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WOMEN AS FOREST MANAGERS: THE EFFECT OF MEN'S OUTMIGRATION

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Dedicated to my parents

Reshama GIRI and Ghana Shyam GIRI

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I am responsible for misrepresentations and glaring omissions, if any.

Prologue

The road towards the final version of this thesis had been an iterative learning process for me. Three years of PhD that at times felt motivating, exhausting, lonely, but now feels endearing and gives me a sense of accomplishment, of a learning process.

Trained as a forester, my interest in gender and social issues got reinforced while working with rural communities in Nepal. Forestry, broadly viewed as a technical science, is ultimately a social issue in Nepal, where its management involves the complexity of sustaining livelihoods, preserving biodiversity, and challenging discriminating power relations. Particularly, the rural women have always fascinated me. I got intrigued, and puzzled thinking how the rural women seek novel situations, in times that seem so challenging. The lives women lead, their adaptive capacity despite the struggling livelihood and discriminatory limitations, have always inspired me to look for positive change despite the difficulties.

I believe that the goal of any research is to contribute to the transformative process of society. I chose to do this by illuminating discussions on social process analysis and adaptive governance of natural resources, with an explicit focus on women as adaptive managers. I hope that this thesis makes a positive contribution in this direction.

Abstract

The community forestry programme of Nepal aims to strengthen the participation of disadvantaged communities, such as women, in the management of natural resources. However, even after three decades, women's active participation remains a challenge. Empirical studies point to various discriminating social structures and mechanisms as factors limiting women's participation. The current trend towards men's outmigration, as observed in the Mid-hills of Nepal, is changing these social structures and might offer new opportunities for women's engagement in community forestry. This research investigates how the dynamic social context brought about by men's outmigration affects women's participation in community forest management.

Employing a case study approach, data were collected from four community forest user groups in the Mid-hills of Nepal, using key informant interviews, a survey, in-depth interviews and focus group discussions. Theoretical concepts such as feminism, gender, and the agency-structure debate were used to guide data analysis.

The case study shows that men's outmigration can increase women's participation in community forest management. However, different structural factors, especially family composition, mediate this influence. In the social context, that is understood as dynamic, women use various microsocial processes to influence forest management decisions as well as shape their roles and rights. Moreover, the findings indicate the need of understanding women's participation as a transformative process that is adaptive and responsive to the changing social context. This process is not well captured by quantitative surveys or statistical data. To adequately assess the progress in women's participation in the management of community forests, complementary qualitative methods need to be used.

These findings allow deriving theoretical, methodological and policy recommendations to support women's empowerment and their effective participation in the management of community forests. At the theoretical level, the study indicates that a mix of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. At the methodological level, it shows the need to employ a carefully designed mix of quantitative and qualitative methods to capture the various dimensions of women's participation and thus enrich our understanding of empowerment processes. At the policy and management level, these findings advocate the need to understand society as a mutable context and analyze the impact of policy measures within a reflexive and adaptive framework. Thus, a nuanced look at social processes is essential to ensure that increasing women's active participation in programmes like community forestry is achieved through a socially just change process that is both adaptive to the changing social context and transformative against discriminating power relations.

Keywords: Men's outmigration, participation, community forest management, women's empowerment, social processes.

Kurzfassung

Das Programm der Gemeinschaftswälder in Nepal zielt darauf ab, die benachteiligten Bevölkerungsgruppen, wie z.B. Frauen, in Entscheidungen über die Bewirtschaftung der natürlichen Ressourcen einzubeziehen. Nach drei Jahrzehnten ist die Bilanz jedoch nicht so positiv wie erhofft. Empirische Erhebungen haben eine Reihe diskriminierender sozialer Strukturen identifiziert, die die aktive Beteiligung der Frauen einschränken. Derzeit wird in den mittleren Höhenlagen Nepals der Trend beobachtet, dass Männer auf Arbeitssuche auswandern. Die führt zu Änderung in den sozialen Strukturen, und kann neue Möglichkeiten für die aktive Beteiligung der Frauen in der Waldbewirtschaftung bieten. Die vorliegende Studie analysiert daher wie sich die soziale Dynamik, die durch die Auswanderung der Männer verursacht wird, auf die aktive Beteiligung der Frauen in die Entscheidungsprozesse zur Bewirtschaftung der Gemeinschaftswälder auswirkt.

Im Rahmen einer Fallstudie wurden qualitative und quantitative Daten in vier Gemeinschaftswaldbenutzergruppen (community forest user groups, CFUG) in Nepal gesammelt. Es wurden Interviews mit Auskunftspersonen, eine umfangreiche mündliche Befragung, Tiefeninterviews mit Frauen und Fokusgruppendifkussionen abgehalten. Als theoretische Konzepte wurden feministische Theorien, Gendertheorien, Agency- und Strukturtheorien herangezogen.

Die Ergebnisse aus der Fallstudie zeigen dass die Auswanderung der Männer die Beteiligung der Frauen in den Entscheidungsgremien der CFUG erhöhen kann. Jedoch hängt diese Beteiligung von einer Reihe Einflussfaktoren ab, allen voran die Familienstruktur (insb. die Anwesenheit erwachsener Männer). Im sozialen Kontext, der als dynamisch angesehen wird, verwenden Frauen eine Reihe mikrosozialer Prozesse um die Entscheidungen, die den Gemeinschaftswald betreffen, zu beeinflussen. Auch verwenden sie diese Prozesse um ihre Rechte und soziale Rolle schrittweise zu verändern. Die Ergebnisse weisen darauf hin, dass es wesentlich ist, die Beteiligung der Frauen nicht ausschließlich anhand von leicht messbaren Indikatoren zu beurteilen, sondern die Beteiligung als Prozess zu sehen, ein Prozess der die Rahmenbedingungen (z.B. die politischen Unruhen) berücksichtigt. Dieser Prozess wird in den Statistiken (z.B. Anzahl der Frauen in Führungsgremien, Anteil der Frauen in Versammlungen) schlecht abgebildet, so dass er übersehen werden kann.

Aus der Fallstudie wurden theoretische und methodologische Anregungen, sowie Politikempfehlungen abgeleitet. Die Studie zeigt, dass eine Kombination aus mehreren Theorien, sowie aus quantitativen und qualitativen Erhebungsmethoden, erlaubt, komplementäre Sichtweisen auf die Fragestellung zu werfen. Erst dadurch wird ein differenziertes und ganzheitliches Verständnis von Prozessen ermöglicht. Bezüglich der Politikempfehlungen unterstreicht die Studie die Bedeutung von lernenden, sich adaptiven Politikprozessen, da nur diese eine Anpassung an die sich verändernden Bedingungen (innerhalb und außerhalb der Benutzergruppe) sicherstellen.

Table of Contents

Thesis structure	10
PART A: WOMEN AND COMMUNITY FORESTRY	11
1 Overview	12
2 Background: Community forestry in Nepal	14
2.1 Nepal in context	14
2.1.1 Farming system and forest resources	14
2.1.2 Women in Nepal	15
2.1.3 Men's outmigration	17
2.1.4 Research on left-behind women and variability	18
2.2 Community forestry and participatory decision-making	20
2.2.1 Community forestry and the concept of CFUG	20
2.2.2 Women's participation in managing community forests	21
2.3 Men's outmigration as a factor in women's participation in a CFUG	24
3 Theoretical concepts related to women's participation in natural resource management	26
3.1 Feminist theories	26
3.2 Gender theories	28
3.3 Theories relating agency and structure	30
3.4 Women's participation as a gendered process with interplay of agency and structure	31
4 Methods	33
4.1 Research strategy: a multiple case study	33
4.2 Research design: an iterative process	34
4.3 Start of fieldwork	36
4.3.1 Site selection	36
4.3.2 Selection and orientation of research assistants	36
4.3.3 Pre-testing the questionnaire	37

4.4	Data collection	37
4.5	Data analysis	38
5	Results: Summary of the papers	40
5.1	Paper I - Development and status of community forestry governance in Nepal	40
5.2	Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal	41
5.3	Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?	43
5.4	Paper IV - Nepali women using community forestry as a platform for social change	45
6	Discussion and perspectives	47
6.1	Summary of the present dissertation	47
6.2	Theoretical implications	48
6.3	Methodological implications	50
6.4	Policy and Management implications	52
6.5	Policy and Management implications	52
6.5.1	Dynamic social context and changing power relations	52
6.5.2	Participation as an adaptive governance process	53
6.6	Perspectives for future research	55
7	References	57
	PART B: PAPERS	73
	Paper I	74
	Paper II	101
	Paper III	113
	Paper IV	127
	Curriculum Vitae	145

Thesis structure

This thesis comprises two constituent parts. Part A presents the overall context, reviews the relevant literature on women and community forestry, details the theoretical and methodological approach, and summarizes the results and implications. Part B comprises the following four papers:

- I. Koirala, R., K. Giri, and B. Pokharel. 2008. Development and status of community forestry governance in Nepal. Proceedings of the Conference on "Forestry in a climate of change", the 2008 National Convention of the Society of American Foresters, held on 5-9 November 2008 in Reno-Tahoe, Nevada, USA.

Rajesh Koirala and I wrote the paper with inputs from Bharat Pokharel.

- II. Giri, K., B. Pokharel, and I. Darnhofer. 2008. In the absence of their men: Women and forest management in the Mid-hills of Nepal. In *Environmental Economics and Investment Assessment II*, eds. K. Aravossis, C.A. Brebbia and N. Gomez, pp. 295-304. Southampton: WIT Press.

I wrote the paper, with inputs from Bharat Pokharel and Ika Darnhofer.

- III. Giri, K., and I. Darnhofer. Outmigrating men: A window of opportunity for women's participation in community forestry? (Accepted with revisions, *Scandinavian Journal of Forest Research*)

An earlier version of this paper was presented at the 2nd Gender and Forestry Conference, held on 15-18 June 2009 in Umeå, Sweden.

I selected the topic of the paper, analyzed the data and wrote a first draft. This first draft was commented on by Ika Darnhofer. After I provided a revised draft, Ika Darnhofer contributed to polishing the text.

- IV. Giri, K., and I. Darnhofer. Nepali women using Community Forestry as a platform for social change. (Accepted with revisions, *Society & Natural Resources*)

An earlier version of this paper was presented at the 4th Young Scientist Forum, held on 29 October 2008 in Vienna, Austria. A later version of this paper was presented at the 'Development Matters Forum', Centre for Development Research, University of Vienna, held on 14 May, 2009 in Vienna, Austria.

The topic of the paper and analytical angle was proposed by me, with some additional suggestions by Ika Darnhofer. I analyzed the data and interviews and wrote the first draft. Based on comments by Ika Darnhofer, I revised the draft. Together we worked to finalize the paper

PART A: WOMEN AND COMMUNITY FORESTRY

1 Overview

While forests are a classic example of human-ecosystem interdependence, approaches to understand the association has varied greatly over the last few decades. With changes from top-down to bottom-up approaches (FAO 1978; Cohen and Uphoff 1980; Chambers 1983; Brownlea 1987; Farrington and Martin 1988), local communities have increasingly come to be considered as key stakeholders for sustainability (Agrawal and Ostrom 1991; Gilmour and Fisher 1991). As a result, the need to involve them and ensure their influence in shaping forestry policies became evident. This led to the formulation of various participatory forestry programmes around the globe.

Nepal is at the forefront of experimenting with the global theme of management shifts (Mahapatra 2000; Giri 2005), where state-based regulations are decentralized, power of decision-making are devolved to the local people, especially regarding the management of forest resources. At present, Nepal has gained worldwide recognition for its community forestry programme (Arnold 1998; Malla 2000; Chakraborty 2001; Pokharel 2004; Pokharel et al. 2005). Despite such significant leaps, challenges remain, particularly in terms of achieving significant women's participation in forest management (Kellert et al. 2000; Agarwal 2001a,b; Neupane 2003; Timisina and Paudel 2003; Buchy and Subba 2003; Upadhyay 2005). Indeed, achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women (Agarwal 2001a; Lama and Buchy 2002; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009).

Concomitantly, in the Mid-hills of Nepal, a trend of men's outmigration has been observed (APROSC 2003; NIDS 2007). This trend has led to changes in social relations and structures, leading to "feminization of communities" (Gill 2003; Pully et al. 2003; Kaspar 2006). The changes include the availability of remittances, an increased workload for women as well as a shift in women's responsibilities and their participation in the public sphere. Studies on these effects have shown a high level of heterogeneity in how communities adapt. In some communities, families without a male-head of household have lost access rights to common resources, while in other communities women have achieved more decision-making powers (Verma 2001; Hadi 2001; Zachariah and Rajan 2001; Haas 2007). Most of these studies have, however, focused on the effect of men's outmigration on women's role within the household (Khaled 2002; Kaspar 2006). The question thus remains whether and how men's outmigration affects women's participation in the management of common natural resources. Given that community forests are an important resource for women, the ability to articulate their needs and priorities, and to ensure that these are met is of particular importance. Hence, the overall goal is to assess which vital conditions and processes can increase women's participation in community forestry.

Based on this background, the central questions that guided this study are:

- What is the current status of community forest governance in Nepal? (Paper I)
- In what ways does men's outmigration affect women's participation in the management of the community forest? (Paper II)
- What factors affect the extent to which women participate in the management of the community forest during men's outmigration? (Paper III)
- How do women shape their social role in the public sphere so as to increase their participation in community forest management? (Paper IV)

This thesis is thus concerned with analyzing whether and how men's outmigration facilitates the process of women's active involvement in the management of community forests. The effects of men's outmigration on women's ability to influence decision-making, their public status and factors leading to heterogeneity need to be better understood. To contribute to this understanding, a combination of quantitative and qualitative methods was used, and a mix of theories was used as a guiding framework for the inquiry.

The following section presents the background and relevance of the study. This is followed by a section where theoretical approaches analyzing women's involvement in natural resource management are explained. The methods section presents the data collection and analysis techniques used in the study. Subsequently, the results are presented by summarizing of the papers I-IV. Thereafter, these results are used up for a broader discussion regarding women's participation in natural resource management. Finally, some thoughts for future research are recommended.

2 Background: Community forestry in Nepal

2.1 Nepal in context

2.1.1 Farming system and forest resources

Nepal is a landlocked country situated between China and India. Topographically, Nepal can be divided into three ecological zones (see Fig. 1), the Mountains (35%), the Mid-hills (42%) and the Terai (23%), each accounting for 7.3%, 44.3% and 48.4% of national population respectively (CBS 2001). In 2007 Nepal had approx. 29 million inhabitants, half of which are women (CBS 2001). More than 80% of Nepal's population lives in rural areas (CBS 2001). Most of the Nepalese are poor with an estimated 38% of the population living below the poverty line (Pradhan and Shrestha 2005:1) at a yearly per capita income of US\$457 (Basyal, 2008).



Figure 1: Map of Nepal (Source: maps/npcgis/NatBio00002.jpg)

Agriculture is the mainstay of the economy, providing livelihood for three-fourths of the population and accounting for 38% of GDP. Agriculture is subsistence based. Agriculture is highly dependent on rain and its productivity has not increased significantly during past decades (FAO 2000). Increasing agriculture production has been hampered by two reasons (ICIMOD 1998). Firstly, farm sizes are very small and land holdings fragmented: the average landholding size per household is 0.96 hectare, with an average of 4 parcels per holding (CBS 2001). In the Mountains and the Mid-hills of Nepal, a majority of households (67.5% and 53.6% respectively) have farm sizes

between 0.025 and 0.051 hectare (Munakarmi 1996 in ICIMOD 1998). Notably, out of the three ecological belts, land fragmentation is the highest in the Mid-hills (0.66 hectare) because land is mostly divided into terraces to counter erosion effects. Secondly, given the high elevation, steep slopes, shallow soils, and high precipitation, intensified cropping is not possible in the Mid-hills and the Mountains (ICIMOD 1998).

A majority of rural households thus depends on livestock and forest resources to supplement their livelihood. Livestock is a source of food, of income and a means of non-cash exchange. It also provides draught power, organic manure for crop production, and is used for transportation. The livestock population in Nepal, in relation to the arable land, is one of the highest in Asia (ICIMOD 1998). The livestock population in Nepal is estimated to be about 6.9 million cattle, 4 million buffaloes, 6.9 million goats, 0.7 million sheep, and 0.9 million pigs (CBS 2001).

Nepal has 3.9 million hectares of forest, covering 27.3% of the country (FAO 2005). Forests provide basic subsistence needs such as fuelwood, fodder, bedding material for animals and to some extent timber. Fodder from forests satisfies about 37% of the total livestock fodder need, and the fuelwood from forests meets about 81% of the total fuel consumption (WECS 1997 in FAO 2000). About two-thirds of households rely on fuelwood for cooking and heating, and an average household spends about 50 person-days for fuelwood collection in a year (Baland et al. 2004). Fuel needs differ in different communities depending upon altitude, climate, and use of agricultural residues. Using kerosene or liquid petroleum gas requires an additional cost of transporting and cow dung cakes are mostly used for manure. Fodder collection is more dominant in the Mid-hills. Therefore, most of the forests in the Mid-hills are managed for fuelwood and fodder and about 65% of these forests have predominantly small-sized timber (Winrock 2000:7). Poor people heavily depend upon forest resources to fulfil their basic (subsistence) needs for fuelwood, forage, timber, medicines etc, as they do not own private forests or adequate agricultural land (Adhikary and Ghimire 2002).

For more than a decade, Nepal has experienced internal conflicts, initiated by a group calling themselves “Maoists”. Starting in 1996, Nepal has undergone severe political instability (Taras 2006). In 2006, after a series of joint meetings between Maoists and the Government of Nepal, Maoists stopped the guerrilla-war and became a political party in the mainstream development. At present, a working parliament, representing all the political parties, including Maoists, is governing the country.

2.1.2 Women in Nepal

The national constitution of 1990 declares that the State shall not discriminate against citizens on the basis of religion, colour, sex, caste, ethnicity or belief. And yet, various customs based on socio-cultural ideology are discriminating in nature. Nepal has more than 100 ethnic groups (CBS 2001) and women’s status varies among these groups. Women of Tibeto-Burman origin generally enjoy more freedom than those of Indo-Aryan origin (APROSC 2003). However, it is difficult to generalize the situation of women in

Nepal, as different ethnic and cultural groups in the country treat the various roles of women with differing emphasis and priority (UNICEF 2006:61).

Men's and women's roles are socially and culturally determined (Pyakuryal and Suvedi 2000:57). In Nepal, a common understanding is that men are responsible for earning economic resources (such as money, livestock etc.) to support the family. Most of the work that requires public contact (e.g., attending public meetings) is performed by men. Also, some activities such as ploughing, fixing a roof, slaughtering animals and felling/splitting large trees are performed exclusively by men (Chhetri 2001). Women are responsible for maintaining the household chores and rearing of children. A study by Bhadra (1997 in Chhetri 2001) states that women perceive themselves as nurturers and men as providers despite spending more time than their men in productive activities.

Women's positions in society are mostly determined by their relation to men, i.e. through their position as daughter, wife, mother etc. Women's inferior status is mainly determined by cultural ideology, symbolism and socio-structural arrangements (Shrestha 1999, ICIMOD 1999). One widely practiced element of cultural ideology is the preference of son over daughter (during child-birth), with Nepal having one of the highest indices of son preference in the world. Sons not only pass on the family name, but also represent insurance for parents in their old age, and can carry out important rituals when parents die (UNICEF 2004:51). Daughters are not allowed to carry out such rituals in Indo-Aryan ethnic groups. In some Tibeto-Burman groups, such as the Gurung, a son-in-law is required to conduct the crematory rituals for his in-laws, thus enhancing the role of a daughter.

Existing symbolism based on purity concepts can also implicitly devalue women (such as defilement and pollution). As an example, women are considered impure when menstruating and during childbirth and are culturally forbidden to enter kitchens and temples. Women have only limited access to resources and only limited control over those they can access. Of the total landholdings, women own only 8.1% and the average size of their land is just about two-thirds of that an average male holding (UNICEF 2004:55). Marital status determines female's access to land and other property. A married daughter is not legally entitled to inherit her parent's property, whereas a wife is liable to entitle her husband's property. But a married woman can only claim her share of her husband's property, if he fails to take care of her needs, fails to provide her with food and clothing, or throws her out of the house (UNICEF 2006:67). Therefore, the daughter not only forfeits her right to parental property but also has only limited rights to her husband's property. Women also lag behind men in terms of education. Women's literacy is 38.9% compared to 63.5% for men (CBS 2001).

Despite the differences in social roles and meagre access to resources, women's contribution to both farm and non-farm activities is significant. Studies on family time-allocation have provided some estimates of rural women's overall contribution to the household economy (Sontheimer et al. 1997; Azad 1999 in IFAD 1999). In the Mid-hills, women were found to do equal to or more agricultural work than men (Sontheimer et al.

1997). In another study, women were found to work about 16 hours a day, compared to men who worked for about 9 to 10 hours (Azad 1999). Likewise, collection of forest products, mainly fuelwood, is primarily women's responsibility (FAO 1997), but in many places men are also involved. A study by Buchy and Subba (2003:315) indicates that both women and men identified fodder collection as one of the most laborious tasks. Many women reported spending more than four hours a day on it.

The work burden of women in Nepal is higher than the global average, not least because the participation of women in productive activities (informal trade) is one of the highest in the world (UNICEF 2004:52). Additionally, IFAD (1999), in a study undertaken in the central Mid-hills of Nepal, concludes that women's workloads are also increased by the geography and infrastructure, men's outmigration and new activities promoted under development projects. Collecting fuelwood, water and fodder becomes much more tiring and time consuming in the Mid-hills and the Mountains of Nepal due to difficult terrain conditions and poor access to roads, markets and water supplies, and thus consuming more of women's time. Similarly, a study undertaken by the Asian Institute of Technology in 1999 (IFAD 1999) in three villages in Kavre Palanchok district, found that men's outmigration doubled women's physical work burden and also increased women's community activities, especially for those women without sons. Women-headed farm households have a hard time, particularly when male labour is not available for tasks such as ploughing, which is taboo for women. Finally, newly promoted development activities such as in the case of forest management, women were found to carry out pruning and thinning of trees and were also involved in raising fodder species, because men were often absent.

Women's position in Nepalese societies can, however, vary. Wealth can affect the division of labour as wealthier women delegate some responsibilities to employed labour (Buchy and Subba 2003; Rankin 2003). Age and position of the women within the family (e.g. daughter, daughter-in-law or mother-in-law) also can affect decisions on who does what (Bhatt et al. 1997; Shrestha 1999). Caste affiliation seems to have some influence on the role and status of women. For instance, among the (so-called) lower caste people, economic imperative seems to put women next to their men in power status (in the absence of economic disparity) and for their contribution in maintaining the family economy (Chhetri 2001).

2.1.3 Men's outmigration

Migration has been a widespread phenomenon across the world. Nepal has had a long history of outmigrating men (ESCAP 1995), and in some rural districts, up to 70% of men outmigrate (Seddon et al. 2002). Despite being a dominant phenomenon, this is one of the least researched and least understood issues in Nepal. While the migrants, their problems, earned income, networks, development etc. have received considerable attention and have been the subject of extensive research, the gender dimension of migration, particularly the source communities and those left behind, has been largely

under-researched (Rigg 2006). In Nepal, scholars have investigated the interrelationship between migration and poverty, the remittance patterns of the migrants, and the impact of remittances on poverty alleviation and rural development (Regmi and Tisdell 2002; Seddon et al. 2002; KC 2004; Thieme and Wyss 2005). However, few studies have attempted to tie economic changes to the social and cultural changes that arise due to migration and are reinforced by it (Rigg 2006). In this context, it is important to examine the gender dimension of migration as gender roles, relations and inequalities not only affect those who migrate, but also impact the economic and social situation in the sending communities. Indeed, when men outmigrate, they leave their wives, mothers and daughters behind in the area of origin. These left-behind women need to reorganise themselves and cope with new challenges.

2.1.4 Research on left-behind women and variability

Previous studies have indicated that men's outmigration can lead increasing independence to the left-behind women. In the absence of their male guardians, women may have better access to resources (Hadi 2001). Women may also face an expanded space where they can make their own decisions, develop their own coping strategies (Hadi 1999; Zachriah and Rajan 2001). This can lead to a (re)structuring of traditional gender roles and a modification of cultural values (Hadi 2001; Sadiqui and Ennaji 2004). It can lead to changes in the gender division of labour including a "feminization of agriculture" (Gill 2003; FAO 2006). Women's labour contribution to agriculture and in the household can be more visible to the family members, and therefore more appreciated, thus increasing their status (Zachriah and Rajan 2001). Sometimes, the absence of their husband makes left-behind women more active in community development activities and farming (Deshingkar and Sven 2004:27).

Research on "Gulf wives" (women whose husbands outmigrate to Arab countries) in Kerala, India, asserts increased autonomy and social status of women in the absence of their husbands (Zachriah and Rajan 2001). When husbands outmigrate, women can develop innate capacity for decision-making, not only within the household but also within the community. "The husband's absence, increased economic resources at the disposal of the wife and the expansion of space and communication in public affairs (such as banking, schooling of children) have all been instrumental in transforming a shy, dependent woman into a self-confident autonomous manager with a status quo equal to that of any man in the neighbourhood" (Zachriah and Rajan 2001:69).

Kaspar's (2006) research on labour migration and gender relations in Kalabag village in Nepal reveals disparate and temporary changes in left-behind wives' decision-making. Her findings showed that left-behind wives take on many of their outmigrated husband's tasks which increase their workload. And yet, their influence in decision-making is constrained by several factors such as household type (extended versus nuclear family), relevance of decision factor (strategic versus operational decisions) and duration of absence of their husbands. She asserts that though women's participation in

public affairs increases, this participation is limited to increased physical attendance only. Moreover, women's expanded role and decision-making reverts back to the original situation once their husbands return to home, except in financial management and presence at community meetings (Kaspar 2006:299). And yet, she reports that some left-behind women may participate more in decision-making after migration, than they did prior to their husband's outmigration (Kaspar 2006:295). It was also noted that the prolonged absence of men can allow women to become more vocal in village decision-making.

Karki and Bhattarai (2004) state that, during men's outmigration, women in the Mid-hills are forced to take up chores, traditionally done by the men. Women ploughed the fields, repaired and replaced roofing material on their houses, took care of livestock and did every household chores, which was otherwise done by the men (Karki and Bhattarai 2004:93). Such changes imply structural adjustment in society where women, due to the need to cope with men's absence, break traditional forms of gendered activities and take up new roles and activities. However, the extent of benefits that women derive during men's outmigration are determined by factors such as women's age, their relative position in family such as wife or mother (Sadiqui and Ennaji 2004), and their ability to successfully adapt to the changing roles (Khaled 2002).

However, other studies contradict such positive images (Gurung 1999; Verma 2001; Haas 2007). They assert that men's outmigration leads to increased burden of responsibility and labour and further marginalization of women (IFAD 1999; Gurung 1999; Gurung and Gurung 2002). Also, they point out that this increase in women's labour does not necessarily result in women's control over the products of that labour (Gurung 1999; Verma 2001). Though women acquired men's roles in their absence, they often did not acquire their authority and decision-making power (Kaspar 2006). Another aspect is that the effects of outmigration are often temporary, and the gender relations revert back to the initial situation, once the husbands return. Therefore, it is still unclear, under which conditions men's outmigration can lead to changes in gender roles, especially with respect to women's increased access to decision-making.

Although it is widely assumed that women experience increased financial gains due to men's outmigration, in many poor families, the absence of their husbands can create a lack of economic means and can also lead to destitution for many of the left-behind women (Sadiqui and Ennaji 2004). If remittances were used to hire farm labour that would lessen women's extra work (FAO 1995). However, remittances might have no effect in cases where the remitted income is used for different purposes such as buying land. In such case, migration hardly has the often assumed effect on changing norms on gender roles (Haas 2007:35).

2.2 Community forestry and participatory decision-making

2.2.1 Community forestry and the concept of CFUG

FAO (2006) defines community forestry as any situation which intimately involves local people in a forestry activity. Community forestry programme arose out of the discourses of ecological crisis and forest degradation in Nepal (Nightingale 2003:527). Community forestry in Nepal aims to cover the basic needs, especially for those who are most dependent on forest resources; to promote community development through the income obtained from the sale of the forest products; and to conserve forests. Community forests are managed through a system where local people control, manage and use forest resources for their own benefits (Acharya 2002; Adhikary 2002), i.e. local people are involved as decision-makers (Winrock 2002). Community forestry stands on: a) institutionalization of farm-forestry relations, b) devolution of rights from the state to citizens (Belbase and Regmi 2002) and c) full entitlement of benefits to local users (except in the Terai, where local people have to pay a small percentage of revenue to the State).

The rights linkages are institutionalized by forming a user group, called a community forest user group (CFUG). The Forest Regulations 1995 (HMG/N 1995) and the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) include a detailed description of how the community forestry programme is to be implemented. The process of handing-over the management (but not ownership) of the forest should start with a written application to the Department of Forest which then sends a technician to help the user group prepare the constitution. The forest "constitution" outlines the rules for the use and management of the community forest, the rules for identifying the forest users, the rules for establishing the executive committee as well as their respective rights and responsibilities. All the households that use a particular forest, as demarcated in the operational plan of the forest, can become members of the CFUG. Department of Forest recommends a standard procedure using which the general assembly (comprising at least one member of every household of the user group) can elect an executive committee through mutual agreement. The general assembly should hold the rights to decision-making and the executive committee's role is restricted to implementing the decisions taken by the general assembly. Once the constitution is agreed upon, it is submitted to the District Forest Office which registers the user group.

Once registered, based on inputs from forest users and with the assistance from the District Forest Office, the executive committee develops an operational plan for the forest. This plan describes the location and physical condition of the forest, and prescribes specific silvicultural prescriptions for protecting and improving the forest. It specifically describes what type of forest products can be collected and harvested and how and to whom benefits from the forest are distributed. After the District Forest Office

approves the application, the rights and responsibilities of forest are handed over to the user group, now called as CFUG.

Decision-making takes place at two levels in a CFUG: the executive committee and the general assembly of all users. The executive committee's role is more that of facilitating and implementing the decisions taken by the general users. An executive committee is understood as the representatives of the general users, and is meant to bring forth the concerns of the general users. An executive committee usually has between 11 and 15 members, but the number may vary depending on the context.

At present, 1,654,529 households are members of 14,389 CFUGs, which cover about 31% of the total forest area in Nepal (DoF 2007).

2.2.2 Women's participation in managing community forests

The basic concept of community forestry rests on the notion that forests should be managed by those who use them. Involving the real users of forest can incorporate their knowledge into forest management and motivate to sustain conservation. Women are the primary forest users since they are responsible for collecting most of the fuelwood, fodder, leaf compost and bedding as well as controlling grazing. Being primarily involved in the collection and management of forest resources, women have developed a traditional knowledge base about the management and utilization of their forest (Agarwal 2001b). Such traditional knowledge can play an important role in the conservation of different species and varieties depending on their usefulness to the community (Upadhyay 2005:229). Considering women's dependence on and knowledge about forest resources, women's participation is deemed essential for the sustainable use of forests and the management of community forestry programmes.

Men's and women's interests and incentives for environmental resource management can differ in many settings, partly because of their socially constructed roles, and partly because of their lesser property rights and gendered interests (Masika and Joeke 1997:10; Cornwall 2003). This can lead to differing needs and use patterns of forest products between men and women. Men's and women's interests and incentives for environmental resource management can differ even within a household. Paudel (1999, quoted in Upadhyay 2005) highlighted the different priorities of women and men in the use of forest products in Nepal. Women opted for fuelwood, fodder and grasswood, whereas men opted for timber, fuelwood, and non-timber forest products. Women were concerned about covering their daily consumption needs, which were supplemented by forest products. Men's priority was to use forest as a supplement to the household income. Similar results are put forth by Flickenger (2003 in Howard 2003) in her study of the use of plants in Western Ghats in India where men gather plants primarily for use in agriculture (fodder and mulch); while women use the plants more for household purposes (medicines, cleansers, fibre, food and tools). Thus women's needs and priorities must be incorporated into community forestry, to ensure a just allocation of benefits. Since CFUGs regulate the mechanisms to manage and use the forest

resources by devising certain rules and control mechanisms, women's participation in community forestry can provide an avenue where women can voice their needs, priorities and perspectives and design mechanisms to fulfil them.

The Government of Nepal has emphasised the role of women's participation in various Development Plans. The Forest Act 1993 underlines women's role in community forestry programme. Different measures are recommended in policy and practice to increase women's participation. As an example, one of the widely used provisions is to allot one third of the membership in the executive committee to women. Likewise, the Operational Guideline of the community forestry program 2002 (HMG/N 2002) stipulates that for each household that is a member of a CFUG, the name of two adults (a woman and a man) should be registered in the forest constitution. The aim of listing a man and a woman for each household is aimed at encouraging women's participation in forestry meetings.

To distinguish between different levels of participation, Arnstein's (1969 in Ananda 2007) proposed a "ladder of participation". This ladder provides eight rungs, whereby each corresponds to a specific extent of citizen's power in determining decisions. The bottom rungs of the ladder are (1) "manipulation" and (2) "therapy" which describe levels of non-participation. Here the objective is not to enable citizens to participate in planning or conducting programmes but to enable power holders to educate the participants, i.e. people are told. Rungs (3) "informing", (4) "consultation" and (5) "placation" denote to levels of tokenism that allow the chance to hear, to speak and to advise but lack the power to ensure that those views will be considered, i.e., power holders retain the rights to decision-making. Rungs (6) "partnership", (7) "delegated power" and (8) "citizen control" involve increasing negotiation and decision-making of participants with traditional power holders.

Agarwal (2001a:1624) has adapted Arnstein's ladder of participation in community forestry. She puts forth six levels of participation: nominal < passive < consultative < activity-specific < active < interactive. Each level is determined by the extent of people's activeness. She states that mere membership to a group without any involvement reflects "nominal participation". "Passive participation" refers to a situation where women attend meetings and merely listen to decisions alone, without actually voicing their concerns. "Consultative participation" seeks for women's opinions in specific matters without any guarantee of their inputs influencing final decisions. "Activity-specific participation" is where women are asked to (or volunteer to) undertake specific tasks. Further, her notion of "active participation" is that women express their opinions, whether solicited or not and take different initiatives. The highest level, "interactive participation" is when women have the ability to speak, influence and implement the decisions.

Although community forestry is said to be a participatory process, active participation of women is still lagging far behind expectations (Shrestha 2004). Empirical evidences suggest various factors that constrain women's participation in community forestry.

Some argue that the socio-cultural context of Nepalese society and local power structure are the major barriers hindering the participation of women (Agarwal 2001a; Lama and Buchy 2002; Gupte 2004; Agrawal and Gupta 2005). This socio-cultural context is influenced by factors such as caste, wealth, age, education as well as individual status in the society and in the household (NPC of Nepal and UNICEF 1996; Agarwal 2001b). Additionally, women's high workload (IFAD 1999), the inadequate timings of forest meetings (Lama and Buchy 2002), the resistance from village men on the basis of gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lama and Buchy 2002) are found to influence women's participation in community forestry.

Decision-making processes in CFUGs tends to be captured by wealthier and upper caste men (Tiwari 2002; Gauli and Rishi 2004; Maskey et al. 2006). Poor individuals participate in certain tasks (forest protection, participation in thinning, pruning) as opposed to rich individuals who participate in decision-making (Maskey et al. 2006: 270-272). Gauli and Rishi (2004) state that the level of participation in decision-making of lower castes and women was low compared to middle and upper castes and men. Lama and Buchy (2002) condemn the social and gender blindness of community forestry stating that it fails to account for and address the in-built shortcomings of participation where power and status quo determines participation to a large extent. They also note that the current focus of community forestry is on the biophysical dimension of natural resource management (e.g.: greenery, good harvesting stock of trees etc.) but little has been done to reduce the drudgeries of women. As such, women's interests and concerns in community forestry are not well addressed and very few decisions that directly benefit women are implemented.

The system of representation in CFUG and executive committees can also lead to differences in participation and decision-making (Agarwal 2000; Nightingale 2001; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009). Gautam (2004) puts forth that the number of women into leadership positions is increased through promotion of 'women only' CFUGs. However, out of some 14,380 forest user groups formed so far, only about 770 are 'women-only' groups (DoF 2007). Some authors also pointed out that women-only groups are few in number, small in area, and with forests of poor quality (Gentle 2003; Rai and Buchy 2004). Therefore, management of such CFUGs cannot be equated with women's improved decision-making.

Agarwal (2000:305) states that the virtual absence of women from the decision-making bodies can lead to significant gender inequalities in the distribution of costs and benefits, and a range of observed or potential inefficiencies in functioning of the overall system. Nightingale (2001) points out that women's representation in executive committees can bring forth women's decisions. She explains that women's representation can also increase women's value from mere labour contributors to decision makers arguing their own perceptions, which can be regarded as scaling up in the social hierarchy.

Women's opportunities to influence decision-making in executive committees rest not only on getting women into these committees. It also depends on how and whether the women in committees represent women's interests, whether they effectively raise their and other women's views and, when they do, if they are heard (Upadhyay 2005). Acharya (2006) suggests that by positioning women as authoritative decision-makers (e.g. by assigning them vocal positions such as President or Secretary) in 'mixed' executive committees of CFUGs, women can actually access and control the decisions and address their concerns. Acharya (2006) cites the example that when women made decisions, they allocated a significantly larger share of funds (as compared to men) for social and community development activities, which can contribute to addressing the issues of poverty and social equity in Nepal.

Other factors that can affect the participation of women are dominance of local elites (Nightingale 2001), systemic gender ignorance in forest policies and programmes (Agarwal 2001a:1623), exclusion of women during the initial stages of community forestry handover (Giri 2005b), an apparent lack of interest, lack of self-confidence and awareness (Nightingale 2001; Lama and Buchy 2002), inferiority, vulnerability and a lack of transparency (Lachapelle et al. 2004).

Generalized empowerment strategies and plans of action will prove to be meaningless, if marginalized and disadvantaged groups such as women remain isolated or ignored, particularly because mainstream development policies and programmes almost invariably fail to reach them. Given that a) community forests are an important resource for women for fulfilling the subsistence household requirements; b) that men and women differ in their needs, priorities of forest products, and c) men and women adopt different management perspectives to address their needs in community forest management; it is imperative to include women and encourage them to articulate their needs and priorities. Upadhyay (2005) emphasizes that excluding women in community forestry can result in negative consequences not only for gender equity and women's empowerment, but also for efficient functioning and long term sustainability of these initiatives. Integrating women's needs and priorities in community forestry is thus essential to promote sustainable conservation of community forestry (Agarwal 2000; Agarwal 2009).

2.3 Men's outmigration as a factor in women's participation in a CFUG

Women's involvement and active participation in decision-making is essential to ensure that women's needs, priorities and perspectives are incorporated in the management of the community forest. However, increasing women's involvement is influenced by the socio-cultural context of Nepalese societies. However, such socio-cultural contexts are not static but undergo continuous adaptations under different mediating factors. Given that men's outmigration can lead to social transformation in gender roles and behaviours, this thesis investigates the ways in which men's outmigration affects women's participation in community forest management. By building on gender and

feminist theories, as well as by discerning the relative role of structures and individual agency, the goal is to the better understand how women themselves perceive the effect of men's outmigration on their ability to take on a more active role in the CFUG.

3 Theoretical concepts related to women's participation in natural resource management

“Nothing natural about natural resource management.”
(Anna Tsing, 1999:9)

As Tsing puts forth in the above quote, natural resource management is all ‘made’, both regarding the epistemological understanding of power and knowledge (Mohanty 1991; Mohanty 1998; Gururani 2002a) and concerning the application of techno-scientific ideas (Ojha et al. 2009). Moreover, resource management occurs in a social context, where differences in culture, norms and power relations regulate the systemic functioning of natural resource management. As documented in previous sections, women's participation in the management of natural resources such as forest often involves complex and interrelated parameters. This complexity stresses the need of an embracing concept that allows a careful analysis of the extent of women's participation in forest management, while taking into account the power relations in a given social context.

In this perspective, general concepts of Feminism and of Gender are discussed as approaches for understanding the division, role, knowledge and influence of women and men in environmental decision-making. Particular focus is given to understand such differentiation from a power perspective in both macro (related to men's outmigration) and micro (household roles and relations) perspectives, and how, why and when, such power relations get affirmed, negotiated, or changed. To understand the power dynamics and their influence to social change, theories relating to agency and structure are used.

3.1 Feminist theories

Feminist theories denote a range of theories with the basic principles of “Feminism”, which asserts equal rights and demands legal protection for women. Feminist theory is manifested in various forms (e.g. Marxist feminism) and disciplines (history, environment etc.). Central to studying women's roles and relations with the natural environment, Ecofeminism emerged in the mid-1970s, and was the first attempt to theorize these interactions (Banerjee and Bell 2007). There themes are at its core: exploitation, domination and oppression (Sargission 2001). Ecofeminism has itself come a long way since its inception, and there is now vast diversity within the field. The diversity can be broadly categorized into three positions: (a) essentialist ecofeminism, (b) materialistic/post-structural feminism, and (c) colonial/third-world feminism.

Essentialist ecofeminism alludes to a conception that there is a natural or essential connection between women and nature that gives women an innate understanding of

nature (Chafetz 2006). It contends that women, by virtue of their biologically based differences, are superior in some areas, such as nature and environment. This superiority is termed as the “feminine principle” (Shiva 1988). Many other eco-feministic writers supported the assumption that women, due to their proximity to, and intuitive relationship with nature develop innate “women-nature connections” (Shantz 2002). This position also contends that women’s oppression and destruction of the environment are interconnected forms of domination (Rogers and Shutten 2004). Essentialist ecofeminism plays a major role in questioning canonical knowledge and standards through an utopian perspective (Sargission 2001). It has also documented women’s unexplored involvement, role and knowledge in environmental management. However, its essentialist epistemic privilege (women as ‘essential natural lovers’, women as ‘holding nature’s knowledge’ etc.) has been extensively critiqued (Agarwal 1992; Leach 1992; Burley 2001). These critiques almost uniformly argue that such privileges might represent the inequalities and domination (now by women of men) of the very traditions it romanticizes. Also, it tends to sideline questions of inequality and social organization of oppression (Chafetz 2006). Further, essentialist ecofeminism tends to use “women” as an undifferentiated category, assuming that all women have the same kind of sympathies and understandings of environmental change. This is considered by many as too idealistic, and has been criticized for not focusing on the actual conditions of women (Leach 1991; Agarwal 1992; Burley, 2001). This critique highlighted the need to study women’s relationship with the environment in particular social, historical, and material contexts.

In response to such a critique, material/post-structural feminism espouses that material and other structural conditions where people live, are complicit in producing particular kinds of environmental problems. These problems place additional responsibilities on women in charge of securing the subsistence needs of their families (Agarwal 1994). Agrawal (1992) pinpointed the importance of material practices (which also includes issues of caste, class, race and gender) in bringing women closer to nature. This close association gives women more understanding and knowledge. Taking a case study in India, she puts forth the idea, that since women are primarily responsible for cooking and thus for firewood collection, they have to spend time in forest. This obligation of practice has increased women’s knowledge of nature. Leach (1991:12) espoused that women’s relationship with their environment, just like that of men, is shaped by specific social and economic processes, and that their interests and opportunities change as an outcome of their relations with men and with each other (see also Burley 2001). Other factors such as caste (Gupte 2004), access to particular types of knowledge, spaces and resources (Rocheleau et al. 1996; Rocheleau and Edmunds 1997; Reed 2000; Freidberg 2001) can equally determine the relationship between women and the environment.

Despite the fact that essentialist ecofeminism and materialist/post-structural feminism are based on different assumptions, there is a common ground regarding women’s environmental knowledge. Both of these positions put forth the idea that women’s

knowledge is valid and important and that their participation in environmental decision-making needs to be safeguarded. This is particularly the case in developing countries, where women face continued domination and oppression by men.

Contrary to both essentialist ecofeminism and material/post-structural feminism, Colonial/Third-world feminism emphasizes the urgent need to decode the essentialism of both 'women' and 'culture'. Post-colonial/Third-world feminism (Mohanty 1991,1998; Gururani 2002b; Grewal 2001; Nesiah 2003; Pyle 2006) critiqued the implicit assumptions to see power in binary terms (Western versus Third-world). They pointed out the universal tendency (of colonialization) and of overgeneralization (of white concerns) implicit in the assumptions putting the 'western women' as the reference for modern (Mohanty 1991, 1998). Contrasted to the (white) western women, the third world' women were naturally portrayed as victimized, in the grip of their outdated cultures, and thus needed to be saved.

Post colonial feminism asserts that development is not necessarily linear, power structures are not static and relations are liable to change. Also, women in the Third-world are not always passive receptors, but can actively shape and negotiate their social world. This emphasis requires a close look on how such negotiations, as well as the associated resistance, are taking place at the given context. At this point, gender theories can provide a framework to understand processes of the (re)definition of men and women as categories, as well as the (re)organization of social relations, where power is both contested and reproduced.

3.2 Gender theories

While feminism rests on the notion of biological sex (of masculinities and femininities), gender theories imply the social and cultural construction of sex, which is investigated in strict opposition to any kind of naturalization. This indicates that categories of men and women are social constructions, which are formed out of norms, expectations, and laden common-sense of what it means to be a man or a woman in a particular space and time (Gildemeister 2004 in Flick et al. 2004). Thus, the social construction of gender is achieved by obvious and subtle (power) relations that assign females and males to social roles and social spheres where they learn being women and men respectively (Burely 2001:165). While the gender approach offers the possibility to analyse the social construction of sex and the resulting similarities and differences due to such socially constructed practices, its main strength is that it seeks to uncover the power differential between them and the inequalities that the system of gender generates. Gender studies do not necessarily claim for the equal weight of both sexes (as feminism does), but examine the unequal distribution of power.

Thus, gender theories focus on questions of organization and performance of social relationships. These are understood as a relation of power and thus as a process, not as a state. As Butler (1990 in Malson and Swann 2003) has argued, gender is

performed by subjects and it is only through this performance that gender takes on any meaning at all. Yet, these performances are imbued with power, which brings forth the differentiation among the performers. Butler's work has put forth the idea that gender is not static but rather is constantly (re)defined and contested through the contexts within which it is invoked.

Pratt and Hanson (1994 in Naples 2009) argue that place is one context within which gender is constructed. Such constructions are related with material and symbolic meaning of places that were significant in shaping women's employment and accessibility. Furthermore, the qualities seen as male or female in a specific society may be different, or vary in different social class or ethnic groups or even families. Culture plays an important role in the choice of life options, and integrates with economic explanation. Concepts such as "women's work" or "men's work" are powerful in making jobs seem "suitable" or "unsuitable" for females and males; and strongly contribute to the "sex-labelling" of any process or domain, e.g. occupation (Acker 1990). In this way, concepts act as symbolic boundaries. Further, structural boundaries reinforce conceptual boundaries such as rules prohibiting men and women from doing work deemed to be fit only for the other. (Epstein 2006 in Chafetz 2006:46).

However, the work of Butler, Pratt and Hanson fail to take note that the context/place is not a static background for social relations, but that is constituted by social relations that can change. As illustrated by Gururani (2002a,b) in a case study in the Himalayas, gender roles and social relations are in constant reconfiguration. She states that social relations constitute environments and are transformed through daily interactions of people, forest and work. These interactions provide an excellent foundation from which to examine the mutual constitution of social relations and environments. She asserts the idea that gender relations are shifting.

Likewise, Nightingale (2006) emphasizes gender as a continual process of producing as well as deconstructing social relations. Based on a case study of community forestry in Nepal, she argues that gender and other constructs, such as caste, are continually constituted and contested. She provides an explicit focus on how gender and environment are mutually constituted. She conceptualizes gender as a process in a context by which power relations are performed and resisted.

While gender theories highlight the importance of social (power) relations between men and women in everyday practices, they do not explain how human actions involve persisting (and changing) patterns of power relations. Theories relating agency and structure can help to better understand the nature and the use of power in society, and the ways in which different social groups attempt to negotiate and challenge prevailing power relations.

3.3 Theories relating agency and structure

There is a long-standing scientific debate regarding the relative importance of human agency and of social organization of 'structures' as causes of societal change. The concepts of agency and structure refer respectively to peoples' capacities to act within a social context, and the basic organizational features of particular societies. At stake is the question of whether human actions are primarily the product of individual volition or of structures that surround them.

Scholars working with the concept of structure put forth the idea that there are two foci of analysis: that individuals' attitudes and behaviours are shaped in varying ways and to varying extents by the position that person holds in a social structure, and that the properties and trajectories of social structures themselves need to be analyzed. They espouse the notion that structures act as factors of causality and can vary from social class, religion, gender, ethnicity, tacit norms and customs (Ojha et al. 2009). Human being's roles within this process are merely limited to act as 'bearers' of the structures. Thus, humans do not make actions themselves, but under circumstances directly encountered, given or transmitted by, or within specific structures indicating that structures determine human actions (Meyer and Jepperson 2000; Fuchs 2001; Lopez and Scott 2002).

Scholars working with the concept of agency, on the other hand, focus on the capacity of individual humans to act and make their own choices (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Roy Chowdhury and Turner 2006; Banjade et al. 2006; Fudge 2009). The concept of agency conveys volitional, purposive and intentional aspects of human activity; that generate power. Thus, an agency perspective provides a more optimistic outlook on the humans' ability to bring about social change (Elsop et al. 2006:236).

Over the years, this abstract polarity between agency and structure was critiqued resulting into an increased understanding that both agency and structure cannot be understood in isolation from each other. Giddens's theory of 'structuration' posits that it avoids structural determinism through constant emphasis on the interplay of structure and agency (Giddens 1984 in Chouinard 1997). It offers a broader conception of social power as the outcome of struggle over allocative and authoritative resources (i.e., material wealth and decision-making power) and recognizes the significance of spatial organization in the structuration of social relations. Despite its loopholes (see Gregson 1986), structuration theory has pointed out the need to take a co-deterministic approach and understand the roles of structure and agency as complementary in mediating social actions (Dalton 2004; Gustafsson-Larsson et al. 2007; Hitlin and Elder 2007; Hitlin and Long 2009).

Women's participation in natural resource management, and forestry in particular is dominated by empirical studies focusing on the role of structures on limiting women's participation (Lama and Buchy 2002; Agarwal 2001a; Gupte 2004). Additionally, these

studies take an institutional perspective and limit the exploration of women's participation in formalized structures such as the executive committee and the general assembly (Rai and Buchy 2004; Acharya 2006). Such structure-laden perspectives, while helping to identify the factors that constrain women's participation, tend to fall into the trap of understanding structure as an immutable and static context. As such, the everyday gender and power relations and informal ways in which the resource actually is used and managed are neglected and remain invisible. Moreover, while structural resources are often critical, they are not always sufficient to lead to change (Kabeer 2001; Arora-Jonsson 2008b). This requires a closer investigation of agency in understanding community forestry as well as of exploring women's participation.

3.4 Women's participation as a gendered process with interplay of agency and structure

This thesis uses a mix of theoretical approaches such as post-colonial feminism, gender and structuration to analyze women's participation. This mix of theoretical concepts conceives women's participation as a gendered process that involves an on-going interplay of agency and structure. While both post-colonial feminism and gender theories stipulate the need of understanding the social context to analyze power relations, this thesis adopts gender theories for its emphasis on unequal social processes, but not only on women per se. Indeed, this thesis neither sees men and women as two opposite monolithic blocs, nor does it consider that active women's participation is possible only after the retreat of men. Rather, this thesis attempts to elucidate the processes through which different actors like women (and also men) effect social change and shape the means to participate in community forest management.

Thus, this thesis investigates women's participation as a gendered process that involves a continuous interplay of agency and structure. Using this theoretical lens, the aim is to signal that the interplay of power structures are not static at a given context, that relationships are being forged and changed in an on-going and open process, all and that new windows of opportunities can open at any time. Understanding women's modes of asserting their rights, their resistance as well as their reproduction of structures requires a nuanced approach. This will allow a better understanding about how women play out their concerns, in institutional structures and in informal settings. Thus, the use of structuration theory within a gendered process will provide a closer look at the micro-social processes taking place within and outside the executive committee or the general assembly. It will help in understanding how women confronted challenges, reproduced orders, and contributed to the practice and discourse of participation in resource management. This will illustrate different dimensions of agency as well as structures that can account for variability and change in women's capacities for critical interventions in participation, taking into account the diverse contexts within which women act, as well as the constraints that they continually face. Ultimately this type of theoretical perspective suggests how diverse social practices with different

logics may be at play, producing largely invisible tensions that can have significant impacts on women's participation..

4 Methods

This chapter first explains the research strategy of the dissertation. Then it elaborates the research methods to collect and analyze data.

4.1 Research strategy: a multiple case study

Case study research (Yin 2003) was selected as a research strategy because it allows systematic investigation while maintaining a contextually rich understanding of a phenomenon (Yin 2003; Flyvbjerg 2006; Baxter and Jack 2008). This is the most suitable strategy for this study because the issue was 'women's participation in forest management' but this issue could not be adequately understood outside the context-effects of men's outmigration in specific CFUG. Case study approach, which has been widely used in exploring forest management, has demonstrated its ability to capture the complexities involved (Banjade and Ojha 2005; Muhammad et al. 2009).

Given the limited empirical research that addresses the effects of men's outmigration on women's participation in forest management, part of this study is exploratory. The aim was to identify the key effects of men's outmigration on women's participation. The other part employs explanatory approaches to systematically explain the social mechanisms that can affect women's participation in community forest management, with an explicit focus on men's outmigration, but not limited to it. To ensure a minimum diversity in the empirical material, and to allow for cross-case comparisons, this study used a multiple case study approach (Baxter and Jack 2008).

Local social norms and ethical concerns were taken into consideration (Scrimshaw 1990) and empirical data were collected in the field, using a mixture of qualitative and quantitative methods. A qualitative approach emphasizes 'lived experiences', locates the meanings, perception and assumptions of people, and connects these to the social world around them (Miles and Huberman 1994:10). A quantitative approach emphasizes measuring variables and testing hypotheses that are linked to general causal explanation (Neuman 2006:151). The mix of qualitative and quantitative approach is designed to identify as much of the full spectrum of complexity associated with women's participation in forest management, as possible (Chaseling 2000; Baxter and Jack 2008).

The analysis builds on compounding the insights and interpretations obtained from in-depth interviews, focus group discussions, participant observations and a quantitative survey. This mix of methods also allows enhancing the validity and reliability of results (Patton 1990; Yin 2003; Flyvbjerg 2006). Since the research was conducted after building a good rapport at research sites, the data was further validated through inputs from key experts of different organizations. Further, the interviews and focus group discussions were not only used for data collection, but also for joint analysis and validation of previous results.

The case presented in this thesis can not be generalized to a population without considering the similarities of context, but may be used to guide research to increase understanding of the associated complexity of women's participation in natural resource management.

4.2 Research design: an iterative process

The process of collecting and analyzing data was kept reflexive and iterative. The data collected at one step were analyzed, allowing the researcher to fine-tune the next data collection step (see Table 1). As a first step, the existing literature on participatory forest management was analyzed with an explicit focus on women's participation. This helped obtaining an enhanced understanding of the current status of community forest management and associated governance challenges (Paper I). While women's participation emerged as a challenge, the lack of previous studies investigating the impacts of men's outmigration on women's participation in forest management also became evident. This necessitated conducting an exploratory study to assess the effects of men's outmigration on women's participation.

As a second step, the exploratory study was conducted in two CFUGs in Kavre district: "Chande Majuwa" and "Katunje Pakha". This study confirmed the role of men's outmigration in women's participation and allowed to identify a number of areas that are strongly affected when a husband outmigrates (Paper II). This study also helped to extend the set of questions used in a third step, where the effect of men's outmigration on women's participation in community forest management was assessed using a survey. This survey was conducted in two CFUGs in Ramechhap district: "Majuwa Bhumithan" and "Dugursing Hup" (Paper III). Undertaking the survey in Ramechhap ensured an adequate sample size and some variation in the practices that women adopt for participating in community forest management.

While both the exploratory study and the survey indicated an association between men's outmigration and women's increased participation in community forest management, the lack of qualitative information allowing to understand the social processes and mechanisms through which women's participate in community forest management, within the dynamic social context (as men's outmigration) became evident. To collect information on this, informal discussions were held with women and men both, as well as focus group discussions with women. This allowed to better capture the women's perspective on their involvement in community forestry, the associated challenges the women face and the strategies they use to tackle such challenges (Paper IV).

Table 1: Overview of the steps in data collection and analysis

Steps in the process	Details of collected data	Details of methods used for collecting data	Where	When	By whom
Literature review	Review of global changes in participatory policies and its effects on forest management in Nepal. Review of community forestry from sustainable livelihoods and governance framework. Review of existing challenges, with an explicit focus on women's participation in community forest management. Review of effects of men's outmigration on women's role and position in diverse settings and programmes across the globe.	Review and analysis of existing theoretical, methodological and policy related documents, journals, policy briefs etc. on women, natural resource management, community forestry, governance, migration etc	Austria and Nepal	October 2006 - September 2007	Researcher
Exploratory survey	Effect of men's outmigration on women's participation in community forest management. Factors that can mediate the effects of men's outmigration on women's participation	Three focus group discussion with 30 women. Informal discussion with men 5 key informant interview Review of the operational plan, constitution and minutes executive committee meetings of each CFUG.	"Chande Majuwa" and "Katunje Pakha" CFUGs in Kavre district	November 2007 – January 2008	Researcher, 2 research assistant, and 4 local facilitators
Questionnaire Survey	Women's attendance at General Assembly Women's influence in forest decisions Women's representation in executive committee Women's information and social networks Mediating factors for women's participation during men's outmigration	Personal interviews with 186 women using a questionnaire Review of the operational plan, constitution and minutes of executive committee meetings in each CFUG	"Majuwa Bhumithan" and "Dugursing Hup" CFUGs in Ramechhap district	February 2008 to April 2008	
In-depth interviews	Adaptation mechanisms of left-behind women due to men's outmigration Women's individual perception about their participation in community forest management.	Individual interviews with 30 women 10 key informant interviews Informal discussions with men		December 2008	Researcher and 1 research assistant
Focus group discussions	Women's collective achievements and challenges in community forest management Sharing validation of results obtained from questionnaire survey and in-depth interviews.	Five focus groups with 40 women		January 2009	Researcher, 1 research assistant, and 2 local facilitators

4.3 Start of fieldwork

4.3.1 Site selection

The process to select the research sites was cumbersome and time-consuming. Given the inadequate and scanty data on migration in Nepal, it was difficult to reliably identify districts with a high share of men who outmigrate. The Central Bureau of Statistics and NLSS have published data on international outmigrants and inmigrants at district level (CBS 2001; NLSS 2004). However, this data does not include seasonal or periodic outmigrants from a district. Birth registration is not yet comprehensively applied in Nepal, adding to the uncertainty attached to official statistical data.

Thus, a judgment-based protocol was developed to select suitable research sites. The criteria employed in the initial selection process focused primarily on those districts with a high rate of outmigrating men and with widespread community forest management. An initial interaction with key personnel from different organizations working in forest and migration issues in Kathamndu indicated potential research districts. Practical considerations, such as existing contacts, the willingness of stakeholders to participate, accessibility, and personal safety (given the Maoist insurgency) were also included in the protocol. The protocol allowed to identify two suitable districts: Kavre and Ramechhap.

In both districts, interviews with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level), and national as well as international non-government organizations allowed to short-list six CFUGs. All these six CFUG had a high rate of men outmigrating, a high level of women's participation, good access to markets, good forest condition and similar ethnic-composition. These CFUGs were then visited to verify the information. From the resulting list, two CFUGs were randomly selected from each district: "Chande Majuwa" and "Katunje Pakha" in Kavre district, and "Majuwa Bhumithan" (Majuwa) and "Dugursingh Hup" (Dugur) in Ramechhap district.

4.3.2 Selection and orientation of research assistants

The research assistants and local facilitators were recruited differently. Two research assistants, one woman with a degree in forestry, and one man with a degree in social science were recruited. Training them took four days and allowed to convey the research objectives, and explain the methods to collect data. Four local facilitators (1 man and 3 women) were recruited in each CFUG. Having women on the team allowed to build a friendly relationship and earn trust with the interviewed women. Having men on the team also helped in liaising with village men and gaining their support for the study.

4.3.3 Pre-testing the questionnaire

The questionnaire was designed in English and translated into Nepali, which is the most commonly used language in Nepal. The questionnaire was pre-tested with 20 interviewees in Katunje CFUG by both the researcher and the research assistants. The pre-test allowed to know the time it took to fill out the questionnaires, to check the flow and sequencing of questions. Notes were taken where the respondents found the questions obscure, repetitive or irritating. The questionnaire was then revised accordingly.

4.4 Data collection

Data were collected using both qualitative and quantitative methods in different phases between November 2007 and January 2009 (see Table 1). Face-to-face questionnaire survey, in-depth interviews and focus group discussions were used as the main methods to collect data. Additionally, interviews with key informants, informal discussions and participant observations were also conducted. Sampling at all levels of this study can be described as purposive (Neuman 2006). Interviewees are sampled with snowball sampling method (Neuman 2006).

The face-to-face questionnaire survey was administered to grasp factors that influence women's participation in forest management. Respondent's responses were solicited through multiple choice, numeric open-end and text open-end questions. The survey was used to test the knowledge derived from the literature review in a rigorous manner, and to assess causal relationships (Neuman 2006). While questionnaire surveys tend to be strong on reliability, the artificiality of the format puts a strain on validity (Dudley 2005).

In-depth interviews allowed a fuller understanding of the interviewee's perspective on the investigated topic with an opportunity to probe or ask follow-up questions (Kvale 1996; Berg 2009). The interview approach was personal and mostly conducted in interviewee's home.

While getting an idea of individual women's reality was possible using in-depth interviews, a collective understanding of challenges and achievements that these women faced in community forest management was also essential. Focus group discussions (Berg 2009:108) were conducted to obtain conscious, semiconscious, and unconscious perceptions and socio-cultural characteristics and processes among women. Thus, they elucidated both similarities and differences women have as a group.

Additionally, interviews with key informants such as the school teacher, forest rangers, local tea-shop owners, men and women executive committees were conducted. Informal discussions and participant observations in local settings also added to the validity of collected data.

Personal consent was obtained from each interviewee prior to their participation in survey, interviews and focus group discussions. Interviews and survey mostly took place in interviewee's homes, whereas focus group discussions were held at a convenient public place, which was suggested by the participants. All communication took place in Nepali language.

Data obtained from qualitative and quantitative methods were triangulated to counteract threats to validity (Kelle and Erzberger 2004; Berg 2009). These threats were identified each using several methods (see Fig. 2). Each interview was conducted by two research assistants so that they could compare notes and discuss their impressions afterwards. Each interview was also tape recorded. The results of the survey and interviews were then related to each other and further, cross-checked, if possible, with secondary information obtained from the minutes of executive committee meetings, constitutions and operational plans of the CFUG. Finally, the results were shared during focus group discussions to clarify the interpretation, and seek new or additional perspectives on an issue.

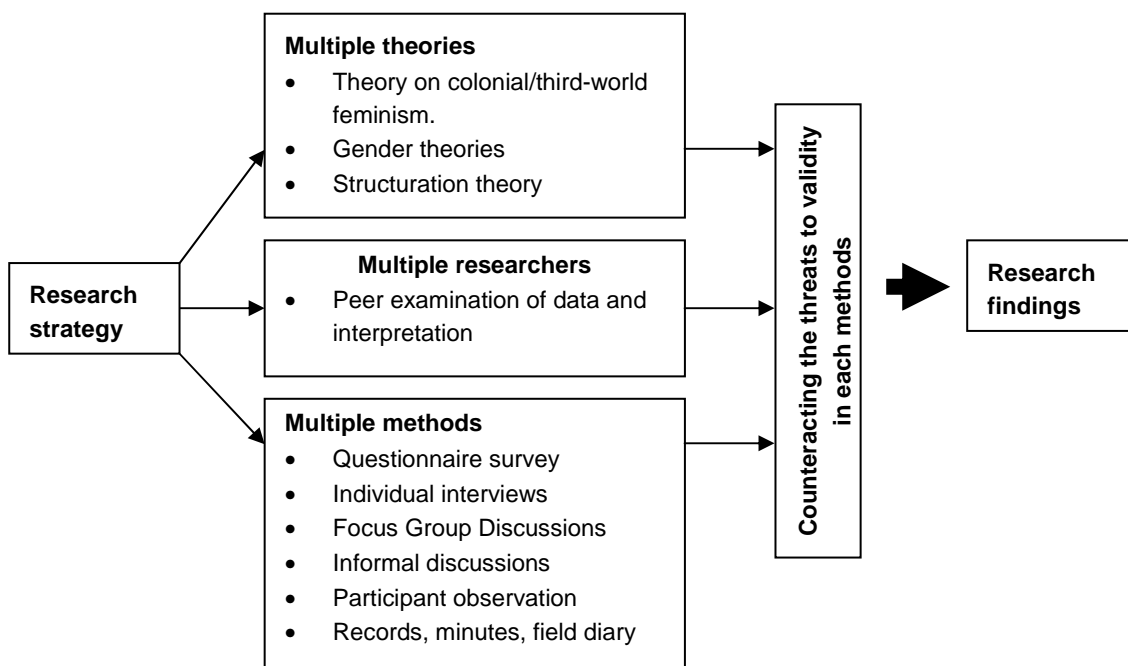


Figure 2: Data collection and triangulation techniques (Adapted from Berg 2009)

4.5 Data analysis

Quantitative data from survey was analyzed using statistical package SPSS 16.0 (Norušis 2008). Descriptive statistics such as percentage, mean, standard deviations, etc. were calculated to characterise the surveyed population. Chi-square and ordered logit regression were used to test the causal relationships between men's outmigration and women's participation in community forest management.

Qualitative data from in-depth interviews, focus group discussions, key informants, informal discussion, participant observation and field notes were transcribed, translated into English and analyzed using a content analysis approach (Berg 2009). Content analysis involves developing ideas about the information found in various categories; seeking emerging patterns based on the meanings that seem to be conveyed. The data was analysed to understand the women's view of their social world and the differences between the women's views. Generic labels or pseudonyms were used to identify communities and individuals, wherever required. Literature from similar studies was consulted to assess the reliability of results.

5 Results: Summary of the papers

This chapter is a summary of the four papers compiled in Part B of this dissertation. A brief description of each paper's purpose, main findings and implications allow an overview of the results based on the empirical material.

5.1 Paper I - Development and status of community forestry governance in Nepal

This paper has been published in proceeding of the conference: National Convention of Foresters: 'Forestry in a Climate of Change', held on November 5-9, 2008 in Reno-Tahoe, Nevada, USA.

This paper investigates the trajectory of community forestry programme and provides an analysis of its achievements and pitfalls. Community forestry programme is widely reckoned as a successful forest programme, having improved the forests' condition and user's livelihood (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Yet, challenges of empowering of women and disadvantaged groups remain, and successes are not uniform throughout the country (Agarwal 2001b). Both the challenges and achievements are part of a process, constantly influenced and mediated through both external (such as market, policy etc.) and internal (such as differential powers within a community) institutions. An understanding of these processes is essential to understand the complexity associated with managing community forests. Contributing to this understanding, this paper addressed the research question: what is the current status of community forest governance in Nepal?

Data were gathered from research articles, grey literature, and policy reports on participatory policies with an explicit focus on community forestry in Nepal. Based on a review of literature, this paper analyzes how external and internal institutions associated with community forest management have led to an adaptive process.

The findings show the interplay of global policies and markets with national policies on forest management in Nepal. National and international pressures were instrumental in shaping the forest management paradigm in Nepal. The early mode of tenured privatization saw a high degree of indigenous forest management with well-balanced goals of fulfilling the need for forest products and conserving forests. However, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people, transforming forests into an open-access common resource. As with Hardin's Tragedy of Commons (Hardin 1968), the deforestation and degradation of Nepalese forests led to regional flood disasters in the lower plains, giving rise to the Theory of Himalayan Environmental Degradation/Doom (Eckolm 1975). This occurred at a time when the international policy dialogue took a swing towards implementing participatory programmes for forest conservation (FAO 1978). As a result of the international donor

agencies' alarmist view, the Nepal government was accommodative to accept that without the users' participation, the government agencies were not able to sustainably manage the forest resources. Slowly policies became more favourable to community participation, and community forestry got momentum. Within two decades of predicted ecological doom, Nepal has established itself as a global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001).

The analysis indicates the ongoing process underlying the community forestry programme and highlights major setbacks, related to issues such as gender, caste and class. In particular, it draws its experience from the Nepal Swiss Community Forestry Project (NSCFP). The community forestry programme shows that Nepal has excellent evidence indicating a dramatic change in the status of forests: from severe deforestation to extensive regeneration within two decades. Still, the challenges are unfolding in nature. Moreover, challenges are at play all the times. The first generational challenge in community forestry was to convince and involve local people in community forest management, to gain their trust (Shrestha and Britt, 1998). While this has been fairly well accomplished, a set of other issues such as class, caste and gender discrimination within collective action became more apparent. These challenges have been met with success at some places, while at other places they remain grave. Learning from these encounters continues to enrich the policies and practice, through adapting existing legislation and developing novel rules and regulations.

Taking the standpoint of systemic learning and adaptive governance, this paper identifies the potential of community forestry to achieve collective change and sustainable forest management. Achievements till date have reflected the great potential of community forestry in achieving good forest governance, sustainable forest management and livelihood for the forest dependant communities of Nepal. Some of the crucial factors for the success of community forestry are the dynamic and adaptive nature of the programme, allowing a restructuring and reformulation of policies, and the devolution of authority to local communities. This mix of factors motivated local communities to participate in a transformed scenario and realise its potential benefits. Building on adaptive learning and transformative governance, community forestry reaffirms the fact that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

5.2 Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal

This paper has been published in: K. Aravossis, C.A. Brebbia, N. Gomez 2008 (eds.). *Environmental Economics and Investment Assessment II*. Southampton, WIT Press, pp. 295-304.

While the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women's participation and decision-making into such "participatory" processes has remained mostly rhetoric (Agarwal 2001; Buchy and Subba 2003). Indeed, evidence suggests that women's involvement in community forestry has mostly been "passive": women's household entitlement to membership in community forest user groups (Lachapelle et al. 2004; Upadhyay 2005). As such, women are often reported as simply position holders, without the possibility to influence decision-making (Lama and Buchy 2002).

Concomitantly, an increasing trend of men's outmigration is widely observed in the rural communities in Mid-hills of Nepal (CBS 2001; KC 2004). Existing studies indicate that men's outmigration can lead to changes in social relations, affecting women (Hadi 1999; Hadi 2001; Kaspar 2006). Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper presents an exploratory research that analyzes the effect of changing modes of women's participation. Specifically, this paper explores the research question: In what ways does men's outmigration affect women's participation in the management of the community forest?

Data were collected using focus group discussions, individual interviews and participant observation from two community forest user groups in Kavre district. The main issues discussed were the factors that allowed or prevented women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in community forest management. Furthermore, informal discussions with men were conducted to assess their perception of women's involvement in community forest management. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the community forest user groups.

The findings point out that women's active participation in community forestry are brought forth by a variety of factors, including men's outmigration. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. through being involved in a savings group – or participation in a women's rights programme, increases the women's confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men's support, women are willing to take on new challenges and seize the opportunities that can arise from men's outmigration. The extent to which left-behind women become actively engaged in community forest management seems to depend to a large part on whether they are in a nuclear family and whether they are unsatisfied with the information about

the community forest they get from their social networks. Moreover, women's active participation in community forest management led to increased forest protection, improved forest regeneration and well-regulated supply of forest products.

This paper adds to the current literature of participation by explaining how different factors can affect women's increasing participation in community forest management. While these findings are consistent with the earlier studies (Kabeer 2001; Agarwal 2001a,b; Buchy and Subba 2003; Agarwal 2009), one of the important contributions of this paper is to point out that socio-cultural contexts are not static. Rather they undergo continuous negotiations and adaptations under different influences. Men's outmigration is one of the factors potentially affecting women's participation in the public sphere of community forest management. This paper proposes the need of further research to identify the different circumstances that can arise due to men's outmigration in a social setting, and the resulting impact in women's participation in community forest management.

5.3 Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?

The paper has been submitted to the *Scandinavian Journal of Forest Research*.

The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (CBS 2001; NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies like Nepal where men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. Empirical evidence also suggests that the wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions (Giri et al. 2008). This paper thus addresses the following question: What factors affect the extent to which women participate in the management of the community forest during men's outmigration?

Data were collected using a questionnaire survey, in-depth interviews and focus group discussions with women from two CFUGs in Ramechhap district. The questionnaire survey was conducted with women and included questions on women's participation in silvicultural activities, attendance at assemblies, whether the women voiced their views

at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. At a later stage of data collection, to better understand how husband's outmigration affected their wives, in-depth interviews with left-behind women were conducted to elicit the personal experiences in coping with their husband's outmigration.

This paper statistically tests whether men's outmigration provides a 'window of opportunity' to increase women's participation in community forest management. The significance of different factors on women's participation during men's outmigration was tested using Chi-square tests as well as an ordered logit regression. Additional insights were derived from interviews and group discussions.

The findings indicate that men's outmigration can open a 'window of opportunity' for women to actively participate in community forest management. Left-behind women were significantly more likely to attend general assemblies and voice their opinions during the assemblies, compared to women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring of social roles and responsibilities both within households and within community institutions (Zacharia and Ranjan 2001; Karki and Bhattarai 2004). However, the extent to which outmigration represents an opportunity depends on family type (extended or nuclear) and composition (presence of adult men or older women).

Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions. These findings are consistent with the earlier studies (Hadi 2001; Kaspar 2006). Moreover, this study extends the previous research on migration for its investigation on women's changed roles in public sphere of community forestry.

The other contribution of this paper is its illustration of the interplay of changing social context (men's outmigration) with the internal and external institutions, and its impact on women's participation in community forest management. Due to the widespread outmigration of men, the internal institutions (such as men members of executive committee) can display a higher level of understanding that adjustments need to be made and thus, may be more willing to accept untraditional behaviour by left-behind women. This acceptance can be reinforced by the constant pressure provided by external institutions (such as Department of Forest, I/NGOs) to include women in community forest management. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling women to engage in the public sphere of community forest management. Also,

this paper confirms to the need of supportive policy measures to sustain the positive change with progressive redefinition of social structures and norms.

5.4 Paper IV - Nepali women using community forestry as a platform for social change

The paper has been submitted to the journal *Society & Natural Resources*.

The paper has been through the first review and the editor has indicated that it would be accepted for publication after revision. A revised version has been resubmitted.

Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups. These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active participation in the decision-making mechanisms within the community forest user group (Agarwal 2001a,b; Lama and Buchy 2002). While these studies focus on exclusionary structures to explain how and why women are marginalized in community forest management, this paper focus on social change processes, i.e. whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. This paper focuses on addressing following research question: How do women shape their social role in the public sphere so as to increase their participation in community forest management?

This paper draws on data gathered from two community forest user groups in Ramechhap district, using a mix of quantitative and qualitative methods. Face-to-face questionnaire survey was conducted to assess women's understanding of the operational plan or the roles and responsibilities of the users as well as to analyze the extent to which women were consulted and whether women attend meetings and speak up their concerns. The survey included a range of questions regarding the respondent's. Later, in-depth interviews were solicited to obtain the subjective views of the respondent's experiences, attitudes, achievements and challenges regarding her participation in community forestry. Furthermore, focus group discussions were held to elicit women's collective perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and the strategies women use to tackle these challenges. Data were analyzed using a content analysis approach (Berg 2009) within the theoretical construct of gender as a process (Nightingale 2006).

The findings indicate that women held spurious perceptions about the organization of community forestry and they were not fully aware of their rights in decision-making processes. They also perceived themselves unqualified to become the members of

executive committee. These findings are consistent with the previous studies (Agarwal 2001a,b; Lama and Buchy 2002).

However, this study departs from the previous studies in approaching women as agents of change instead of passive recipients of discriminating structures. It suggests different ways through which women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. Evidence of the processes of change can be found in incidents that might seem minor, but through the subtle microsocial acts, women contest the dominant social norms, experiment with alternative behaviours and increasingly assert their rights. Thus, this paper provides an enhanced understanding of women's agency, elucidated the social dynamics behind the formalities, and of the role of gender in community participation.

This paper also proposes that to gain such an understanding, there is a need to understand participation as a process related outcome and not a outcome-orientated initiative that can be captured in a snap-shot approach. Women's participation in public settings offered by community forest management is a new situation, where both men and women are unsure what to make of this new situation, what meaning it has and how it will be used by various parties. The situation is thus contested, being seen by some as an opportunity to experiment with a new situation while it is opposed by others. This ambivalence will involve a process of trial and error, of success and setbacks. Therefore, a nuanced approach to data allows to spot both the achievements and challenges for women's participation. This is crucial to capture the experimentation process, by identifying, supporting and/or rectifying approaches that could lead to transformative participation and equity in decision-making.

Additionally, this paper suggests the need of employing a careful mix of research methods to capture the complex dynamics of women's participation in community forestry. Whilst the results from the survey signalled to women's exclusion in community forestry, women's perceptions as voiced in the interviews and group discussions modify this interpretation towards women as agents of change. Likewise, this paper contributes to identifying and suggesting qualitative indicators (such as change in perceptions, changes in acceptance level by community etc.) to assess change in women's participation in community forest management, along with more-commonly used quantitative indicators.

6 Discussion and perspectives

6.1 Summary of the present dissertation

Women's inclusion and influence in participatory programmes like community forestry is considered indispensable to enhance both ecological and social sustainability in Nepal. Previous studies have identified a range of formal structures and processes that exclude women's participation (Agarwal 2001a; Buchy and Subba 2003). However, these studies do not provide a complete picture of the situation for two reasons.

Firstly, the social contexts where rural communities live tend to be portrayed as static in previous studies (Mohanty 1998; Gururani 2002b). However, rural communities particularly in Nepal, live in a state of flux, often characterized by unruly markets (Sugden 2009), instable politics (Taras 2006) and changing demography (CBS 2001; NIDS 2007). Previous studies have not been sufficiently attentive to the changing social context of rural communities and its associated impact on their participation in community forest management. In exploring the changing social context of rural communities in Nepal, the present dissertation focused on the effects of men's outmigration on women's participation in community forest management.

Secondly, when examining the structures/processes that affect women's participation in community forest management, previous research has particularly focused on women's position and roles within formal institutions. Thus, any dynamics of negotiation, contestation, and resistance beyond the formalized settings have been ignored. Using gender as a process (Nightingale 2006) involving reiterative interactions between agency and structure, this thesis investigated how women during men's outmigration can exercise their influences in community forest management, while being conditioned by structures. Thus, this thesis provides valuable insights on the conditions/processes that can lead to increasing women's participation in community forest.

Both exploratory and explanatory approach was used to understand the dynamics of men's outmigration on women's participation in community forest management. Data were collected and analyzed using different qualitative and quantitative methods. This mix of approaches and methods ensured obtaining valid and reliable results.

Based on the results from paper I-IV, the following conclusions are drawn:

- Men's outmigration can provide opportunities for women's participation in community forest management. However, the extent to which women take such opportunity is mediated by various factors.
- Women can exercise agency despite structures limiting their participation in community forest management.
- Participation is to be understood as an adaptive process of governance and learning, and not a hurried outcome limited to easily-measured outcomes.

These conclusions are used to broaden the discussion of women's participation in community forest management through potential implications. By emphasizing the multidimensionality of women's participation, this dissertation advocates the importance of applying various approaches and tools to conceptualizing and measuring participation. It also emphasizes the crucial role that formal and informal institutions play in women's participation and sketch out theoretical nuances and methods of examining such institutions.

6.2 Theoretical implications

The findings of this study provide a robust case indicating that a range of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. Combining different theories is important because many of the observed outcomes in this thesis could be un- or undervalued or stereotyped, if were analyzed from a single theory.

Feminist/eco-feminist theories argue for positioning and strengthening of 'women-agenda' into development programmes given to the richness of women's knowledge and close association to nature (Shiva 1989; Sargission 2001; Shantz 2002; Rogers and Shutten 2004). They thus often argue to incorporate women-agenda by proposing some change in structural measures such as representational quota etc. As the paper I states, the community forestry policies in Nepal have been continually adapted, if investigated in this direction. Women's knowledge and role in forest management have been well-identified by labelling women as the "primary users of forest". Furthermore the expected share of women in decision-making bodies has been raised. Other measures such as including both male and female's name as the representative head of households in the forest constitution have also been implemented.

Such representational measures can be thought as a starting point to address the persisting disproportionate representation and structural inequalities between men and women in community forestry institutions. Indeed, as the Feminist theories propound, this need of incorporating women's issues can provide an entry point to recognize and secure women's right to spaces of decision-making in community forest management. This push from feminist standpoint is important particularly for the present context of rural Nepal, where structural spaces between men and women are perceived to be different and are often imbued with "common-sense" power relations (paper IV). Indeed, such common-sense is taken for granted and thus the fundamental premises or ideology on which these seemingly common power relations are based are rarely questioned (Arora-Jonsson 2008b).

To provide a sense of alternatives, it is necessary to have spaces that give the possibility to view the relations in a different setting. Particularly in the case of forest management where forest decisions directly affect women (Tinker 1994; Agarwal 2009), providing women's entry into decision-making forums, can surely indicate an alternative

sphere that gives possibility to address their concerns and influence decision-making. Paper II documents that the effective forest management under women's leadership earned them respect and a sense of their own capability, which they lacked before. Paper IV also confirms that women, while experimenting with the alternative sphere of decision-making (provided by community forestry) can add to new knowledge and learning process that can also break the commonly assumed behaviours and mould new expectations. In a series of such subtle changes, women might then be able to increase their influence in the decisions governing the management of the community forest. Empirical studies at other parts of globe have also identified the effectiveness of such measures to build up a critical mass of women (Tinker 2004; Stockemer 2007; Kudva and Mishra 2008; Jones 2009).

Thus, before adopting a theoretical stance of feminist/eco-feminist theories, a cautious check about its assumptions and whether those assumptions fit to the research context is required. Despite women being the agenda of most (eco)-feminist studies, the very rationale that feminism started to counteract the dominant and discriminating ("androcentric") viewpoints should not be forgotten. Thus, the underlying principle of feminism is not men against women, but the differential power relations between men and women that led to discriminatory outcomes (Chafetz, 2006). In the pursuit of working against women's discrimination by men, feminist theories need to decode the social system, unravel the common-sense and analyze the power relations that lead to discrimination (Mohanty 1998; Gururani 2002b; Arora-Jonsson 2008b). Thus, it might be too simplistic and fallible to assume that all women are similar and that they are always discriminated to men without a proper analysis of the social context where discrimination takes place. Also, the extent to which a token of women representatives are expected to unanimously bring in all woman diversities, always work for the benefit of other women and never discriminate against women is questionable.

The findings of paper II, III and IV illustrate this complexity where women as a unified category face similar challenges in forest management and yet, the extent of challenges within women can vary due to several factors. In particular, paper III identifies household type, presence of in-laws as the major factors that can vary the extent of left-behind women's participation in community forest management. Previous studies have also indicated that women's knowledge and participation in forest management is contingent on different factors, such as class, caste, position in a family (Agrawal 1994; Jeffery et al. 1998; Shrestha 1999; Chhetri 2001; Gupte 2004).

There is thus a need to unravel the differential power relations that discriminate between men and women and within women, while they participate in community forest management. Gender theories can illustrate this phenomenon by analyzing the social (power) practices that turns male into men and female into women and discriminates between them (Burely, 2001). Indeed, it is important to decode both, the power performances (Butler 1990; Epstein 2006; Naples 2009) and the social context (Mohanty 1998; Gururani 2002) to better grasp the power relations between men and

women. Once gender is reconceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. In particular, paper III illustrates the changing social context due to a large share of men outmigrating and the resulting effect on women's participation in community forest management.

While gender theories highlight the importance of power relations between men and women in everyday practices, these do not fully embrace how human actions involve persisting (and changing) patterns of power relations. Thus, the theories relating agency and structure (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Callinicos 2004) were combined with gender theories to better understand the nature and use of power by women in community forest management.

Using an agency perspective alone may hinder the discrimination that women can face in community forest management. Likewise, relying on a structural perspective alone may mask the potential that women can exercise in influencing community forest decisions. The dual interaction between agency and structure helped to capture the complete dynamics associated with women's participation in community forest management. On one hand, paper II and III support the interplay of structures in regulating agency. Paper IV, on the other hand, confirms the multifaceted relationships through which women exercise their agency and modulate structures.

In short, to address women's participation in community forest management, this thesis points the need to understand and decode the underlying assumptions of each theory. A combination of theories used in this thesis illustrated the inter-linkages that were observed to exist between agency and structure, but only when gender is conceptualized as dynamic and not static. Thus, a logical suggestion is that analyzing women's participation in natural resource management could be enhanced if theory incorporated (and also valued) the full breadth and depth of mechanisms and processes associated with women's participation.

6.3 Methodological implications

There exists a widespread dichotomy between quantitative and qualitative methods in social research. This dichotomy is often reflected in terms of oppositions such as "quantity versus quality", "objective versus subjective", "hard versus soft science", "products versus process" (Brecher 1999; Neuman 2006; Berg 2009). However, there is a growing recognition that such sharp dichotomies between qualitative and quantitative methods is fuzzy (Ravallion 2005) and that research studies benefit from a judicious mix of both methods (Kanbur 2003; Kelle and Erzberger 2004).

Previous studies investigating women's participation in natural resource management are either qualitative (Agarwal 1992; Lama and Buchy 2001; Buchy and Subba 2003) or quantitative (Ahmed and Laarman 2000; Atmis 2007) in nature. Rather than seeking to rely on only one method to collect data, this thesis designed a mix of qualitative and

quantitative methods to identify and analyze the full spectrum of complexity associated with women's participation in community forest management. Different methods such as questionnaires survey, in-depth interviews, focus group discussions, participant observations etc. were used to collect data. The question of the relative strengths and weaknesses of questionnaire-based surveys and qualitative methods has been the focus of much interest by both researchers and practitioners (Kanbur 2003; Zeller et al. 2006; Kanbur and Shaffer 2007). Deploying a mix of methods helped to complement the lack inherent in each method and also to validate the results (White 2002; Kelle and Erzberger 2004).

The use of a survey allowed to identify the influence of multiple factors affecting women's participation. While identifying different factors that can affect women's participation in a given time and space is important, it does not fully account of the endogenous process of change taking place. Qualitative methods such as in-depth interviews, interviews, focus groups, participant observation complemented this lack by linking subjective understandings to statistical associations and thus revealing the unseen social dynamics.

In-depth interviews and participant observation were particularly helpful to examine and interpret social processes beyond formal institution and every day lives (Thompson and Barrett 1997). Examining women's everyday lives was important in our case because men's and women's spheres of work (Chhetri 2001), networks of information (Lama and Buchy 2002) and spheres of influence (Banjade and Ojha 2005) can be different in rural parts of Nepal. Use of this method helped to obtain subjective perceptions, negotiating mechanisms, the role of institutions and power relations with which individual women tend to participate in community forest management.

While subjective perceptions of individual women were elucidated using in-depth interviews, how women as a group influence the power dynamics at community forestry is important to understand what has been gained and what is yet to overcome regarding women's participation. Focus group discussions identified the similarities and differences in perceptions, feelings, attitudes and ideas that women have. Moreover, focus groups were also used as a platform to discuss the initial results obtained from quantitative and qualitative survey with the women participants. This interaction provided the women an opportunity to validate the results keeping the ethical standards that these women have the greatest likelihood of benefiting or being harmed by the participatory approaches like community forestry.

As this thesis demonstrates, a carefully designed mix of quantitative and qualitative methods can reveal unexplored dimensions and enrich the investigation. Thus, this thesis tries to draw attention away from the traditional "one-sided" measures of results and highlight the need for a more comprehensive analysis. The mix of methods employed in this thesis may provide a guiding frame to investigate multi-faceted research issues, not only limited to women's participation in community forest management.

6.4 Policy and Management implications

6.5 Policy and Management implications

There has been a fundamental shift over the last decade in approaches to forestry and conservation with the recognition for the active participation of local communities in all aspects of project design and implementation (Chakraborty 2001; Balooni and Inoue 2007). With an increasingly important role of providing ecological and economic benefits (Sinden and Griffith 2007; Fleming and Fleming 2009; Dhakal and Masuda 2009) and promising democratic rights (Pokharel 2005; Meynen and Doornbos 2004; Fleeger and Becker 2008), participatory approaches of natural resource management such as community forestry will continue to be an important approach of participatory management in Nepal. Moreover, the contribution of women, as a distinct social group in the forest sector, has been internationally recognized and the need for attention to gender equity in participatory programmes is stressed (Agarwal 2000; Ahmed and Laarman 2000; Cornwall 2003; Upadhyay 2005). Nevertheless, existing social inequities and discriminating power relations are reported to pose strong challenges to women's participation (Agarwal 2001a,b; Gupte 2004). This thesis offers valuable insights into these challenges and provide a dynamic approach for successful policy and practice of participatory programmes.

More specifically, this thesis examines the interaction of changing social context with existing institutions and also decode the conceptual foundations of women's participation within community forestry frameworks to suggest additional perspectives that might enhance women's participation.

6.5.1 Dynamic social context and changing power relations

Participatory approaches champion the role of community in bringing about decentralization, meaningful participation, and conservation (Pokharel 2004; Meynen and Doornbos 2004; McDermott 2009). As paper I describes, the poor conservation outcomes that followed decades of intrusive resource management strategies and planned development in Nepal have forced policy makers and scholars to reconsider the role of community in resource use and conservation. The community has been the core social planning unit in community forest management. The inherent conception of community as a small spatial unit, a homogeneous social structure, and as shared norms has been critiqued lately (Agrawal and Gibson 1999; Lama and Buchy 2002; Gupte 2004; Colfer 2004). These critiques also applied to an institutional approach (Agrawal and Gibson 1999) which they claim focuses on the multiple interests and actors within communities, on how these actors influence decision-making, and on the internal and external institutions that shape the decision-making process. A growing body of literature has documented different institutional processes and mechanisms that can affect the extent of participatory inclusion (Agarwal 2001b; Lama and Buchy 2002; Gupte 2004; Dahal and Capistrano 2006; Ojha et al. 2009) and benefit sharing (Maskey

et al. 2006; Dhakal and Masuda 2009). While these studies focus on how discriminatory practices are historically created and influenced by asymmetries of power and special interests, it is less obvious how they further an understanding of the way in which wider social processes such as migration interact with existing institutions and influence power relations. This study extends further by investigating the general settings in which institutions are embedded and concludes that they are dynamic and can change power relations within institutions.

Paper II and III, describe the changes in social context that affected women's power and participation in community forest management. As paper III elaborates, men's outmigration triggered a set of new needs for the left-behind women and the society that eventually helped to mould institutions and increase women's participation in community forest management. The large differences in participation between women with husbands at home and women with migrated husband draw attention to the broader contextual influences led forth by men's outmigration on women's participation and deliberations, beyond unique local and institutional community influences. These findings confirm that the general setting in which social actors are embedded are liable to change by wider processes (such as men's outmigration in this study) and that can possibly trigger situations leading to creative adaptation and change (Alvesson and Sköldberg 2000).

There is an urgent need within community forestry programme to identify these creative changes taking place in communities and provide institutional and legal support to complement positive and deter negative changes. This requires an understanding of the contextual influences within community forestry user groups, an identification of the major driving processes at a given time, and an analysis of the effect on power relations and social action. Not only is an awareness of context important in understanding the nature and magnitude of changing power relations, but it should also inform the (re-)design of participatory practices (Boyle 1998 in Cashmore et al. 2007). Contextual influences when combined with external, tangible but potential pressures can become conscious influences on peoples' participation and deliberation in participatory programmes (Robson and Kant 2009). Thus, supportive legal measures in community forestry programme should be provided to sustain the innovative practices.

Indeed, as Martello and Jasanoff (2004) observe, it is no coincidence that the implementation of the global environmental participatory agenda has remarkably rapidly led to a rediscovery of the local. Thus, having an understanding of the local contexts and their impacts on participatory policies is a development inherently required by the concept of participatory programmes, like community forestry and, hence, long overdue.

6.5.2 Participation as an adaptive governance process

Forest management in Nepal represents a continually evolving participatory programme where management and use rights to local groups have dramatically expanded, with a clear recognition that women's participation in community forest management is

essential and important (Lama and Buchy 2002; Upadhyay 2005). Paper I, in particular, illustrates the trajectory of forest management and indicates change in ecological, economic and social dimensions. Important in the change process is to recognize the type of expected change, the processes used to ascertain and measure the change, and the exerting (power) influences behind the change process, as the paper IV points out.

In pursuit of increasing women's participation in community forestry, it is important not to neglect the qualitative aspect of women's participation. In order to look beyond quantitative expansion (number of women only committee, number and position of women in executive committee, number of women attending general assembly etc.), focus on the qualitative aspect of women's participation is necessary. Adopting gender-friendly policies and programmes should go hand-in-hand with similar developments in communities as a whole. In the current situation, it seems that if women's participation in community forestry is to be sustained, it needs to reflect upon the mechanisms and contexts through which participation of some or all women is enhanced or hampered. As the paper IV argues, a participatory policy is thus needed to broaden the understanding of "change" resulting with women's participation. This necessarily requires a shift to understanding the underlying process, a more nuance approach through which change is measured, rather than limiting itself to statistical data. When participation is understood as a transformative process, it requires both: the requirement of a representative share and the changes in discriminatory values and culture.

To understand the changes in values and culture due to participation in community forest management, the perspectives and mechanisms using which women participate in forest management should be well understood. The majority of natural resource including forest governance studies point to the prevalence of structures in affecting women's participation (e.g., Lama and Buchy 2002; Gupte 2004) with few exceptions (Nightingale 2006; Arora-Jonsson 2008b) While these factors are important, the findings of this dissertation signal to the need of exploring women's agency to better capture the perception changes and mechanisms associated with women's participation, rather than attempt to apply structural perspectives alone. It is important to know how and where internal change takes place, just as it is important to know how discrimination takes place. An agency perspective on women's participation can aptly signal to the recurring practices of negotiation, contestation, resistance, reproduction etc. that women tend to use. This implies that women participating in community forest management are to be understood as adaptive decision makers who are shaped by social structures and also creative beings that construct meanings and social structures. When approached in this manner, a better insight of the undergoing social process can be offered, which involves providing an actor-centred schematic that is dynamic but also situated within institutional and cultural contexts.

This perspective can also enhance the participation process by incorporating the dynamic web of power relationships beyond formal setting (such as executive

committee, general assembly, official meetings etc.). Social processes beyond formal institutions and practices may seem little to do with formal procedure of women's participation and thus, often neglected. Paradoxically, the formal institutional analysis often fails to grasp and respond to crafting different mechanisms that addresses tensions between formal and informal practices while seeking to promote women's participation. Paper IV documents women's underlying tensions and approaches in both formal and informal settings. In addition to women's entry and interactions in formal structures, this paper points the need to uncover the often hidden exchanges of interactions and logic and the extent to which such interactions and logic impact formal deliberations (Scott 1990, Wilshusen 2009), independent of whether they occur in the informal or the formal settings. Thus, this type of analytical perspective is helpful to locate how diverse social practices with different logics may be in play, producing largely invisible tensions that can have significant impacts on participatory policy and practice.

Thus, if policy makers and researchers want to empower women through their participation in community forestry and other participatory programmes, they must determine what women at communities perceive as relevant factors (supporting and constraining factors for participation) for change and how do women approach to these factors. Women may have their own reasons for social actions and researchers as well as practitioners involved in participatory programmes need to learn the reasons women have. Indeed, identifying these answers can help to better understand the power play, the processes through which power positions gets shifted, deconstructed and also reproduced in community forest management. People create society, society creates people, who in turn create society, is a continuous process (Newman 2006:97). Important in this process is to identify reproducing patterns of discrimination and to deter them using different legal measures.

Given the multiplicity of institutions and plurality of mechanisms associated with women's participation, a single uniform strategy, almost certainly cannot increase women's participation. When participation is understood as a reflexive and adaptive governance process, the associated dynamics of agency and structure in both formal and everyday practices can be captured. The positive change can be used to strengthen the learning process while resistances can be tackled using innovative strategies. Women's participation in community forest management, thus, has to be a socially just change process that is both reflexive and adaptive to the changing social context and is transformative against discriminatory power relations. The chances of women's participation in community forest management will be far greater if policy framing and implementation takes these considerations into account.

6.6 Perspectives for future research

This study used case study approach and employed a mix of methods to obtain results. This research provides comprehensive, empirical insight into the effects of men's

outmigration and women's participation. However, the results must be interpreted within the context of certain methodological limitations: the empirical data are derived from one case study in one institutional context (Nepal) and relate to the participation of women in one type of programme (community forestry) at a certain relational context (Mid-hills, high rate of men outmigrating, forest-dependent communities). These outcomes are thus dependent on the institutional, legal, and socio-political context which needs to be taken into account when inferring comparable conclusions.

The present study offers several important research directions for further studies. Men's outmigration is an increasingly dominant activity in many developing countries including Nepal. Because this study examined the effects of men's outmigration on women's participation while controlling ethnic composition, economic status and forest dependency, further study can investigate the influence of these variables on the effects of men's outmigration. Likewise, the process through which men's outmigration can lead to a process of social transformation to empower women through an active engagement with community forestry need to be investigated. While this study was limited to understand the effects of men's outmigration in women's participation in forestry, further empirical study using the framework of the study can be used to analyze women's participation in agriculture, health, climate change etc.

In addition, using the methodological framework of the present study, more research on understanding how women's agency interacts amidst limiting structure in other participatory programmes can be of interest. Likewise, research to develop extensive qualitative indicators to measure the extent of women's participation in participatory programmes is also required. Moreover, further research need to decode the assumption of women as a 'unified mass' in participatory programmes and analyze the intersections of discrimination that can vary across different types of women (such as class, caste, education etc.).

7 References

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PART B: PAPERS

Paper I

Development and status of community forestry governance in Nepal

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Development and status of community forestry governance in Nepal

Abstract

Nepal has increasingly gained world-wide recognition in participatory forest management, primarily through “community forestry” programme. This paper sketches trajectory of forest management policies and practices in Nepal and analyzes achievements and pitfalls associated with community forestry. The focus is on analyzing the relations amidst good forest governance, sustainable livelihoods and forest conservation. Our analysis indicates that community forestry programme has been successful to meet the twined goals of forest conservation and socioeconomic transformation through power devolution, participation and good governance. Encouraged with such achievements, Nepal has envisioned attaining the national goals of poverty alleviation and the global goals of Sustainable Development by strengthening good forest governance, sustainable forest management, and livelihood improvement. Though, there are adequate challenges, mostly socio-economically, community forestry has been a ‘Learning platform’ that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

Keywords: forest management, good governance, livelihood, community forest user groups, Nepal

Introduction

Nepal is a landlocked Himalayan country situated between India and China. Nepalese Himalaya has ten out of the world's 14 peaks over 8,000m, 127 peaks over 7,000m and other 1,311 smaller peaks over 6,000m (Pandey 1995). Geographically, mountains, which are the least productive area, cover 35.2%, whereas mid hill occupies 41.7% and the most productive flat land of Terai, which has an elevation less than 300m, occupies 23.1% (MFSC 2002). Based on land use classification, Nepal constitutes 29% of forest, 10.6% of scrubland and degraded forest, 12% of grassland, 21% of farmland, and the rest 7% of uncultivated lands (LRMP 1986). Deforestation was major challenge before the 1990s. It has been reported that between 1978/79 and 1990/91 forest cover decreased at an average annual rate of 1.7% (1.3% in the Terai and 2.3% in the Mid-hills) and scrublands decreased at an annual rate of 0.5% (DFRS 1998).

Similarly, land use practices are more intensive than its potentiality as per soil capability classification. For example, only 4.1% is suitable for grazing whereas at least 22.8 % is being utilized for grazing (LRMP 1986). Nepal has abundant fresh water river systems,

with the flow of approximately 200 billion cubic meters per second, which have potentiality of generating 45,000MW hydroelectricity. It is endowed with plethora of biodiversity because of its unique location in the transition of Eastern and Western Himalayas; and between Palaeartic and the Indo-Malayan bio-geographical realms. The country, which occupies only 0.03% of the World's terrestrial mass, exhibits the following share of global biodiversity: 5.1% bryophytes (Mizutani et al 1995; Furuki and Higuchi 1995); 3.4% pteridophytes (Iwatsuki 1988); 5.1% gymnosperms, 2.7% angiosperms (Koba et al. 1994, Akiyama et al. 19982); 2.6% butterflies (Smith 1994); 1% fishes (Shrestha 2001); 1% amphibians (Shah 1995); 1.6% reptiles (Shah 1995); 9.3% birds (Grimmet et al. 2000); and 4.5% mammals (Suwal and Verheugt 1995). Diversity of forest is also very high due to climatic and altitudinal variations. Stainton (1972) classified Nepal's forest into 35 different types. Among them, ten major forest types with some common species are presented in below (Table1).

Table 1: Diverse forest types and common forest species in Nepal

SN	Type of Forest	Altitudinal Range	Common Species
1	Tropical forest	below 1,000m	<i>Shorea robusta</i> ; <i>Acacia catechu</i> , <i>Dalbergia sissoo</i> , <i>Michelia champaca</i> <i>Bombax ceiba</i> <i>Terminalia/Anogeiss</i>
2	Subtropical broad-leaved forest	1,000-2,000m	<i>Schima wallichii/Castanopsis indica</i> , <i>Cedrela/Albizia</i> , <i>Alnus nepalensis</i>
3	Subtropical pine forest	1,000-2,200m	<i>Pinus roxburghii</i> (South aspect in Central and Western Nepal)
4	Lower temperate broad-leaved forest	2,000-2,700m in the west and 1,700-2,400m in the east.	<i>Alnus nitida</i> , <i>Castanopsis tribuloides/C. hystrix</i> , <i>Lithocarpus pachyphylla</i> , <i>Quercus leucotrichophora/Q. lanuginosa</i> forests and <i>Q. Floribunda</i> , <i>Q. lamellose</i> , <i>Lithocarpus pachyphylla</i>
5	Lower temperate mixed broad-leaved forest	1,700-2,200m	Species of Lauraceae family.
6	Upper temperate broad-leaved forest	2,200-3,000m	<i>Quercus semecarpifolia</i>
7	Upper temperate mixed broad-leaved forest	2,500-3,500m	<i>Acer spp</i> , <i>Rhododendron spp</i> , <i>Aesculus spp</i> , <i>Juglans spp</i>
8	Temperate coniferous forest	2,000-3,000m	<i>Pinus wallichiana</i> , <i>Cedrus deodara</i> , <i>Cupressus torulosa</i> , <i>Tsuga dumosa</i> and <i>Abies pindrow</i> , <i>Picea smithiana</i> , <i>Juniperus indica</i>
9	Sub-alpine forest	3,000-4,100m	<i>Abies spectabilis</i> , <i>Betula utilis</i> , and <i>Rhododendron Species</i>
10	Alpine scrub	above 4,100m	<i>Juniperus recurva</i> , <i>J. indica</i> , <i>J. communis</i> , <i>Rhododendron anthopogon</i> , <i>R. lepidotum</i> , <i>Ephedra gerardiana</i> , <i>Hippophae tibetana</i> , <i>Caragana versicolor</i> , <i>Lonicera pinosa</i> , <i>Rosa sericea</i> and <i>Sophora moocroftiana</i> ,

History of Forest management and evolution of community forestry

In Nepal, forest policy has been developed and practiced primarily in response to the negative consequences of preceding policies (Pokharel et al. 2005). Therefore, there are different stages with varying modes of the forest ownership and management schemes. Hobley and Malla (1996) have classified Nepal's forest management history into three important periods, namely privatization (1768-1951); nationalization (1951-1978) and populism (1978 onward).

Privatization (1768-1951)

Prior to 1950s, forest was managed in traditional indigenous ways. Historically, the Nepalese feudal states used forest primarily for securing revenue and bolstering its military strength (Guthman 1997). From the sixteenth century to the nineteenth century, the state encouraged hill forest to convert into agricultural land to increase land tax, and protected Terai forest for the military protection of the country against expanding British India Company (Blaikie et al. 1980; Mahat et al. 1986; Blaikie and Brookfield 1987; Ives and Messerli 1989). After 1846, forests were handed over to local elites in various forms such as birta, talukdar, kipta, guthi, and jagir (salary) for serving the government. The forests were in control of those elites and were then inherited within the family. In 1907, an official document (lalmohr) provided guideline for such system (Hobley and Malla 1996).

In lalmohr, according to Adhikari (1990), people were required to ask elite (talukdar) had they required timber, and talukdar was required to ask people had he required timber. Local people had free access to the forest for limited commercial value of fuelwood, fodders, and medicinal herbs (Hobley and Malla 1996); but they used to get timber by doing labor or other forms of gifts and services to those elites. Forest watchers were hired and paid in kind by villagers for the protection of forest from unruly activities. Forest as an integrated constituent of the farming system (farm, forestry and livestock), people were managing the forest since a long ago (Arnold and Campbell 1986; Gilmour and Fisher 1991; Messerschmidt 1993). As Swallow and Bromley (1992) stated suitable informal rules practiced through generation yields "governance without government", the forest condition was very good despite the absence of appropriate forest laws to manage national forests until 1951 (Mahat et al. 1986).

Nationalization (1951-1978)

During the 1950s, the global paradigm of development was based on Industrial development model with top down approach. Renowned economists advocated that the benefits of the industrial development trickle down to local people and country could achieve economic prosperity (Gilmer and Fisher 1991). Influenced with it, Nepal realized that the forest is important source of revenue which can be channelized for the industrial

revolution of the country. Moreover, forest based industry itself could contribute to the great extent for the economic development. But the large parcels of the forest were privately owned and were controlled by few local elites. According to Regmi (1978), at least one third of the total forest was under Birta (privately owned) and three quarters of the land belonged to Rana Family, the ruler of the country before democracy. So, through the Forest Nationalization Act (1957), Nepal nationalized all forest of the country (Gilmour and Fisher 1991).

Though the hidden intention of the nationalization was to resume the control over privately owned forest, local people interpreted the legislative action as “taking forest away from the people” (Fisher 1999). Irrespective of the purpose, it was not followed by effective mechanism of control and management. As the result of people perception and to preserve the property right of ownership, forest holders began to convert forest into agriculture. Thus, the nationalization led to massive deforestation primarily for converting the forest land to other land uses so that the criteria of being national forest are escaped (Schulte and Sah 2000). The Department of Forest neither was able to manage the forest effectively nor was able to control the deforestation, despite of having strong legal backing.

Considering this phenomenon as the result of insufficient legal support, forest officials were given more authority for protecting the forest through Forest Act of 1961 and the Forest Protection (Special Arrangement) Act of 1967. Though the forest was nationalized and officials were made highly powerful, forest deforestation continued and management endeavours from government were unable to control (Wallace 1981). Eventually, forest nationalization converted the limited access people controlled forest to open access common property resources (Hobley 1985; Ostrom 1990; Messerschmidt 1993). According to Agrawal and Ostrom (1990) ignorance of existing local forest management system and absence of effective management and monitoring system of the government led the widespread deforestation.

The fate of common property resource is predicted by two authors contradictory to each other. In “An Inquiry into the Nature and Causes of the Wealth of Nations”, Smith (1776) popularized the idea of invisible hand which states when rational individual act beyond self interest with regard of others, the output of common resources maximizes. Though the notion is amazing, to what extent it is pragmatic is questionable (Ellerbrock et al. 2008). On the other hand, according to Hardin’s Tragedy of Commons (Hardin 1968), when the resource has unlimited open access, each rational individual is irresistibly tempted to maximize his gain as the benefit remains fully with him and negative effect of the decision is only a fraction as that equally affects to other individuals. Thus, each individual rush for the maximum benefits that ultimately ruins the common resource (Hardin 1968). Common resource gives a feeling that if I do not use the last unit, someone else will do. As of Costanza (1991), the activities are individually rational but collectively undesirable. In addition to inherent complexity of common resources: excludability and subtractability (Feeny et al. 1990); the situation of ‘everybody’s

responsibility is nobody's responsibility', very usual in common property resources, emerges and resource retrogression exacerbates (Lomborg 2001).

Out of these two contrasting ideas, forest in Nepal suffered through the Hardin's Tragedy of Commons. Sanera and Shaw (1996) argued that the cause of Tragedy of Commons is due to the lack of ownership and property rights. After nationalization, increased demand of the forest product due to rapid population growth, massive deforestation and conversion to agricultural land through terracing in the steep Mid-hills resulted high soil erosion, landslide in the Mid-hills and floods, siltation in the lower plains (Guthman 1997). Adoption of animal dung as a response of dwindling fuelwood supply contributed decreased productivity in the farm, which required more farm land to meet the food supply consequently pushing for more deforestation (Ives and Messerli 1989). Such massive deforestation in the Himalayas was considered to be the root cause of the severe flood in the Ganges and its regional impact on agriculture in early 1970s (Myers 1986). Between 1964 and 1985 Nepal lost about 570,000 hectares of forest (HMG/N 1988).

Linking widespread deforestation and rapid population growth as the predominant cause of downstream siltation and flooding in the Ganges, Eckholm (1975) propounded the "Theory of Himalayan Environmental Degradation." After the theory, the environmental crisis of Nepalese Himalaya received international solicitation (Guthman 1997) The Munich conference on "The Development of Mountain Environment" concentrated on the deterioration of Nepalese Himalayas. Sandra Nichols in 1982 with the financial support of World Bank produced a movie: *The Fragile Mountain* (Ives 1987). This also played a vital role to draw the global attention on the associated problems of forest deterioration. The situation was highlighted by the World Bank's prediction that all the accessible forests would disappear in the Mid-hills by 1993 and in the Terai by 2003 unless immediate movement to counteract the deforestation rate was commenced (World Bank 1984). As such, this idea of ecological doom regarding Nepalese forest resource base served as a benchmark to influence and evaluate the impact of forest policies afterward.

The influence of external agent, especially the World Bank, is crucial through its financial leverage to large sectoral funding (Rowchowdhury 1994). The World Bank pressurized the government to take some immediate steps to counteract the situation. Consequently, in the ninth national forestry conference of Department of Forest in 1975, the deteriorating condition of the hill forest was rigorously discussed. The proceeding of the conference laid foundation for the national forest plan of 1976 which recognized the inability of government to protect the forest without the involvement of people (Hobley 1996). This plan took the major shift of the government policy to manage the forest. Through the national forestry plan of 1976, people's participation was recognized as a crucial aspect to counteract the challenges and was reflected in forest policies of 1978. In 1978, Nepal introduced a policy to hand over forest for the protection and management to local political administrative bodies in the form of Panchayat Forest and

Panchayat Protected Forest (Fisher 1999). In the sectoral policy of forestry, Sixth five year plan of 1981 also emphasized community involvement for the protection, management and utilization of forest. Decentralization Act (1981) further empowered local political bodies to manage the local resources including forest.

Populism (1978 onward)

Globally, concept of Community Forestry emerged and became popular partly due to the failure of industrial development model to address socio-economic development and partly, due to the increasing deforestation and degradation (Gilmour and Fisher 1991). The concept, came in vogue after Food and Agricultural Organization published a report on 'Forestry for Local Community Development' (FAO 1978), and was further consolidated by the theme of 1978 Eighth World Forestry Congress, "Forestry for People", held in Jakarta, Indonesia (Gilmour and Fisher 1991). Under these global scenarios, in the Ninth Forestry Conference held in 1978, government officials, project staffs and donor agencies evaluated the progress and shortcomings of Panchayat Forest and Panchayat Protected Forest and decided user group model of forest management. As an outcome of this workshop, Master plan for Forestry Sector (MPFS) was developed.

A Master Plan for Forestry Sector (HMG/N 1998) prepared for 21 years states: the major policy of forestry sector is to encourage community participation by giving the full responsibility of forest management. It also allocated the 47% of total budget of the Ministry of Forest for community forest and emphasized on the reorientation of foresters for the new role of facilitation, from the traditional policing to encouraging participation of local communities in forest management. The Community forestry programme, the largest component of the MPFS was explicitly designated to meet the fundamental requirement; fodder, timber and fuelwood, of people. Guided by MPFS, along with the establishment of multi-party democracy in 1990, Nepal promulgated Forest Act, 1993 (HMG 1993) and Forest Regulation, 1995 (HMG 1995).

Through the series of restructuring and reformulating policies, Forest Act 1993 and Regulation 1995, being supported by Master Plan for Forestry Sector (MPFS), legally commenced a provision that a group of people forming the community forest user group (CFUG) can get part of the national forest as community forest to manage, protect and utilize after approving the operational plan with District Forest Office. Those legislations recognized CFUG as an independent local institution for managing community forests on an equitable and sustainable basis. These legal flexibilities have made community forestry as one of the most successful programmes of Nepal (Bhattacharya and Basnyat 2003).

After having strong legal backing, community forestry got the momentum and is said to bring numerous significant effects both, in forest and socioeconomic status of people. As a result, target of community forestry programme transformed to poverty reduction and Millennium Development Goals attainment. The third national workshop on

community forestry held in 1998 projected the aim of community forestry programme beyond mere fulfilling the basic needs to achieving national goal of poverty reduction and stated four pillars –social justice, equity, gender balance and good governance to achieve the aforementioned goal. Out of eight Millennium Development Goals (MDGs) eradicate extreme poverty has received the utmost attention, and 115 nations have committed at the United Nation (2000) at reducing the level of global poverty by half until 2015. The Tenth Five year Plan has also aimed at poverty reduction (HMG/N 2002). Forestry Sector Coordination Committee has identified and stressed to focus on the second-generation issues of community forestry such as livelihood promotion, good governance and sustainable forest management to mainstream and add relevancy to the programme at the present context.

Status of community forestry

Nepal couldn't make any progress in the most of the sectors even after democracy due to instability and inability of the government and high corruption (World Bank 2001); but the community forestry programme has remained an exception. During the two decades, community forest management policies and procedures have dramatically been shifted parallel to the changing objective of forest management from fulfilment of subsistence needs to achievement of sustainable economic transformation (Giri 2005). It has been seen that given relative security of the tenure of the forest management, local communities manage the resources expecting better condition in future.

Currently, at national level, 1,640,239 households (35% of total population) are managing the 1,187,000 hectares forest (25% of total forest land) of Nepal. Until 13 Nov. 2005, total of 14,201 CFUGs (600 women only user groups) have been formed covering an area of 1184,821 hectares (average being 83.43 hectares /CFUG and 0.73 hectares /household) with the involvement of 1,633,408 (avg. 115/CFUG) households (DoF 2005). In 2002, the annual income of the Department of Forest was Nepalese Rupees (NRs.) 550 million and total budget 680 million, but the Community Forestry which is only 25% of total forest, earned about 740 million (more than US\$ 10 million) which is higher than the annual budget of the Department of Forest and is almost 42% of the annual budget of the Ministry of Forest and Soil Conservation (Kanel and Niraula 2004). This implies high efficiency of community based forest management. Inspired with the successful examples of community forestry, the fourth national workshop on community forestry in 2004 stressed its role to achieve the Millennium Development Goals through good forest governance, sustainable forest management and livelihood.

At present, hundred percent of benefits that come out of community forestry directly goes to community forest user groups and contributes in multiple aspects of the local development. The following diagram (see Fig. 1) illustrates the pattern of fund expenditure of community forestry in the national level (Kanel and Niraula 2004). As seen below, the highest priority has been in the community development activities

(36%) which include road, school, irrigation, community buildings, drinking water supply, and physical infrastructures and so on. The second most prioritized aspect is forest development activities (28%). Forest act and regulation have the mandatory provision of 25% total fund to be spent in forest management but communities are spending higher than the obligatory level which implies that local communities are much more responsible to forest development than they are thought to be. Even though, the amount spent in pro poor programmes is very low, there has been good start to address poverty reduction target of the country through forest management.

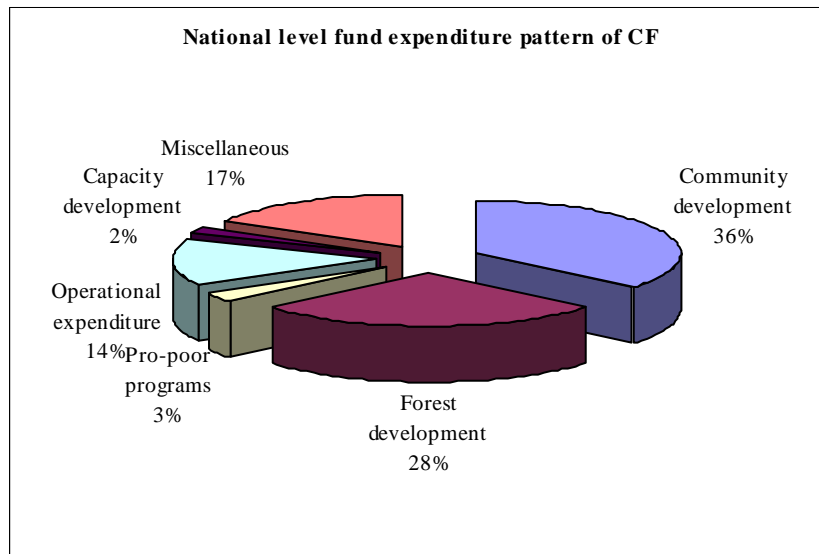


Figure 1: Fund expenditure pattern of Community Forestry in Nepal

(Source: (Kanel and Niraula 2004)

Some of these activities are directly related to Millennium Development Goals. For example, in eastern Nepal, forest user groups have been able to invest US\$327,000 generated by the sustainable use of forests over ten years in formal school education, informal literacy programmes for women and the poor and scholarship for poor students (Mayers 2007). This is an example of Community Forestry contributing to one of the Millennium Development Goals (MDG): achieve universal primary education, promote gender equality and empower women, the second and the third goals of MDG (Mayers 2007).

Several impact studies of community forestry across the country have concluded that community forestry has brought significant favourable alteration in the socio-economic status of the community (Schereier et al. 1994; Virgo and Subba 1994). Some community forests have contributed in road, school, irrigation canal, health post etc which has caused several direct and indirect positive impacts upon the livelihoods. Furthermore, community forestry has brought supportive influences on agriculture production, income and employment generation, biodiversity conservation, social unity and literacy in society. So, community forestry has brought a change of great

socioeconomic significance in rural society (Branney and Yadav 1998; Malla 2000; Pokharel 2004; Pokharel et al. 2005).

However, there are plenty of cases that report the negative impact of community forestry programme upon the livelihoods of poor and forest dependent people (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003). For instance, Gentle (2000) stated that community forestry programme has widened the gap between the poor and the rich people involved in community forest management. Elite groups in the villages dominate decision-making and often neglect the interest of other people. Participation of poor and disadvantaged groups in community forestry is very low while the local elites (high social status, wealthy and educated) are influential in local decision-making processes of community forest user groups (Gilmour and Fisher 1991). Consequently, an unequal distribution of community forestry benefits in favour of local elite is common in many community forest user groups (Maharjan 1998; Brown et al. 2002). This variability in community forestry outcomes indicates an intricate relationship amidst community forest governance, forest resource status, and livelihood of people which is dealt below in detail.

Good forest governance

Forest governance is defined as the set of principles and rules of forest resources management under which power is exercised and practiced in all spheres from private to public and the relationship between the state and its citizens, civil society and the private sector (Pokharel and Niraula 2004). It can have different meaning at different context. But, for poor and marginalized people, good governance means an enabling environment with higher inclusion and reduced marginalization. That means greater opportunity for their involvement in public policy making, greater likelihood of being treated equally by the law, more space to associate and pursue interests, and a better chance of bureaucrats behaving responsibly towards them (Pokharel and Grosen 2000).

The prevalent hierarchy in Nepalese society among rich and poor, low caste and high caste, male and female is the greatest challenge for the smooth functioning of any development endeavours. Due to such hierarchy, there is the degree of social, political and economic exclusion resulting to poverty. Mostly, women and ethnic groups are left out of the mainstream of development as they lack voice, empowerment, representation and access to economic opportunities. Therefore, weak governance is the key determining factor to exacerbate the poverty (HMG/N 2003).

However, surprisingly, community forestry has exhibited better governance. A number of studies (Malla 2000; Dev et al. 2003; Pokharel 2004; Pokharel et al. 2005) have revealed that community forest user groups are increasingly being more responsible, accountable, transparent, compliant of rules, laws and decisions, decentralization and devolution of power and authority, defined roles and responsibilities, pursuant of participatory decision-making, gender sensitivity, equitable representation and user balance, bi-directional flow of information horizontally and vertically. These are the

indicators of good forest governance (RECOFTC 2001). As an example, in Dolakha, Ramechhap and Okhaldhunga districts of Nepal, where Nepal Swiss Community Forestry Project is supporting, the percentage of household membership, in community, of the total district population has increased from 18% in 1995 to 76% in 2004; women in community forest user group committees have increased from 21% in 1995 to 35% in 2004. Representation of women in key decision making positions such as chairperson and secretary has also increased.

Similarly, Dalit's representation in community forest user group committees has increased proportionally with district population from 3% in 1995 to 11% in 2004. Likewise, representation of ethnic minorities in community forest user group committees has also augmented (Pokharel et al. 2005). One of the positive impacts of the current forest policy is enhanced social and human capital of local people. In particular, inclusion and representation of marginalized communities such as poor women, socially excluded groups and people from remote areas in leadership positions of Community Forestry governance has occurred at local level. These people later have been able to competitively acquire leadership positions in local governments (Gronow et al. 2003).

Pokharel (2005) stated that community forest user group (CFUG) are functioning as a small nation (Box 1) delivering services analogous to 16 ministries like election of executive committees, budget allocation, and contribution in road, school etc. So, good governance of each community forest user group could facilitate achieving the national targets of the policies and strategies

Box: 1 CFUG as a small nation (Pokharel 2005)

1. Parliamentary system-	Election/selection of executive body
2. Ministry of Finance	Management of CFUG fund, loan flow to the users, present annual record of income & expenditure in the assembly
3. Ministry of Law and Justice	–Conflict resolution relating to access and control over resources forest boundary problem etc
4. Ministry of Supplies	Supply forest products goods & services to communities
5. Ministry of Cooperatives	CFUG networks and federation safeguarding user's rights
6. Ministry of Home	Patrolling and protection of forests against destructive factors
7. Ministry of Environment	Activities conducted relating soil conservation and watershed management
8. Ministry of Agriculture	Support to users in vegetable farming, livestock husbandry, fishery, bee keeping, construction of irrigation canal
9. Ministry of Physical Planning	Construction and maintenance of community building, drinking water, bridge etc
10. Ministry of Women and Social Welfare	Focus on situation of women, dalit, members from ethnic minorities and remote places
11. Ministry of Education	Support in scholarship, teacher's salary, school building and furniture etc
12. Ministry of Transport	Fund investment or labor contribution in constructing road/trails
13. Ministry of Communication and Information	Public hearing, public auditing, information flow both vertically & horizontally
14. Ministry of Tourism	Ecotourism by constructing picnic spot, temples, recreational spots
15. Ministry of Health	Investment in health post, medicine, awareness in sanitation.
16. Ministry of Forest	Forest management, sivicultural operations, harvesting with growing stock assessment

Nevertheless, the results are not smooth throughout the country (Varughese 1999; Chakraborty 2001; Schweik et al. 1997). There are plethora of studies those have reported negative consequences on poor people after community forestry. After the community forestry has been formed, degraded forest are closed off to enhance the forest regeneration, this act however affects the forest dependent poor people (Edmonds 2002; Springate-Baginski et al. 2001). Community forest user group committees and user group decision-making are dominated by elites (Dougill et al. 2001). Though the forest policies have been decentralized and devolved; the power is vested among the handful of influential elite people (Azhar 1993; Robbins 2000). Low caste people and women who are most dependent on the forest have marginal role in decision making process (Mehta and Kellert, 1998, King et al. 1990; Hausler 1993). Roles and power are distributed according to defacto power structure and political balance of the system (Giri 2006).

Despite the power devolution effort of government from central level to local indigenous people/institution level, the results are heterogeneous. Certain groups unfairly use their increased power for their personal interests and agenda and women and minorities who are traditionally powerless are hardly empowered (Kellert et al. 2000). Such a situation has led to “participatory exclusions” (Agrawal 2001) within users in Community Forestry programme. Therefore, even though enhanced through liberal policies, community forest policies in practice have been acted upon as ‘centralized decentralization’ (Hobley 1996; Giri 2006) hampering the deliberative interactive mechanisms (Giri 2006) that community forestry policies can potentially offer if well-governed.

Sustainable Forest Management

Forest management activities of community forest user groups include plantation in the degraded forest, enrichment planting in the existing forest, their protection, management of already established forest, and control of fires, illicit tree felling, grazing. Consequently, the major achievements have been protection of the forest, expansion of greenery, rehabilitation of degraded land and restoration of biodiversity (Schreier et al. 1994; Virgo and Subba 1994; Collett 1996).

Community forestry in Nepal is especially successful in forest conservation (Springate-Baginski et al. 2001; Gautam et al. 2002, 2004; Yadav et al. 2003; Thoms 2008). The comparative studies of the forest before and after community forestry have shown the better establishment of plantation, regeneration, and faster growth of tree (Roberts and Gautam 2003). People are applying their indigenous knowledge to protect, and manage forest for fulfilling their basic needs which are the primary goals of community forestry (Gilmour and Fisher 1991). Some community forest user groups are involved in active forest management such as the establishment of experimental plots to investigate the effect of different silvicultural treatments and their application in larger scale. As a result, dramatic improvement of forest after the community forestry programme has been observed. For example, Branney and Yadav (1998) revealed the increased total number

of stems per unit area by 51%, basal area by 29%, increased active forest management from 3% to 19%. In a study of 135 square Km watershed area, Gautam et al. (2003) found decreased number of forest patches (395 in 1976, 323 in 1989, and 175 in 2000) and continuously increased area per patches implying the connectivity through forest regeneration.

But, most of the community forest user groups are protection oriented. They are only removing dead, dying, fallen trees, and leaf litter. Due to such passive management, using forest just for the subsistence needs, the productivity of the forest is not completely utilized (Sowerine 1994; Shrestha 2000; Larsen et al. 2000; Edmonds 2002; Malla et al. 2003; Pandit and Thapa 2004; Yadav et al. 2003). Hill (1999) estimated NRs. 560 per household per day as the loss of not conducting active management in community forestry. Moreover, community forest user groups are extracting fewer products than the capacity of forest. In a study from Dolakha district, Koirala (2006) found that the capacity of forest to supply the products has dramatically improved: 134% increase in timber, 405% increase in fuelwood, and 582% increase in fodder from 1999/2000 to 2003/2004 (see Fig. 2). Demand of the forest product is higher than the prescribed supply of those products. But, community forest user groups are taking less forest products than the forest can supply. It reinforces that community forest user groups are strictly protecting the forest with minimal extraction. Therefore, it has been essential and challenging to expedite active forest management- extracting the overstocked product and enhancing the productivity to the fullest potentiality of the forest.

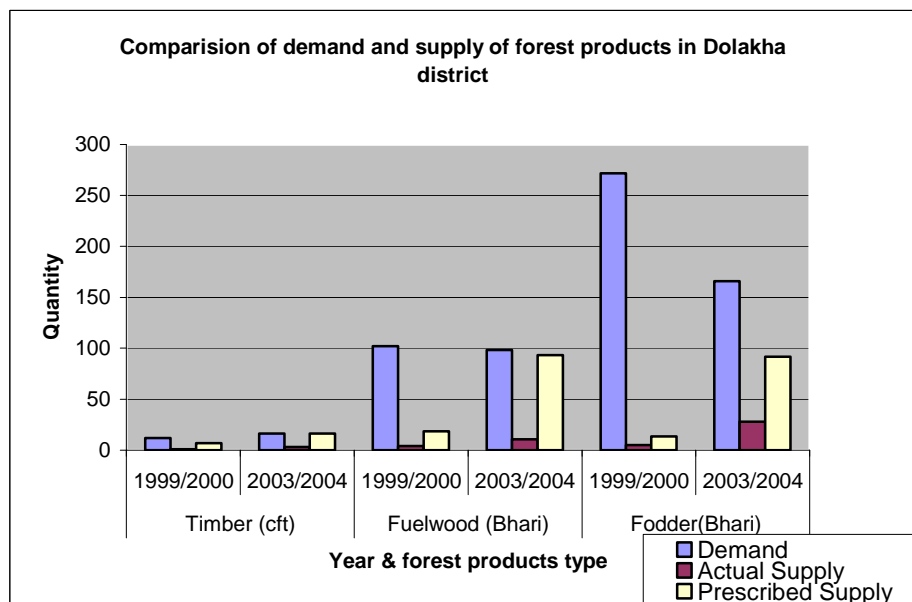


Figure 2. Comparison of demand and supply of forest products in Dolakha district (Koirala, 2006)

Sustainable Livelihood

According to the sustainable livelihood framework (see Fig. 3), a system or an individual can generate sustainable livelihood outcomes and strategies mobilizing the livelihood capitals (DFID 2002). Pokharel (2004) considered community forestry as the most successful programme in generation of livelihood capitals; natural capital (forest itself), human capital (acquiring expertise), financial capital (CFUG Fund), social capital (CFUG networks), physical capital (infrastructures like road, schools) (Dev et al. 2003). Forest also includes the capability benefits such as opportunities for social networking and skills development during user group formation, through income generation, home improvement, improved trails, in-village drinking water sources, support to schools (e.g. salary, building materials, etc.), construction of community buildings, community roads, and village electrification (Thoms 2008).

Assessing these capitals in individual household for well being ranking, the user groups identify poor people. For identified poor, community forest user groups develops the provision of income generation activities like goat keeping, bee keeping, mask-carving, bamboo furniture and other benefits like reduced or no price for the fuelwood. Some community forest user groups collaborate with other groups to develop forest based enterprises like resin tapping, paper making and juice making industries and they give priority to poor in employment opportunities. To improve the livelihood of forest dependent poor people, Nepal Swiss Community Forestry Project introduced the concept of “FREE LIFE approach” which includes Free forest product for poor, Funds for them, their Representation in leadership positions, Employment, scholarship for Education, access to community forest Land, Inclusion in decision making processes, equitable access to Forest products, and income generating Enterprises. Based on their resources, community forest user groups develop livelihood strategies that motivate people’s participation and contribute in poverty reduction.

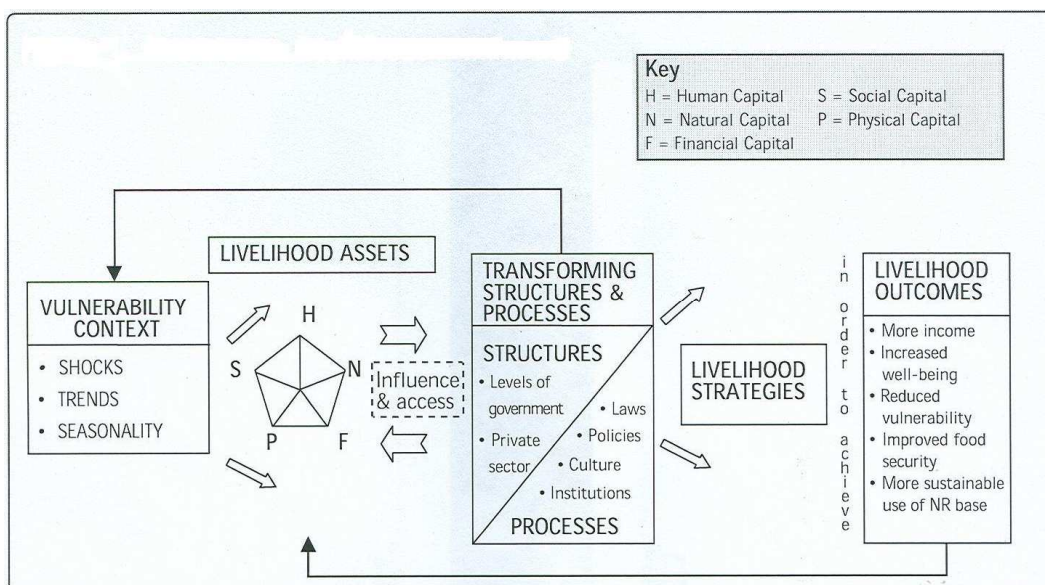


Figure 3 Sustainable livelihood framework (DFID, 2002)

For the livelihood of poor and disadvantaged, equity has been prime focus and increasingly being practiced. Equity is the special consideration for the marginalized section of the community (poor, women, dalits). It includes human rights and gender equity and the reversals, not for absolute but for levelling, of putting the last first and the first last to be considered in all contexts (Chambers 1997). This sort of substantial focus for them is against the widely existing socio-political system of hierarchical nature. Therefore, it is most challenging as it lacks the support of or even the consent of, the elite and affluent. Even the targeted population is not strictly adhering upon such proposition (Baral 1999).

Here is a good example of equitable benefits distribution, in other words, putting the last first, from three hill districts viz. Doalakra, Ramechhap and Okhaldhunga among 75 total districts in the country (Steenhof et al. 2007). Out of total 900 Community Forest User Groups (CFUGs) in that area: provision of equitable and positive discrimination for timber distribution is good in 41%, satisfactory in 46% and poor in 13%; provision of equitable and positive discrimination for fuelwood distribution is good in 52%, satisfactory in 38% and poor in 10%; provision of equitable and positive discrimination for non timber forest products good in 19%, satisfactory in 29%; and poor in 52%. Similarly, 8% of community forest user groups have allocated forest land, 7% has provided grant support and 24% has provided loan assistance to disadvantaged households to conduct various income generating activities. 13% of community forest user groups are providing scholarship to poor and disadvantaged students, 49% are delivering various humanitarian supports to the victims of natural disaster, 26% are helping in health and medicine and 17% are providing shelter support through goods and services to the poor. In all of these cases, there has been dramatic improvement compared to last three years (Steenhof 2007).

People have modified livelihood strategy to adapt communal rules of limited access to community forest by increasing the number of trees in the private land, keeping quality of livestock than large herds (Otsuka and Place 2000; Foster et al. 2000). But, there are some cases in which poorer households are negatively affected (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003) because of their high dependency on the forest and due to lack of other alternatives. Poor people, not having enough land depend on labouring, fuelwood collection and selling, charcoal production and blacksmithing. But, with controlled access, and limited use, those people are affected (Springate-Baginski et al. 2001).

Conclusion

Socio-economically poor but bio-physically rich Himalayan country, Nepal has passed through several stages in the history of forest management. National and international pressures are instrumental in shaping the forest management paradigm. The early

mode of tenured privatization had high degree of indigenous forest management with well balanced need fulfilment as well as forest conservation. But, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people transforming forest to open access common resource. As of Hardin's Tragedy of Commons, the deforestation and degradation of Nepalese forest and consequent regional flood disaster in lower plains laid the basis for Theory of Himalayan Environmental Degradation. In late 1970s, global recognition of role of forestry for local community development by Food and Agriculture Organization, and by Eighth World Forestry Congress in general and World Bank's alarmist view in particular pressurized the government to realize that without people participation government alone is incapable to manage the forest resources.

Slowly and steadily, legislative policies became more and more favourable to community participation and in early 1990s community forestry was fully legalized. After the legal recognition, community forestry in Nepal, especially in Mid-hills, has got momentum. Within two decades, it has been considered as the global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001). Comparing the predicted ecological doom in mountains of Nepal by The World Bank in late 1970s to the present recognition Nepal as a global leader in forest conservation through community forestry programme implies that Nepal has been an excellent evidence indicating a dramatic trajectory of forest change (from severe deforestation at one point to extensive regeneration at another point within two decades).

Now, the community forest has been established as a successful programme to improve the forest condition and livelihood of people (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Some of the crucial factors for the success of community forestry are dynamic and adaptive nature of the programme, restructuring and reformulation of policy and devolution of authority to local communities. Supportive policy framework has been the key factor that triggered motivation of local communities for their institutional arrangement to find themselves in transformed scenario and it got the greatest impetus after government legitimized the usufructuary rights of people (Hobley 1996).

The challenges such as fully empowerment of women, disadvantaged group and their role in leadership are highly prevalent and successes are not uniform throughout the country. Community forestry led devolution revolution (Thoms 2008) not only within the forestry but also in other sectors like watershed management and protected area management. Due to community forestry, society has been transformed as decentralized, participatory and equitable. However, as Nelson and Wright, (1995) stated, with devolution, there is a potential for either genuine local empowerment or abuse of new sources of power by local elites (Thoms 2008). Due to the former kind of output from devolution, community forestry is highly touted as the successful participatory model. But, at the same time the later types of output are also equally prevalent. Therefore, higher degrees of challenges such as centralized decentralization

(Hobley 1996; Giri 2006), participatory exclusion (Agrawal 2001), and not fully realization of equity, putting the last first (Chamber 1983) have emerged due to lack of perfectly good governance.

Though there are few discouraging social issues to be addressed, achievements in biophysical aspects such as restoration of degraded land, hill slope stabilization, biodiversity conservation, soil erosion control, reduced encroachment and sustainable harvesting of the forest product are very encouraging (Collett 1996). Despite of bottlenecks to evenly acquire successes throughout the country, achievements till date have reflected the great potentiality of community forestry. They have encouraged envisioning that achieving good forest governance, sustainable forest management and livelihood in each community forestry, Nepal can attain the national goal of poverty alleviation and global goal of sustainable development.

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Paper II

In the absence of their men: Women and forest management in the Mid-hills of Nepal

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In the absence of their men: Women and forest management in the Mid-hills of Nepal

Abstract

In Nepal, the management of community forests is based on the participation and decision making of forest users. The premise of its success is the involvement of the real users in forest conservation and management. The Nepal Forest Law identify women as key forest users and underlines the importance of their participation in community forest management. However, given the socio-cultural setting and the prevailing patriarchy, fostering women's active participation is challenging. Women are traditionally limited to private sphere and men tend to look after the responsibilities in the public sphere. However, the increasing trend of men's outmigration observed in the Mid-hills may offer a window of opportunity for women to become more involved in the public sphere and thus, be able to have a decisive influence in forest management issues. This paper investigates the factors that have increased the participation and decision-making level of women in two community forest user groups. Data were collected through focus group discussions, informal discussions and interviews with key informants. The results suggest that two key factors that allow women to take an active role in the management of community forests are: previous experiences with women's groups and the men's full support. Given the high prevalence of men's outmigration in the Mid-hills of Nepal, these results are relevant to formulate policies and strategies that foster women's empowerment.

Keywords: community forestry, community forest user group, men's outmigration, left-behind women, participation, decision-making, Kavre district, focus group discussion

Women's participation in community forestry

Promoting participation and decision-making of the less vocal and less powerful into participatory programmes has remained orthodoxy for development work. In the management of natural resources such as forests, the emergence and institutionalization of participatory programmes has taken various forms under umbrella terms such as social forestry, collaborative forest management or community forestry.

The concept of local people's involvement in natural resource use and management is not new. What might be new is the use of structured models of participation that are built around specific decentralized policy frameworks, to empower the local people. Community forestry is one of the highly acclaimed participatory programmes in Nepal that works along with the principles of decentralization (Winrock 2002). It aims to provide for the basic forest needs to the local people by bringing in their participation to

the programmes through the formation of community groups, widely known as “community forest user groups” (CFUG). CFUGs are cohorts of users of a certain forest at the local level (neighbourhood, ward or village) that enjoy use rights of the forest after the forest has been handed over from the state to the community. Each CFUG is governed by an executive committee that acts on the behalf of the general assembly of all members.

Participation is a dynamic process through which stakeholders of forest management institutions influence and share control over development initiatives, and the decisions and resources that affect them (Cornwall 2003). Participation in CFUG is defined in its narrowest sense in terms of nominal membership and in the broadest sense as a process in which the disadvantaged such as women have voice and influence in decision making (Agarwal 2001). According to Agarwal’s (2001) “ladder of participation”, participation is ‘passive’ if women may get some information about community forest management but lack any opportunity to make choices or influence the decisions, whereas an active participation is characterised as women’s increased voice and influence in different initiatives, whether solicited or not.

Whereas the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women’s participation and decision-making into such “participatory” processes has remained mostly a rhetoric (Buchy and Subba 2003; Gupte 2004). Indeed, evidence suggests that women’s involvement has mostly been “passive” in community forestry, represented in the form of women’s household entitlement to CFUG membership (Agarwal 2001; Cornwall 2003; Gupte 2004). As such, women are often simply position holders without the possibility to influence decision-making.

Empirical evidence indicates various factors that constrain women’s participation in community forestry. Some argue that the socio-cultural context of Nepalese society and the existing local power structure that provides more power to men can lead to “participatory exclusion” of women in community forestry (Agarwal 2001; Lama and Buchy 2002; Gupte 2004). The influence of the socio-cultural context may be maintained through resistance from village men on the basis of expected gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lachapelle et al. 2004; Upadhyay 2005), improper attention to women’s needs and aspirations regarding the timings of forest meetings, women’s lack of self-confidence (Lama and Buchy 2002; Lachapelle et al. 2004). As such, traditional gender roles assigning different responsibilities to women and men can also restrict women’s access to natural resources. As a result, women are frequently excluded from decision-making in community forest management.

While the effect of socio-cultural context of the community has been reported to affect women’s inclusion and decision-making in community forestry, social-cultural context are not static but undergo continuous negotiations, adaptations and changes under

different mediating factors. Men's outmigration has been widely reported as one such factor to bring forth negotiations and social transformation in the society by (re)structuring of traditional gender roles, increased access to resources and greater decision-making powers (Hadi 1999; Hadi 2001; Zachariah and Rajan 2001) and makes women more active in community development activities and farming (Thelma et al. 2005; Kaspar 2006).

Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper aims to explore and examine in what ways rural women's participation and decision-making in community forest management is affected by men's outmigration. It also offers indications of the impact of women's participation and decision-making in community forest management and the existing constraints and challenges they face.

Methodology

Site selection

The study was conducted in the Mid-hills, a mountain range that crosses Nepal from east to west, between the Himalayan range in the north and the Ganges River plain in the south. The altitude of the Mid-hills varies between 1.000 and 3.000 m. The Kavre district, some 70 km east of Kathmandu, was selected as livelihoods rely mostly on subsistence agriculture, livestock farming and forest resources (DDC 2007). Also, Kavre district borders Kathmandu and is well-connected to other major towns such as Dhulikhel and Banepa. Therefore, many men come to these cities either for study, work or business. In addition, Central Bureau of Statistics (CBS 2001) reports many of the men from Kavre districts go to other countries such as India, Malaysia and Saudi Arab for employment.

For this study, two CFUGs with a high rate of men's outmigration were selected. As official statistical data on migration is inadequate and often not available in Nepal, outmigration levels in Kavre district were assessed through discussions with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level) and NGOs. This provided a preliminary list of areas within Kavre with particularly high rates of men's outmigration. Six CFUGs were then visited to check the rate of men's outmigration and other characteristics of the CFUG through discussions with members of the Village Development Committee (a local administrative unit acting at village level), school teachers, as well as members of the CFUG and its executive committee. Finally, two CFUGs – Chande Majuwa and Katunje Pakha – were selected, as both had a high rate of men's outmigration and an active participation of women in the CFUG. Also, the two CFUGs are similar in other important aspects, such as access to markets, income from the CFUGs and exposure to tours and trainings.

Data collection and analysis

Primary data was collected between November 2007 and January 2008 through focus group discussions, individual interviews and participant observation.

Three focus group discussions were carried out with ten women in each CFUG. Each focus group discussion took about two hours. The main issues discussed were the factors that motivated women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in these CFUGs. The members of the focus groups were also asked to list the main influencing factors and to rank them.

Furthermore, informal discussions with male members of the CFUG were conducted to assess their perception of women's involvement in community forest management in both CFUGs. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the CFUGs.

Results and discussion

Factors influencing women's participation in the management of the community forest

Forest management in both CFUGs started about 25 years ago through a reforestation project (Nepal Australia Forestry Project), funded by Australia. Both community forests were formally handed over to the CFUG about 15 years ago. At that time, women's participation was predominantly passive. Male CFUG members held meetings and took decisions while women were barely – if at all – informed about the timing and/or outcome of these meetings. Women were unaware of the functioning of the CFUG and the potential benefits they could gain from the use of CFUG funds. However, in the last five years, women's awareness and stake in forest management has increased, so that it can now be described as active participation in decision-making.

As the main factors that allowed for this increased participation and active engagement in the decision-making within the CFUG, the women in the focus groups stated that collecting forest products is their responsibility, and that through their increased awareness of the importance of the CFUG and their confidence in their own abilities to manage the CFUG, they started to take a more active role in the management of their community forest (see Fig. 1).

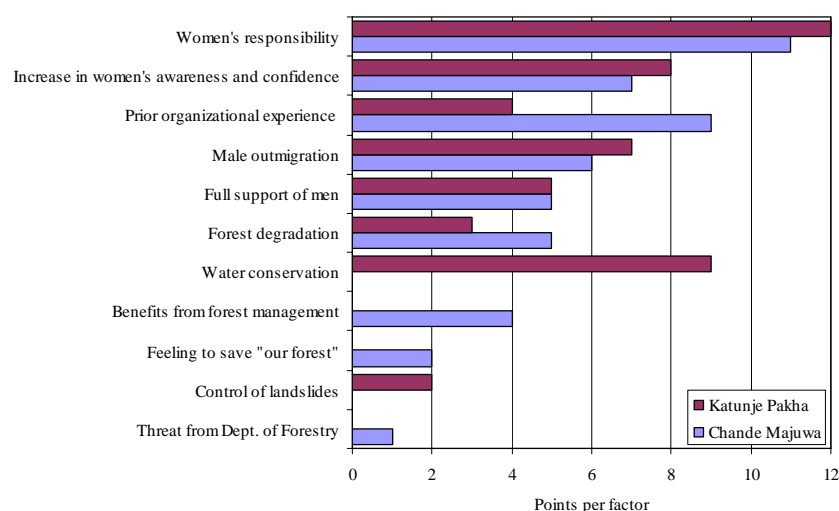


Figure 1: Weighed ranking of factors that motivated women to participate in community forest management

Note: Each of the 10 women participating in the focus group was given 5 points to distribute among the factors listed. Not all factors were listed in both CFUGs.

Forest and water are women's responsibility

Since in Nepal the collection of forest products such as fuelwood, fodder, grass and bedding material is mainly women's responsibility (Buchy and Subba 2003; Upadhyay 2005), women in both CFUGs started to face problems in meeting their household requirements as the state of the community forest degraded. Pressured to meet their household duties, women started to sneak into nearby community forests or national forest to collect forest products. However, these were farther away, so that the women had to spend more time to collect the forest products. Also, if the women were caught stealing the forest products from other CFUGs or national forest, they had to face penalties for misbehaviour and public shame. Securing a regular flow of forest products therefore became a core issue for the women, encouraging a more active participation in their own CFUG.

Women's increased awareness and confidence

The adult literacy programmes conducted by the Village Development Committee in both CFUGs provided a venue where women could sit together and learn in groups. This opportunity for information exchange made them more aware about the benefits they could potentially derive from forest management, such as planting medicinal plants in the forest to generate an income, or using CFUG funds generated from wood sales to address community problems.

Prior experience in organization

At the same time, women had the opportunity to get involved in some other organizations. In Chande Majuwa, women started a 'saving and credit scheme' where

each woman had to contribute 100 Nepalese Rupees (NRs.) per month. This allowed the women to set up a revolving fund which was used to solve the problems of member households in times of need. This experience provided women with the feeling that, if they organized themselves, they could solve their problems on their own, i.e. they did not always have to depend on their husbands or on another male household member. It strengthened the women's feeling of self-confidence and showed them the potential benefits they could derive from a successful organization. It also increased men's awareness and acceptance that women can successfully lead organizations. In the words of a woman in the focus group:

“Before, women in these villages were limited to performing assigned duties within their household only. But after being involved with the saving group, I also took on responsibilities of my household just like my husband. This has increased my self-esteem in my family as well as in society.”

Focus group discussion, Chande Majuwa CFUG

Women in Katunje Pakha participated in a programme for children and women, initiated by the Katunje Village Development Committee, called DOCAW, which provided training to raise women's awareness of their legal rights. Participation in this training has enhanced women's knowledge and awareness of their rights and thus their self-confidence:

“Before, I did not know anything. Participation in DOCAW made me aware about my own rights as a woman. It has also increased my self-confidence and capability to voice my concerns in public meetings.”

Focus group discussion, Katunje Pakha CFUG

The high rate of men's outmigration

The former Executive Committee of the Chande Majuwa CFUG was a men-only committee. When they made decisions about forest regulations, women tended not to receive any information about the timing of meetings or the decisions taken:

“Earlier we did not even hear about meetings. Men used to do that. They also did not use to share information. We didn't even know when the forest was opened and closed. We thought that it was only men who should held meetings and make decisions.”

Focus group discussion, Chande Majuwa CFUG

In Katunje Pakha, women were formally included in the initial Executive Committee, but men monopolized the decision-making, so that the women ended up not participating in the meetings.

When the rate of men's outmigration increased, this led to a lack of guidance within the CFUG. Indeed, in Chande Majuwa most of the male members of the Executive Committee left for cities in search of better employment. Thus, the men were no longer present and able to provide the time required to solve the various problems in the community forest. As a result illegal tree felling and forest encroachment was rampant in

both CFUGs. In Katunje Pakha, forest degradation led to issues of water scarcity and landslides, which were a core concern of the women.

Full support of village men

Given their inability to cope with the rampant forest degradation, combined with an increased confidence in women's ability, men in both CFUGs finally encouraged women to come to the fore and take part in decision-making on protection, management and use of the community forest. In both CFUGs, women perceived that male members fully supported their engagement. Men thought that if women participated in decision making, introducing women's perspective and concern, the forest would be better cared for. Indeed, since it is mostly the women who go to forests to collect forest products, they tend to be the most knowledgeable (Agarwal 2000; Upadhyay 2005) about the forest condition, areas of illegal felling and even the illegal encroachers. In Chade Majuwa – combined with the outmigration of the male members of the Executive Committee – this led to the formation of an all-women Executive Committee, in Katunje Pakha the women's share was increased to 50% of the committee members (up from 10% about four years ago).

Family composition and remittances as mediating factors

A left-behind woman has to cope with new responsibilities in the absence of her husband. Such new responsibilities can lead to stronger exposure to the public sphere, as is the case with decision-making in the executive committee or the general assembly of a CFUG. This particularly applies to women living in a nuclear family without any adult son. In the absence of their husbands, these women started to attend public meetings and forest assemblies. This public exposure provided them with a new opportunity for learning and information sharing. With it, their interest in the management of the CFUG increased. This public exposure also provided them with enhanced negotiation skills and allowed them to voice their concerns related to forest management, thereby influencing decision-making.

However, in extended families, the responsibilities of the man who had outmigrated were taken up by another male member of the family, e.g. a father-in-law or brother-in-law. Thus, in both CFUGs, left-behind women who lived in extended families participated less in forest meetings and assemblies, compared to those living in nuclear families. These results are congruent with other studies that analyzed gender relations within households (Zachariah and Rajan 2001; Kaspar 2006).

All the left-behind women reported that their husband used to be a major source of information about issues in the public sphere, e.g. the time and location of CFUG meetings and decisions taken in assemblies. When their husbands left, they lost this prime source of information. Whereas women in joint families relied mostly on other family members (male or female) to obtain such information, women in nuclear families relied mostly on neighbours and relatives. However, if the left-behind women in nuclear

families were not satisfied with the information provided, they had a strong incentive to attend the next meetings themselves.

Existing literature indicates that left-behind women tend to have a high workload (Thelma et al. 2001; Gurung and Gurung 2002). In the focus groups, although the left-behind women reported that their workload had increased, it did not hamper their participation in community forest management. Indeed, the women noted that they were happy to attend forest meetings and general assemblies as such meetings provided them new avenues for learning, thereby supporting their self-development.

Another issue is the remittances that outmigrated men send home and the control over this new resource. In extended families, it is mostly the male member of the family who handles the remittances. Still, women's opinion on their use is heard, even if they often end up being used to purchase land or to build a house. In nuclear families, usually the left-behind woman shares decision making with her outmigrated husband and thus, has more influence on the use of remittances. Some families, both extended and nuclear, have invested a part of the remittances to purchase alternative sources of energy, e.g. gobar gas. In these cases, the remittances helped to reduce the women's dependency on forest resources, especially fuelwood.

Impact of women's engagement in community forest management

Women in both CFUGs perceived that their involvement in community forest management yielded many benefits. The forest is now better protected, and the forest condition has also improved in terms of forest regeneration. Women now have easier access to forest products such as fuelwood, fodder, grass and bedding material from their community forest. Women's active involvement in the CFUG has helped to draw attention to women's concerns and identify possible solutions to address them. Indeed, now that women take part in the meetings, they can voice their ideas and influence the decisions. Women are also better able to ensure that the funds generated in the CFUG are used to address their livelihood issues. Moreover, participation in the CFUG has exposed the women to public meetings and speaking in public. Successfully meeting this challenge has increased women's self-esteem and confidence.

Constraints and challenges to women's engagement

Despite women's active engagement in community forest management, women still feel hindrances owing to their level of education and knowledge about legal and financial aspect of community forest management. Most of the women in both CFUGs are illiterate or just literate. Therefore, women tend to develop a feeling that "they might do something wrong" if they undertake legal or financial management of CFUGs:

"In one of the Executive Committee meetings, male members of the Committee were suggesting that this CFUG should be converted into a women's-only Committee. They also asked my opinion

about it. I felt a bit troubled wondering how women could deal with financial matters of forest management on their own. Most of us are illiterate. How could we handle the required skills to maintain the minutes and financial records?”

A member of the executive committee of the Katunje Pakha CFUG

Though women fully acknowledged men’s support behind their participation in forest management, they also felt unsettled by men’s desire to use the CFUG funds according to men’s own interests. In Katunje Pakha, male members of the Executive Committee put the CFUG fund in a bank, despite female members’ preferences to set up a revolving fund to provide “easy loans” to needy families in the community. During the focus group discussion, women also mentioned so other conflicts regarding the use of CFUG funds:

“Once, a few men came to us and requested a grant from the CFUG fund to construct a road nearby. All the women signed to allow cutting trees from the community forest to raise about Rs. 35,000 for constructing the road. Later we came to know that only a small amount was used for road construction, the rest was used up by the men themselves. We felt cheated, but this event has made us more careful.”

Focus group discussion, Chande Majuwa CFUG

Conclusion

Community forestry in Nepal is one of the highly acclaimed participatory programmes that aim to encourage the participation of local people, mainly women, in forest management. Yet, women’s inclusion and active participation in decision-making remains as a challenge, and is often mere lip-service. However, the men’s outmigration, which is becoming a widespread phenomenon in the Mid-hills, could potentially mediate social changes. This exploratory study was conducted to assess and analyze under which conditions men’s outmigration could lead to women’s increased participation in the management of community forests.

As the cases of Chande Majuwa CFUG and Katunje Pakha CFUG indicate, men’s outmigration can indeed open a ‘window of opportunity’ for women. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. of a savings group – or participation in a women’s rights programme, increases the women’s confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men’s support, women are willing to take on new challenges and seize the opportunities that can arise from men’s outmigration. The extent to which left-behind women actually become actively engaged in community forestry management seems to depend to a large part on them being in a nuclear family and feeling that the information about the community forest they get from their social networks is not satisfactory.

Given the increasing rate of men's outmigration in the Mid-hills of Nepal, there is a tremendous scope to encourage women's participation in community forestry. To realise this potential, further research is needed to identify the factors that foster women's participation and their interrelations.

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Paper III

Outmigrating men: A window of opportunity for women's participation in community forestry?

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The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Outmigrating men: A window of opportunity for women's participation in community forestry?

Abstract

Encouraging women to become active participants has been an important goal of the community forestry programme in Nepal. Achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women. In this study, we explore if there is a relationship between men's outmigration and women's participation in community forestry. Data were collected using a semi-structured survey, in-depth interviews and focus group discussions with women from two community forest user groups. Our analysis indicates that men's outmigration provides a 'window of opportunity' to increase women's participation, as the left-behind wives were more likely to attend the general assembly and voice their opinions during the general assemblies. However, the extent to which outmigration represents an opportunity depends on family type and composition. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions.

Keywords: decision-making, left-behind women, migration, community forest user groups, Mid-hills, Nepal

Introduction

In a globalized world characterised by regions differing in their economic dynamics, migration is widespread. Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies in which men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. The wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions.

One such institution is community forestry which plays a key role in securing forest resources for the household, such as fodder, firewood and timber. As there are few forests women can access freely, these resources mostly come from a forest managed by a local user group-commonly called as 'community forest user group' (CFUG). Although women are considered responsible to collect forest products, traditionally it is the men who represent the household during the general assembly and other meetings of the CFUG. During these meetings and in the general assembly, decisions pertaining to the management of the community forest are taken following a deliberative process. To maintain their membership, each member household must have at least one person present.

Although the community forestry programme has made substantial efforts to be gender inclusive, women have so far played only a subordinate role (Agarwal 2001; Buchy and Subba 2003). Women's active participation in decision-making has been hampered by a range of factors, such as women's traditional deference to men, their lack of experience with voicing their views in a public setting (Shrestha 1999; Chhetri 2001), their lower education level (Lise 2000; Lama and Buchy 2000) or their lack of access to employment (Ghimire-Bastakoti and Bastakoti 2006).

In this paper, we explore whether men's outmigration can open a 'window of opportunity' for women to engage actively in decision making within their CFUG. Indeed, if the man, usually the head of household, is not present, and given that each member household is required to attend the general assembly, necessity might push women into the public sphere. As previous studies indicate, the extent to which women will engage in the public sphere is likely to be affected by factors such as wealth, position within the family, family type (Shrestha 1999; Buchy and Subba 2003) and migration pattern (Hadi 2001).

Methods

Selection of the study area

Ramechhap district, some 220 km east of Kathmandu, in the Mid-hills of Nepal, was selected for this study as a high share of men migrate, and as it has a reputed history of forest restoration through the community forestry programme (NSCFP 2004). Key informants from District Forest Offices, District Development Committees, range posts, and NGOs were asked to name CFUGs with high rates of outmigration. From this preliminary list of CFUGs, those that had received support from the Nepal Swiss Community Forestry Project were selected. This allowed building on established relations of trust, which was important to secure access to the CFUGs, especially as data collection took place during a politically fragile period (end of the Maoist insurgency, see Karki and Bhattarai 2004). This short-list was further restricted to those CFUGs which were very similar regarding their ethnic composition, forest area per

household, forest condition, access to road and markets, and overall economic situation. From the resulting list of six potential CFUGs, two were randomly selected: Majuwa Bhumithan and Dugursingh Hup. Including two CFUGs allowed for a larger sample size and gave the opportunity to include a wider variation in strategies to cope with men outmigration.

Data collection

Data was collected in three steps between October 2007 and February 2009. In a first step, to assess whether there is a relationship between men's outmigration and women's involvement in the CFUG, a questionnaire-based survey was administered. The households were first divided into two cohorts- (a) households with married migrant men and (b) households with married men at home. All households from both cohorts from each of CFUGs were surveyed, if they were reachable, willing to participate in the study and if they had at least a married couple (thus, households of widows, widowers, or divorcees were not included since they do not allow to study the dynamics of gender roles). A total of 186 households were surveyed, with the wife of the household head or of the migrating man answering the questions. The survey included questions on the participation in silvicultural activities, attendance at general assemblies, whether the women voiced their views at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. In a second step, to better understand how husband's outmigration affected their wives, 30 left-behind women were purposively selected to cover a range of education levels, household types and family composition. These women were interviewed using a semi-structured interview format that focused on their personal experiences in coping with their husband's outmigration. The interviews took approximately two hours each. In a third step, five group discussions were held: two with women living in a nuclear family, two with women living in a joint family and one with a combination of both. During the group discussions, the 40 women were encouraged to discuss their personal experiences as well as how they perceived men's outmigration to affect the community as a whole. Each discussion took about four hours. Both the semi-structured interviews and the group discussions were tape-recorded after receiving permission from the women.

Data analysis

The quantitative data collected in the survey was analysed using SPSS. First some descriptive statistics were calculated to characterise the surveyed households. To analyse the factors affecting the women's participation in the CFUG, two proxy variables were selected: (1) attendance at the general assembly, (2) whether the woman voiced her opinion on upcoming forest management decisions during the general assembly or during earlier preparatory meetings. Both proxy variables were ranked on a 3-point scale, ranging from 'never' to 'sometimes' and 'often'.

Regarding the factors that might affect women's participation, we first analyze differences between left-behind women and women whose husband is at home, using Chi-square tests. Secondly, we focus on the variables that can explain differences within left-behind women. To assess the statistical significance of the variables, we use Chi-square tests as well as an ordered logit regression. Ordered logit regression was selected as the 3-category dependant proxy variables are neither continuous nor normally distributed (Norušis 2008).

The qualitative data from the interviews and the group discussions was examined using content analysis (Berg 2009). The focus was on identifying those causal relationships, as perceived by the women, which explain the result of the statistical analysis of the survey data.

Results

Characteristics of the CFUGs

In both CFUGs, the dominant ethnic groups (Tamang and Magar) do not have a caste hierarchy and there is little difference in wealth between CFUG members. All rely heavily on forest resources, and fuelwood is their only energy source for cooking. Due to the poverty prevalent in these communities, outmigration is a widespread livelihood strategy. Of the 186 surveyed households, 16.1% of the interviewees' husbands migrate between 6 and 12 months per year, mostly to larger towns within Nepal, to work as wage labourers in carpet weaving, brick kilning or as taxi drivers. Some 32.8% of interviewee's husbands migrate for more than 12 months at a time, mostly to India or the Gulf states. The household types were distributed nearly equally: 44.6% of surveyed households are joint households, i.e. in-laws or siblings share the same household, where as 55.4% of surveyed households are nuclear, i.e. composed only of the husband and wife, as well as their children. The majority of the surveyed women (61.8%) were illiterate. However, 25.8% had attended formal schools and 12.4% had attended adult literacy classes. The average age of the surveyed women is 33.2 years. Nearly half (44%) of left-behind women are engaged in self-employment, mostly selling vegetables or alcohol.

Differences between left-behind women and women whose husband is at home

Although the vast majority of women are involved in collecting forest products, only half of the surveyed women (50.7%) stated that they attend general assemblies at least occasionally. Left-behind women are not only more likely to attend general assemblies; they are also more likely to attend them regularly (Table 1). Only a third of all surveyed women (32.8%) stated that they voiced their opinions before or during general

assemblies. Here also, left-behind women are more likely to express their views (19.8%) compared to women whose husband are at home (5.3%), a difference that is statistically significant (Table 1). These findings indicate that there are significant differences between the two groups of women (Table 1). Left-behind women are significantly more likely to be present at the general assemblies, where decisions regarding the management of the community forest are discussed and taken. They are also significantly more likely to raise their concerns and influence forest management decisions.

Both the in-depth interviews and the focus group discussions with left-behind women have confirmed that their behaviour in relation to attendance at the general assemblies and to voicing their views regarding forest decisions has changed after their husbands outmigrated. Left-behind women had to take up the roles and responsibilities of their husbands, both at the household and in community institutions. Left-behind women had little choice, given the importance of attending the general assembly to continue the membership at the CFUG and thus, maintain access to forest products.

Table 1: Differences between left-behind women (n=91) and women whose husband is at home (n=95)

Variable description	Answer categories	Left-behind women (% per category)	Women with husband at home (% per category)	X ² test (p values)
Attendance at the general assembly	Often	45.1	17.9	0.001**
	Sometimes	11.0	27.4	
	Never	44.0	54.7	
Voicing their opinion	Often	19.8	5.3	0.010*
	Sometimes	17.6	23.2	
	Never	62.6	71.6	
Involvement in forest product collection	Often	78.0	66.3	0.205
	Sometimes	15.4	23.2	
	Never	6.6	10.5	
Dependent on fuelwood from CFUG	Very much	53.8	52.7	0.231
	Somewhat	27.5	36.3	
	A little	18.7	11.0	
Family type	Nuclear	38.5	71.6	0.001**
	Extended	61.5	28.4	
Education level	Illiterate	47.3	75.8	0.001**
	Literate	52.7	24.2	
Mother-in-law in the household	Yes	57.1	21.1	0.001**
	No	42.9	78.9	
Adult men in the household	Elderly	25.3	4.2	0.001**
	Young	7.7	73.7	
	Both	20.9	22.1	
	None	46.1	0.0	
Adult son in the household	Yes	9.9	25.3	0.005**
	No	90.1	74.7	

**Significant at 1% level *Significant at 5% level

Differences within left-behind women

The left-behind women are not a homogeneous group, however. Especially the household type has a significant influence on whether the women attend the general assembly and voice their opinions (Table 2). If the left-behind women live in a joint household, she is less likely to attend the general assembly than if she lives in a nuclear household (32.2% vs. 84.3%). As expressed during focus group discussions, in joint households, it is likely that some other family member, such as a father-in-law, a brother-in-law or an adult son, will take up the outmigrated husband's role and responsibilities. Indeed, the presence of adult men in the household is significantly associated with the left-behind's women attendance of the general assembly (Table 2). The type of adult man (such as father-in-law or son) present at home can again lead to variation. About 25% women with elderly adult men at home do attend the general assembly, compared to 83% of women with young adult men such as a son. However, not only do other men take over the roles of the outmigrated husband, they can also be taken over by senior women, such as the mother-in-law (Table 2).

If the left-behind woman lives in a nuclear household, she is very likely to take up the role of her migrating husband. Having an adult son does not influence her attendance at the general assembly (Table 2). During the focus group discussions, this was explained by the fact that adult sons tend to reside in a different town for educational purposes and thus, are not able to take over the roles and responsibilities of their father.

Surprisingly the migration pattern does not have a significant influence on left-behind women's attendance at general assemblies (Table 2). The in-depth interviews revealed that this is linked to husband's individual preferences. In some households, husbands encourage their wife to attend the general assembly even if he is back at home, as he does not feel sufficiently informed to represent their household at the general assembly. However, other husbands prefer to attend the general assembly themselves whenever they are at home.

Left-behind women who are self-employed are significantly more likely to express their opinions regarding forest decisions (Table 2). However, there is no significant relationship with the attendance at general assembly. The focus group discussions revealed that women who are self-employed have experience with being exposed to the public sphere and gained confidence in voicing their opinion. However, due to their work commitment, they are not always able to attend the general assemblies.

Whether the left-behind women are literate or not has no significant influence on them attending the general assembly or voicing their opinions. This indicates that although illiterate women might not be able to read the written documents of the CFUG, it does not influence their commitment to attending the general assembly and voicing their opinions.

Table 2: Variables influencing left-behind women's attendance at general assemblies and voicing their opinions at or before general assemblies (n=91)

Variables	Description of variables	Attendance at general assemblies		Voicing her opinion	
		χ^2	p-value	χ^2	p-value
Household type	nuclear / joint	44.267	0.000**	10.503	0.005**
Adult men in the household	yes / no	33.069	0.000**	10.633	0.005**
Type of adult men	elderly / son	14.639	0.001**	2.609	0.271
Presence of mother-in-law	yes / no	39.042	0.000**	6.611	0.037*
Adult son in nuclear family	yes / no	1.347	0.510	0.809	0.667
Migration pattern	6-12 months / > 12 month	1.162	0.559	3.810	0.149
Education level	Illiterate / literate	4.133	0.124	0.216	0.898
Self-employment	yes / no	4.648	0.098	10.364	0.006**

Degree of freedom: 2

**Significant at 1% level

*Significant at 5% level

Regression analysis

The three-ordered regression analysis allows to identify significant independent variables that influence left-behind women's attendance at general assemblies and voicing their opinions about forest decisions. The regression analysis also estimates the direction of such relationship based on the sign (+ or -) of regression coefficients. The log likelihood test also showed that the regression models fit the data and they have good explanatory power. Since the presence of an adult man or of a mother-in-law is tightly related to the household type, they are excluded from regression analysis. The presence of an adult son in a nuclear family is also eliminated, as we do not have a large-enough sample to be able to include it in an ordered regression.

Both household type and self-employment are significantly and positively related to left-behind women's attendance (Table 3) and expressing their opinions regarding upcoming forest decisions (Table 4). Education and migration pattern were not significantly related to left-behind women's attendance and influence in forest decisions.

Table 3: Ordered logistic regression predicting left-behind women's attendance at general assemblies

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	3.775	0.687	0.001**	3.597
Education level (1=illiterate)	-0.214	0.553	0.699	0.807
Self-employment (1=yes)	1.031	0.519	0.047*	2.803
Migration pattern (1= < 12 months)	0.342	0.534	0.522	1.407

LR χ^2 (4 d.f.) = 54.657, Prob > χ^2 = 0.001 Log pseudo likelihood = -102.506

**Significant at 1% level *Significant at 5% level

Table 4: Ordered logistic regression predicting left-behind women voicing their views of upcoming forest decisions

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	1.478	0.501	0.003**	4.384
Education level (1= Illiterate)	-0.574	0.498	0.249	0.563
Self-employment (1=yes)	1.263	0.469	0.007**	3.536
Migration pattern (1= < 12 months)	-0.612	0.524	0.243	0.542

χ^2 (4 d.f.)= 22.509, Prob > χ^2 = 0.001 Log pseudo likelihood = -84.557 **Significant at 1% level

The regression analysis also shows that, when holding other variables constant, the odds for a left-behind wife living in a nuclear family to attend general assemblies is 43 times higher than the odds of left-behind women living in a joint family (Tab. 3). The odds of a left-behind woman living in nuclear family voicing her opinion is four times higher than the odds of a woman living in a joint family (Tab. 4). The odds of women who are left-behind and self-employed to attend general assemblies are nearly three times higher than those who are not self-employed (Tab. 3).

Discussion

Women's participation in the management of a community forest is influenced by a number of individual and social factors (Lise 2000; Agarwal 2001; Lama and Buchy 2002; Adhikari et al. 2004). This study analysed the extent to which men's absence due to migration, can open a window of opportunity for women to become more involved in the decision-making of the CFUG.

The findings indicate that women whose husband outmigrate are significantly more likely to attend general assemblies than women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring social roles and responsibilities both within households and within community institutions (Zacharia and Rajan 2001; Karki and Bhattarai 2004).

However, the household type (extended or nuclear) and composition (presence of adult men or older women) are important factors modifying the impact of outmigration on the left-behind women. Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. Women living in nuclear families, especially when they did not have another adult in the household, were the most likely to become actively involved in the decision-making of the CFUG. Earlier studies (Hadi 2001; Kaspar 2006) also indicate the role of household type. Being self-employed also had a significant impact on the women voicing their opinions.

These results need to be understood in the context of the CFUGs studied: they are characterised by low income levels and high dependence on the CFUG especially for fuelwood. Retaining the membership of the CFUG by attending the general assemblies was thus a high priority for the women. As both CFUGs are characterised by a high share of men leaving the community to search for employment (over 50% outmigration rate), the community might display a higher level of understanding that adjustments need to be made and thus, might be more willing to accept untraditional behaviour by left-behind women. This acceptance might be reinforced by the pressure by the Department of Forest to include women in the management of the CFUG. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling left-behind women to engage in the public sphere.

This study does not allow assessing to which extent left-behind women's attendance at the general assembly is the beginning of a wider engagement of women in the CFUG or in the public sphere generally. Some studies on the effect of outmigration in Nepal have indicated that, after their return, men tend to reclaim their pre-migration roles and decision-making competencies (Miller 1990 in Kaspar 2006; Kaspar 2006). However, other studies indicate that outmigration can permanently alter traditional mores and culture, so that women can have more freedom and decision-making powers, even after their husband returned home (Hadi 2001).

Conclusion

The study shows that under certain conditions a high rate of outmigrating men in search of work can open a window of opportunity for women to participate actively in the management of community forests. Whereas women have traditionally participated in the silvicultural activities of the CFUG, their presence and active involvement in decision making is very recent. Given the aim of Nepal's forest policy, to institutionalize gender equity and promote democracy through the community forestry programme, supportive measures should be provided to sustain women's entrance in the public sphere. Such a policy support, can add to the progressive redefinition of social structures and norms, even after the husband returns home.

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Paper IV

Nepali women using community forestry as a platform of social change

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Nepali women using community forestry as a platform for social change

Abstract

Successful implementation of decentralized programmes such as community forestry depends on participation of local users. Although women have been recognized as the primary users of forests, they are widely reported as marginalized in decision-making processes. Previous studies mostly take a static view, focusing on exclusionary structures to explain how and why women are marginalized. A focus on social change processes would allow better understanding of whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. Based on survey, interviews and group discussions in two community forest user groups, we argue that women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. We point out the need to understand participation as an on-going and open-ended process of social change rather than as a predefined outcome.

Keywords: management of natural resources, gender, participation, perception, decision-making, Nepal

Introduction

Nepal initiated its community forestry programme in the late 1980s with the twin goal of conserving natural resources and providing local users with forest products. Community forestry is widely recognized as a promising approach to forest management and governance, especially regarding its ability to improve the condition of forests (Banjade and Ojha 2005; Gautam and Shivakoti 2005; Koirala et al. 2008; Thoms 2008). Currently Nepal has some 14,400 community forest user groups (CFUG) involving over 1.6 million households (DoF, 2007). By devolving management rights to local user groups, the programme also aims at contributing to social equity by securing resources for disadvantaged groups, such as the poor, low caste and women (Acharya 2002; Adhikary 2002). Indeed, in rural Nepal, forests are a key natural resource that provides leaf litter, firewood, fodder, grazing resources as well as timber. Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups.

These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active

participation in the decision-making mechanisms within the CFUG (Agarwal 2001a; Agarwal 2001b; Lama and Buchy 2002). This recognition was followed by policy initiatives to increase women's inclusion in the decision making bodies of the community forestry: the Ninth Five-year National Development Plan 1997-2002(NPC 1997) provides directives for the inclusion of women in the executive committee of the CFUG; the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) requires that for each household one man and one woman must be included in the list of members. Although these gender-friendly policies have done much to increase the formal inclusion of women in the decision making bodies, studies point out that women still tend to be excluded from active participation in decision-making (Buchy and Subba 2003; Gupte 2004).

The questions thus remain whether exclusion and inequality are maintained over time, and what processes can induce change. Understanding processes of change is crucial to identify approaches that could lead to equity in decision-making and transformative participation by women and other disadvantaged groups. Previous studies have mostly emphasized the need for different structures to induce change (Lama and Buchy 2002; Gupte 2004; Thoms 2008). These approaches tend to depict women as powerless victims, as passive receivers of development and thus as dependent on external interventions. Although we agree that structural change and external interventions are important leverage, they are not sufficient to induce social change. We want to draw attention to the women's agency, to their active engagement with the space offered by these structural changes. Building on Nightingale's (2006) understanding of gender as process, as being recreated and changed in daily interactions, we focus on how the women can use the CFUG as a platform to contest and reconstruct their roles and rights.

The paper starts with a brief overview of the theoretical background on understanding change through creative acts in daily social encounters, before presenting the results of a case study of two CFUG. Based on a survey, interviews and group discussions, we present women's perceptions of decision making processes within the executive committee and the general assembly of their CFUG. We analyze how the women use current structures to widen their room to manoeuvre by contesting the traditional right of the men to be sole decision-makers. We show that although such acts might not always yield results that can be easily measured by development planners or evaluation analysts; they are part of a process of adjustment and adaptation over time. Our aim is thus to understand processes of social change, rather than limiting ourselves to measure participation outcomes.

Understanding women's agency in community forestry

Many studies assessing the participation of women in community forestry, specifically their ability to influence decisions, take an institutionalist approach. They assume that outcomes of collective action are determined by the institution's design principles (Ostrom 1990; Agrawal, 2001) and that the effects are largely governed by underlying social norms, which tend to be seen as stable (Lama and Buchy 2002; Gupte 2004; Ojha et al. 2009). They thus draw attention to various barriers to women's participation and identify a range of strategies that can induce change by external action and novel structures. These include revising legal provisions, setting adequate meeting times, organizing neighbourhood meetings, creating women-only groups, improving literacy, providing self-confidence training, and reducing women's work burden (Armitage and Hyma 1997; Agarwal 2000; Lama and Buchy 2002).

The identified barriers are certainly real and the strategies valid to increase women's participation in Community Forestry. However, these studies have paid little attention to endogenous processes of change, especially social processes involving continuous negotiation and change (Axelby 2007; Shortall 2008). Theories of social constructivism point out that interaction are based on the way agents socially construct their everyday realities (Steins and Edwards 1999). Processes within the CFUG are thus constructed (and reconstructed) by the people themselves. An explicit focus on the women's constructions, on their perception of processes within the CFUG can thus shed light on the complexities involved in the evolution of collective action and help us understand its dynamic nature. Indeed, communities and individuals are dynamic in that they are driven by an evolving set of beliefs and values. As experiences are processed, beliefs about the way the world functions, and the appropriate standards of human behavior for dealing with it, are continually adjusted (Fussel 1996). As social reality evolves, new feasibilities open up, allowing breaking through previous limitations.

We build on Dalton (2004) in viewing individual agency, and the creative acts of these agents, as a microsocial source of structural and social change. Dalton (2004) defines creativity as the necessary adaptation of habitual practices to specific contexts. He points out that all acts are creative in that they require the innovative adjustment to particular circumstances that can neither be neither precisely foreseen nor completely routinized. Creative acts by women in the CFUG thus continually introduce novel possibilities, establishing new rights, and new behavioural norms.

Obviously, how a novel possibility plays out depends on the social judgments and responses it provokes. Other groups or individuals may use innovative acts for their own interests, may decide to adopt or to modify creative acts for other circumstances, may condemn them as subversive or dangerous for social stability, or may engage in a variety of contradictory responses that reveal ambivalence linked to conflicting social

pressures or positions (Dalton, 2004). We thus understand women as creative agents, who continually produce practical innovations in interaction with a social and physical environment that systematically limits, judges, and incorporates those creative acts into the ongoing stream of social life.

Social life tends to be structured by gendered social norms that exclude women from participating in decision making processes in a CFUG. In Nepal, women were traditionally confined to the private sphere, whereas men dominated the public arena and were in charge of taking decisions that affected the community. However, as with other social norms, gender division of labor, gender rights, and gender duties are prone to change, not least through the creative acts of women. Gender roles and rights within a CFUG are not pre-determined or immutable; they are constantly being renegotiated, contested, and reaffirmed through social interaction. Once gender is re-conceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. The women may use the public platform offered by the CFUG to redefine what is considered an acceptable behavior for women. They might use it to acquire skills that they so far had no opportunity to experiment with and thereby enlarge their room for manoeuvre. In a series of subtle changes, women might thus be able to increase their influence in the decisions governing the management of the community forest.

Study sites and data collection

This paper draws on data from two CFUG located in Ramechhap district, some 220 km east of Nepal's capital city, Kathmandu. Ramechhap was selected as it has a long history of forest restoration through community forestry programmes (NSCFP 2004). Based on expert assessment, six CFUG with a high level of women participation, good access to markets, good forest condition and similar ethnic composition were short-listed. The dominant ethnic groups are the Tamang and the Magar, who do not have a caste-based hierarchy. As field work took place during the civil war (Sharma 2006) the CFUG were selected in cooperation with the Nepal-Swiss Community Forestry Project, to gain good cooperation and environment of trust while collecting data. From the list of six potential CFUG, two – Majuwa Bhumithan (Majuwa) and Dugursingh Hup (Dugur) – were randomly selected as case studies. Selecting two sites ensured adequate sample size and some variation in the practices of the executive committee and general assembly. Both CFUG were established around 1998 and the forests are predominantly pine plantations (NSCFP 2004).

Data were collected during two periods: from October 2007 to April 2008 and from December 2008 to January 2009. First, preliminary interviews were held with members of the executive committee (men and women) in both CFUG (4 in Majuwa, 5 in Dugur). Secondly, a snow-balled sample of households to survey was drawn from the membership lists. The semi-structured interviews in the survey were conducted face-to-

face with 120 women in Majuwa (57% of the households), and 66 in Dugur (67% of the households). The interviews were conducted with the wife of the household head. The survey included questions regarding the respondent's understanding of the operational plan, the rights and responsibilities of the users, and the household's involvement in community forest activities. She was also asked about her attendance at meetings, whether she speaks up to voice her opinions, and whether she was consulted before decisions were taken. Thirdly, in-depth interviews were held with 30 women. These provided insights in the women's experiences and their understanding of the processes within the CFUG. Finally, five group discussions were held, in which a total of 40 women participated. These women were purposively identified from the surveyed sample to include women of different age, education level and family structure. Topics covered in the group discussions included women's perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and how the women tackle these challenges. The in-depth interviews and group discussions were held by the first author in Nepali, transcribed, translated into English and analyzed using content analysis (Berg, 2009).

The women's perception of their CFUG

Perception of community forestry organization and of users' rights

All the interviewed women had a positive attitude towards their community forest user group, which is instrumental to overall performance of community based programmes (Matta and Alavalapati 2006; Allendorf et al. 2007). Since its establishment, they have access to forest products, which are protected since compliance to management rules is enforced. All women are actively engaged in silvicultural operations such as thinning or pruning, and regularly collect forest products.

Despite their involvement, few are aware of the documents which describe the formal organization of their CFUG (see Fig.1). Most of the respondents have never heard of the forest constitution. This document stipulates the rights and duties of the executive committee and of the CFUG members, as well as lists the names of members. Even fewer know about the Operational Plan, which includes the forest management plan, the harvesting regulations and the price of forest products. These are the two key documents of a CFUG. At the initial handing-over of the forest (i.e. when the boundaries of the forest were drawn, and its management (but not ownership) was handed over from the District Forest Office to the user group), they were written by the executive committee in consultation with a local NGO, and approved by the District Forest Office.

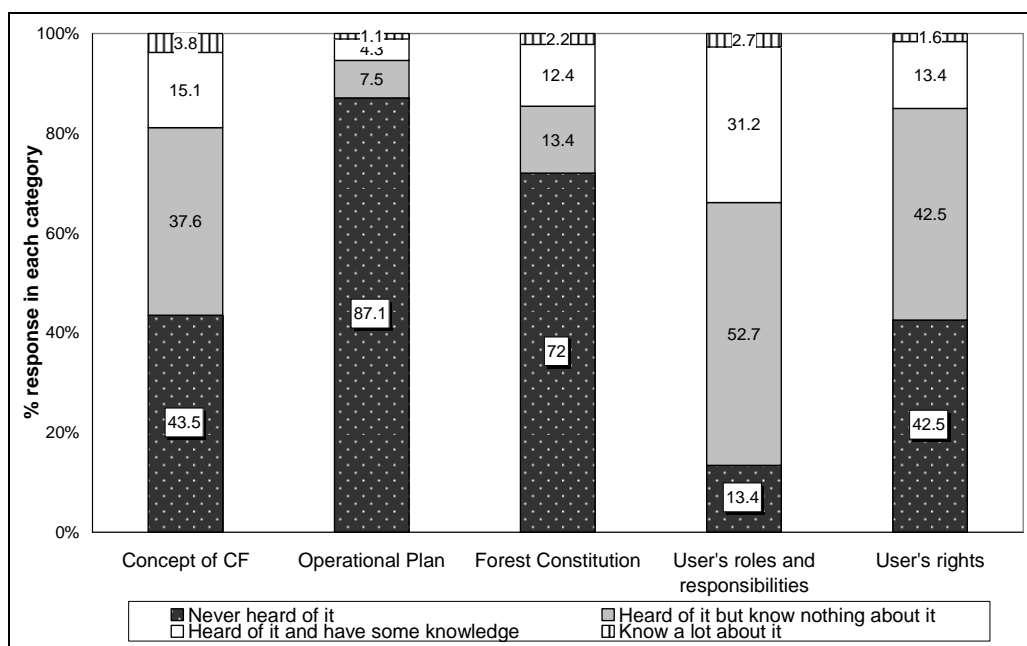


Figure 1: Respondents' knowledge of the formal documents as well as roles and rights in the user group

(Source: own survey, based on answers by 186 women)

The lack of knowledge about the regulations in the forest constitution can foster misunderstandings. For example, the member list in the forest constitution of both CFUG comprises a man's and a woman's name for each household, a fact that only 4.3% of respondents are aware of. More than 95% of respondents stated that only one person from their household has his name listed in the forest constitution. This person is assumed to be the head of the household: 51% stated that it is their husband, 24% their father in-law. This assumption is linked to the traditional deference to the male head of household, characteristic of a patriarchal society such as Nepal. The constitution states that "at least one member of each household should attend the general assembly", a fact that few women are aware of:

Only one person per household is called to the assemblies. So my husband, the head of the household, participated from my household. If two persons, both men and women have to attend general assemblies, I will start attending. [CT, Majuwa]

The poor flow of information thus leads to misunderstandings and erroneous perceptions about crucial issues such as the right to attend general assemblies or the ability to propose changes to the constitution. Indeed, although the constitution is updated every 3-5 years to adjust the provisions to the needs of the community, women perceive them as having a "legal" status and thus as "hard to influence and make changes" (BM, Dugur), rather than largely based on choices by the CFUG members. The fact that such misunderstandings are not cleared by the executive committee indicates that they use the knowledge about these key documents to symbolically distinguish between those who take decisions and those who actively work in the forest.

Perception of the executive committee and its decision-making process

To assess the perceptions regarding the central decision-making body, i.e. the executive committee, respondents were asked how committee members were selected. Surprisingly, about 40% of respondents do not know how the members of the executive committee are selected. A further 16% are unsure and provided a vague answer such as “it is a society’s decision, we all nominate”. Finally, 44% of respondents stated that the members are selected according to their abilities, where literacy plays a key role (see Table 1).

Table 1. Women’s statement regarding the attributes required to become a member of the executive committee (multiple responses were admissible)

Attribute	Description of the attribute by the respondents	Percent of respondents mentioning the attribute
Literacy skills	Educated, ability to read and write, ability to keep accounts	79
Rhetoric skills	Natural communicator, vocal, authoritative, ability to persuade or convince others, knows how to speak in public	55
Knowledgeable	Aware, clever, one who knows more	52
Personal skills	Skills for facilitation, discussions in public meeting, highly capable to take new initiatives	45
Committed to work	Active in social and community activities, trustworthy	45
Broad networks	Who has access and contacts at different places	27
Local elites	A combination of all or many of the attributes listed above many a times coupled with comparatively better economic position than the other households in a village.	21

(Source: own survey, answers by 82 women)

In both CFUG, women perceive that these key attributes are mostly found in men. Indeed, men are more likely to be literate, and tend to have more experience with public deliberations, given their traditional role as the household’s voice in the public sphere. Men are also seen as “more knowledgeable” regarding matters that affect the whole community. As men are more likely to have attended formal schooling, they tend to claim control over the committee, not least based on their literacy skills (Lachapelle et al. 2004; Behera and Engel 2005). Women thus tend to feel inadequate to become members of the executive committee, and feel that they cannot contribute to the decision-making process:

I am uneducated. The secretary and treasurer [both men] are educated and they take care of everything and inform me. I say "ok" to their decisions.
[Woman president of the executive committee, Dugur]

This perception of women being unqualified is widely voiced by respondents during interviews and group discussions. This is significant given that in Dugur 6 of the 12 members of the executive committee are women, while in Majuwa 3 of the 9 members are women. Although women are in effect members of the executive committee due to legal requirements and to ensure good relations with the District Forest Office, this has not yet been fully integrated socially or understood as an asset. Such inconsistencies between perceptions and reality are a sign of transition, of a renegotiation of which practices are deemed desirable. Indeed, practices and social relations are not mechanically reproduced but mediated by experiences and their interpretation. Both men and women might be ambivalent when faced with women in the executive committee, unsure of what to make of this new situation, what meaning it has and how it will be used by various groups. The situation is thus contested, being seen by some as an opportunity to experiment, while it is opposed by others. In the following quote, this ambivalence is implicit, in that the woman has not (yet) resigned, despite her husband's disapproval:

I was appointed for general member post. When I told my husband that now I am an executive member of our CFUG, he asked, "Why do you have to be a member? Now, who will do the household work?" Every time I attend meetings, he gets angry with me. I am going to resign. [Woman member of the executive committee, Majuwa]

Thus, although ensuring representation of women in the Executive Committee can provide them with a platform to voice their views (Tinker 2004; Upadhyay 2005; Vissandjee 2005), in Majuwa and Dugur it has not allowed women to effectively influence decision making (yet). This might make fulfilling quotas lead to little more than tokenism. However, such a summary assessment may overlook more subtle processes that are on-going and whose outcome is open. Indeed, the information and experiences women have as members of the executive committee are likely to open up new possibilities for the way they see and react to the world around them (Fussel 1996; Mohanty 2002 cited in Cornwall 2003:1329). This is not only the case for the women, but also for the men in the executive committee and the community at large, all of whom are experimenting with this new arrangement. This opportunity for learning and experimenting with leadership is recognized by women:

Women who are in executive committee also benefit. These women learn how to speak and act. Many of them have in fact increased their verbal skills of communication and gained confidence. They can now say 'two things' about community forestry and convince others about forest protection and management. [MT, Majuwa]

Including women as members of the executive committee is thus likely to affect not only management decisions (Agarwal 2009), but, over time, also induce shifts in values and beliefs. Indeed, despite the symbolic way in which only literate people are considered legitimate to take decisions in the Executive Committee (see also Nightingale 2005), illiterate women, through their daily interactions with the other members of the Executive Committee learn “how to speak and act”. This apprenticeship enlarges their repertoire of social interaction modes, thereby redefining their potential roles in the community.

Perception of the general assembly

The General Assembly is gathered once or twice a year by the executive committee to discuss and decide about forest management measures, to amend or revise the Forest Operational Plan and possibly to elect new members to the executive committee. It thus can be an important platform for discussion, negotiation and contestation regarding proposed measures and impending changes. Although the general assembly tends to be captured by a few members of the executive committee in terms of setting agendas, generally discussions are deliberative, communicative and responsive to members (Pokharel and Ojha 2005).

Of the interviewed women, 43% usually attended the general assemblies. This is significant since the women are not aware that it is their right to attend the general assembly since their name is included in the membership list. Instead, they have claimed and established their right by attending. This is a creative act (Dalton, 2004) by these women: they adapted their habitual practices as they perceived it as necessary. Over time men have tacitly acknowledged their right to be in this public space. Thus, through their acts, the women have renegotiated what is considered as acceptable behavior:

Things are much better now, more women go to the general assembly. Husbands do not argue much now if women go to meetings. The community has also started to value women in some ways. [DT, Majuwa]

Whereas attendance at the general assemblies is increasingly becoming the norm, it does not necessarily translate into active participation in the debates. Most of the women (65%) said that they prefer to “just sit and listen”. However, the passive behavior of some of the women should not imply that they feel that they have no right to speak up. The vast majority of interviewed women (88%) do not see it as inappropriate for women to speak up during meetings. Still, they admitted that it requires a lot of courage, communication skills and an encouraging environment to express opinions in a formal, public forum.

However, here too, a snap-shot approach to assessing the currently dominant behaviors should not hide the fact that there is an underlying process of experimentation. There is a significant minority of women (35%) who speak up during meetings and dare to ask questions. These women are engaged in creative action, in renegotiating social norms.

Through their behavior they not only improve their own skills, but may induce shifts in the behavior of others and the norm of what is expected of women:

It has not been long that women started to attend the General Assemblies. Earlier, there were very few women. Nowadays, the society anticipates that women come and attend the General Assemblies. This is a big improvement. Things have slowly changed but they have changed on a positive note. I am sure in coming days, women will gain more confidence and will not feel shy to talk what is going on in their minds. But this will take time. [PT, Dugur]

The women generally might still refrain from voicing their views, for a variety of reasons e.g. deference to those who 'know', to safeguard social cohesion, due to time constraints set by their household duties or because they do not expect to be listened to. Still, some women are experimenting with various ways to make their views heard during the general assembly. In this process they gain insights regarding both argumentation and successful behaviors, not least by observing the men and women who successfully object to a proposition by the executive committee and learn to be assertive:

Normally, people do not listen carefully when a woman speaks in the general assembly. Even sometimes, people pretend that they listen to women, but they do not include women's issues into final decisions. If a woman has to get herself heard, she has to act very, very assertively. [BT, Dugur]

Indeed, over a third (35%) of respondents stated that they exert "some" influence, especially in decisions regarding the duration and timing of forest closure, measures to protect the forest and rules about the distribution of forest products. Agarwal (2001a) has termed it "activity specific" participation. These decisions affect the women's abilities to satisfy the needs of their households and they feel self-confident about their right to ensure that their needs are met, e.g. by ensuring the protection of the forest against intruders:

Women will protest to the executive committee if forest protection is questioned. If there were some illegal entry to forest, and if the executive committee did not pay proper attention to such thefts, then they knew that women will raise issues against that. [LT, Majuwa]

The fact that there are certain areas where women are influencing decisions can be seen as indicating the start of a process that might come to include a wider range of issues over time. But this process is open, and there is no certainty that women's participation might not be limited to areas related to their domestic responsibilities (Agarwal 2001a). The women themselves see room for improvement, as only 43% were "completely satisfied" with their current level of influence on decisions. Thus more than half of respondents are unsatisfied either with their ability to influence decisions generally, or with the types of decisions they can influence. Implicit in their assessment is the expectation that they 'should' be able to have more influence, thus questioning the traditional norms that leave such decisions on community matters entirely to men.

Women expressing their views through direct consultation

If women hesitate to take the initiative and voice their views in a public setting, it might help if a member of the executive committee asks them directly or personally. Such a consultation might be undertaken either during the general assembly or before. In the survey, women were thus asked if they had been consulted and asked to express their views. The majority of respondents (56%) said that they had never been consulted. Of those who were consulted, about a third (28%) did not voice their ideas. However, nearly two-thirds (72%) said that if consulted, they do voice their ideas and concerns.

The acceptance that women (sometimes) should be consulted before decisions are taken is in itself an important step. However, there is still the understanding that women need to be consulted on certain topics only, such as times of forest closures or measures to protect the forest. This means that women's views are rarely asked for on issues such as time and date of a general assembly, use of forest funds or the choice of species to be planted (see also Paudel 1999)

But women do not necessarily wait to be asked. Indeed, if they do not approve of a decision, nearly 23% of respondents will personally ask questions to a member of the Executive Committee during the General Assembly. As the following quote shows, there are instances where women do voice their views and directly address the executive committee, requesting a change in a decision that had already been taken:

Last year, the executive committee decided to open the forest during Dashain [one of the most important festivals in Nepal]. I did not like the timings. This is a festival time, I have to clean my house, entertain my guests and cook different kind of food in addition to my daily routine of work. I am sure I do not have much time to go to forest and collect the forest products. I told that I did not like it and asked the executive committee that the timing should be changed. We need time to celebrate Dashain. Later, the executive committee decided to open the forest a week before Dashain. [ST, Majuwa]

In this example the woman's resistance was based on her domestic duties, and changing the date to allow women the time to prepare for the festival benefited both men and women. Nonetheless, it is an example of a woman speaking up in a public space and self-consciously arguing her position. Given that the decision was later changed to accommodate her concerns, it will give her a feeling of self-efficacy. Such seemingly small incidents open options that until recently were unthought-of: a woman voicing her views in public and changing a decision, no matter how small. As the process was tacitly sanctioned by the executive committee and community at large, it is conceivable that women might be emboldened to raise their voice on other matters too. Thus, both the fact that the woman was willing to protest in a public space, and the fact that the executive committee accepted her protest as legitimate, in effect giving her a say in the decision, are significant (see also Nightingale 2006). According to local cultural norms, this was not an acceptable behavior by the woman or the men. Women were expected to obey their husbands, father-in-law and other decision makers, who in

return were expected to listen to women's views or preferences. Yet the woman did protest the decision in direct and public opposition to the executive committee. Such an incident shows how gender norms are contested as the women redefine in what spaces and contexts they can voice their views. It is also an example how the women can use community forestry as a platform to contest gender roles: using the legitimate reason of an upcoming festival with its domestic workload, the women questioned the wisdom of the executive committee's decision.

Conclusion: Community forestry as a supportive frame for processes of social change

The results of the survey confirm previous reports that women's participation in the CFUG seem to be mostly tokenism, i.e. that they are often co-opted as members of the executive committee. However, the women's perceptions as voiced in the interviews and group discussions, point towards the need for a more nuanced analysis to understand the underlying dynamics. This type of analysis requires a complementary mix of methods. Especially the in-depth interviews and the group discussions allow shedding light on subtle processes that are missed by indicators such as the number of women in the executive committee or the share of women attending the general assembly. The interviews and discussions showed that women's perception tend to be process-oriented rather than a snap-shot assessment of a situation at one point in time. Thus, if the goal is to understand progress in women's involvement in community forestry, it would be helpful to ensure that evaluations include participatory methods. These will provide the information needed to adequately interpret quantitative data, since the same figure can be the result of very different processes.

The women involved in this study do not see themselves as passive casualties of male domination. Some of them take the opportunities offered by the CFUG structures and actively shape their social world by renegotiating their rights. Evidence of the processes of change can be found in incidents that might seem minor, but through such subtle shifts, some women experiment with alternative behaviors, contest traditional norms and increasingly assert their rights. As a result women's attendance at the general assembly has become an expected behavior, and voicing her views in a public forum is no longer seen as an indecent activity for a woman. Using a public forum to demand that a decision made by the executive committee be changed might still be rare. But it is an achievement in a society where, traditionally, people of authority are not questioned. Some women are challenging decisions, experimenting with voicing their views in public, thus gradually building their self-confidence and their feeling of self-efficacy, even if they encounter occasional setbacks. This process might be slower than development agents or policy makers would wish, but that does not make the progress less significant for the women struggling with the complexities of real life.

Externally-induced changes in structure such as quotas for women in the executive committee are important supportive measures to create an institutionalized space for women's participation. Women, as well as other marginalized groups (Nightingale 2005), can then use this space to experiment with new behaviors. Such experiments can add up, and in time induce shifts in what is perceived as acceptable or desirable by both men and women. It thus seems simplistic to expect a change in the behavior of women as soon as structural changes are implemented. The fact that all the women do not immediately assert their right to equal participation should not hide the fact that the information women receive and the experiences they make as members of the executive committee can lead to a revised understanding, opening up new possibilities for the way women see and act (Fussel 1996). These are indicative of how microsocial change processes are initiated and sustained by creative acts taking place in daily encounters (Dalton 2004), e.g. during meetings of the executive committee. These results mirror Nightingale's (2006), which show that gender is a process: subjectivities are produced and shift over time. Gender is not constant but is transformed during daily interactions of people and the CFUG provides a valued forum for such interactions.

Thus achieving a truly community-based natural resource management is generally a slow and continually evolving process (Flint et al. 2008). It may be a question of the glass being half-full, and we do not mean to be unduly optimistic. This renegotiation of meanings and possibilities are contested and progress is not expected to be smooth, setbacks are bound to happen. Furthermore, the outcomes of these social processes are not determined a-priori, and it is not inevitable for disadvantaged groups to climb the "ladder of participation" (Agarwal 2001a).

However, we see the CFUG as a crucial platform for this negotiation process, a process which needs a forum of public deliberation, where the traditional social order can be contested. The CFUG is such a public forum. The external pressure to be inclusive limits the possibilities to exclude disadvantaged groups. The CFUG is also focused on a natural resource that is essential for the livelihoods of all in the community. The stakes are thus high, increasing the likelihood of engagement and the need to find ways to accommodate differences, to resolve disputes and to find creative approaches to conflict resolution. This is not self-evident, especially in times when the national politics are unruly, markets unreliable, income opportunities unstable and livelihoods precarious.

The value of a community-based approach is its ability to raise the level and quality of dialogue and participation in natural resource management (Flint et al. 2008). At the same time it is important to recognize the difficulties associated with accommodating the different needs and priorities of various groups, and the influence of complex and informal social norms related to caste, wealth, age and gender. The men and the women, the elite and the low-caste need time to experiment with new behaviors, learning how to assert their needs while accommodating others', how to debate in public, and how to resolve conflicts (Nightingale 2005). They need time to recognize the

opportunities to improve the community's well-being and the benefits of including women's knowledge of forest ecology. The CFUG should thus be understood not only as an institution focusing on forest management, but also as a frame for a social process, providing both men and women the opportunity to explore new modes of interaction, identifying common interests. This wider conceptualization of a CFUG strengthens its ability to contribute towards the dual process of promoting the ecological health of the forest and democratic processes within the community. Both are processes that need time: they are unfolding and not to be hurried.

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PUBLICATIONS

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Giri, K., & J. Gurung. 2008. Still a Man's World: Reflections of Women Foresters in Nepal. Conference proceedings of the IUFRO Gender and Forestry Conference, held November 16-19, 2008 in Dehradun, India.

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PRESENTATIONS AT CONFERENCES

Invited panel presentations

- Giri, K. 2009. The role of students from developing countries in the internationalization and their importance in the development policy context. Panel presentation at the Conference 'Internationalisation and development policy dimensions at universities and universities of applied sciences', held April 16-17, 2009 in Vienna, Austria.
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Selected Presentations at scientific conferences

- Giri, K. 2009. Women as forest managers: Coping, contestations and change. Conference on women's empowerment and development: Meanings, manifestations, and contestations, held June 19-20, 2009 in Brighton, UK by the Institute of Development Studies.
- Giri, K. 2009. Outmigrating men: A window of opportunity for women's participation in community forestry? 2nd Gender and Forestry Conference: 'Making a difference in theory and practice' held June 15-18, 2009 in Umeå, Sweden.
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Scholarships

- Natura travel grant for the poster presentation at the Tropentag 2009:Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources, to be held on October 6 - 8, 2009, Hamburg, Germany.
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'Critical Social Theory', Summer course organized by the Wageningen University, held August 26-29, 2007 in Wageningen (The Netherlands). Coordinator: Petra Derksen.

'Youth Encounter for Sustainability (YES)' organized by the Center for Sustainability of the Swiss Federal Institute of Technology (ETH Zürich), held August 12-28, 2006 in Braunwald (Switzerland). Coordinator: Michelle Grant.

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WOMEN AS FOREST MANAGERS: THE EFFECT OF MEN'S OUTMIGRATION

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Dedicated to my parents

Reshama GIRI and Ghana Shyam GIRI

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I am responsible for misrepresentations and glaring omissions, if any.

Prologue

The road towards the final version of this thesis had been an iterative learning process for me. Three years of PhD that at times felt motivating, exhausting, lonely, but now feels endearing and gives me a sense of accomplishment, of a learning process.

Trained as a forester, my interest in gender and social issues got reinforced while working with rural communities in Nepal. Forestry, broadly viewed as a technical science, is ultimately a social issue in Nepal, where its management involves the complexity of sustaining livelihoods, preserving biodiversity, and challenging discriminating power relations. Particularly, the rural women have always fascinated me. I got intrigued, and puzzled thinking how the rural women seek novel situations, in times that seem so challenging. The lives women lead, their adaptive capacity despite the struggling livelihood and discriminatory limitations, have always inspired me to look for positive change despite the difficulties.

I believe that the goal of any research is to contribute to the transformative process of society. I chose to do this by illuminating discussions on social process analysis and adaptive governance of natural resources, with an explicit focus on women as adaptive managers. I hope that this thesis makes a positive contribution in this direction.

Abstract

The community forestry programme of Nepal aims to strengthen the participation of disadvantaged communities, such as women, in the management of natural resources. However, even after three decades, women's active participation remains a challenge. Empirical studies point to various discriminating social structures and mechanisms as factors limiting women's participation. The current trend towards men's outmigration, as observed in the Mid-hills of Nepal, is changing these social structures and might offer new opportunities for women's engagement in community forestry. This research investigates how the dynamic social context brought about by men's outmigration affects women's participation in community forest management.

Employing a case study approach, data were collected from four community forest user groups in the Mid-hills of Nepal, using key informant interviews, a survey, in-depth interviews and focus group discussions. Theoretical concepts such as feminism, gender, and the agency-structure debate were used to guide data analysis.

The case study shows that men's outmigration can increase women's participation in community forest management. However, different structural factors, especially family composition, mediate this influence. In the social context, that is understood as dynamic, women use various microsocial processes to influence forest management decisions as well as shape their roles and rights. Moreover, the findings indicate the need of understanding women's participation as a transformative process that is adaptive and responsive to the changing social context. This process is not well captured by quantitative surveys or statistical data. To adequately assess the progress in women's participation in the management of community forests, complementary qualitative methods need to be used.

These findings allow deriving theoretical, methodological and policy recommendations to support women's empowerment and their effective participation in the management of community forests. At the theoretical level, the study indicates that a mix of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. At the methodological level, it shows the need to employ a carefully designed mix of quantitative and qualitative methods to capture the various dimensions of women's participation and thus enrich our understanding of empowerment processes. At the policy and management level, these findings advocate the need to understand society as a mutable context and analyze the impact of policy measures within a reflexive and adaptive framework. Thus, a nuanced look at social processes is essential to ensure that increasing women's active participation in programmes like community forestry is achieved through a socially just change process that is both adaptive to the changing social context and transformative against discriminating power relations.

Keywords: Men's outmigration, participation, community forest management, women's empowerment, social processes.

Kurzfassung

Das Programm der Gemeinschaftswälder in Nepal zielt darauf ab, die benachteiligten Bevölkerungsgruppen, wie z.B. Frauen, in Entscheidungen über die Bewirtschaftung der natürlichen Ressourcen einzubeziehen. Nach drei Jahrzehnten ist die Bilanz jedoch nicht so positiv wie erhofft. Empirische Erhebungen haben eine Reihe diskriminierender sozialer Strukturen identifiziert, die die aktive Beteiligung der Frauen einschränken. Derzeit wird in den mittleren Höhenlagen Nepals der Trend beobachtet, dass Männer auf Arbeitssuche auswandern. Die führt zu Änderung in den sozialen Strukturen, und kann neue Möglichkeiten für die aktive Beteiligung der Frauen in der Waldbewirtschaftung bieten. Die vorliegende Studie analysiert daher wie sich die soziale Dynamik, die durch die Auswanderung der Männer verursacht wird, auf die aktive Beteiligung der Frauen in die Entscheidungsprozesse zur Bewirtschaftung der Gemeinschaftswälder auswirkt.

Im Rahmen einer Fallstudie wurden qualitative und quantitative Daten in vier Gemeinschaftswaldbenutzergruppen (community forest user groups, CFUG) in Nepal gesammelt. Es wurden Interviews mit Auskunftspersonen, eine umfangreiche mündliche Befragung, Tiefeninterviews mit Frauen und Fokusgruppendifkussionen abgehalten. Als theoretische Konzepte wurden feministische Theorien, Gendertheorien, Agency- und Strukturtheorien herangezogen.

Die Ergebnisse aus der Fallstudie zeigen dass die Auswanderung der Männer die Beteiligung der Frauen in den Entscheidungsgremien der CFUG erhöhen kann. Jedoch hängt diese Beteiligung von einer Reihe Einflussfaktoren ab, allen voran die Familienstruktur (insb. die Anwesenheit erwachsener Männer). Im sozialen Kontext, der als dynamisch angesehen wird, verwenden Frauen eine Reihe mikrosozialer Prozesse um die Entscheidungen, die den Gemeinschaftswald betreffen, zu beeinflussen. Auch verwenden sie diese Prozesse um ihre Rechte und soziale Rolle schrittweise zu verändern. Die Ergebnisse weisen darauf hin, dass es wesentlich ist, die Beteiligung der Frauen nicht ausschließlich anhand von leicht messbaren Indikatoren zu beurteilen, sondern die Beteiligung als Prozess zu sehen, ein Prozess der die Rahmenbedingungen (z.B. die politischen Unruhen) berücksichtigt. Dieser Prozess wird in den Statistiken (z.B. Anzahl der Frauen in Führungsgremien, Anteil der Frauen in Versammlungen) schlecht abgebildet, so dass er übersehen werden kann.

Aus der Fallstudie wurden theoretische und methodologische Anregungen, sowie Politikempfehlungen abgeleitet. Die Studie zeigt, dass eine Kombination aus mehreren Theorien, sowie aus quantitativen und qualitativen Erhebungsmethoden, erlaubt, komplementäre Sichtweisen auf die Fragestellung zu werfen. Erst dadurch wird ein differenziertes und ganzheitliches Verständnis von Prozessen ermöglicht. Bezüglich der Politikempfehlungen unterstreicht die Studie die Bedeutung von lernenden, sich adaptiven Politikprozessen, da nur diese eine Anpassung an die sich verändernden Bedingungen (innerhalb und außerhalb der Benutzergruppe) sicherstellen.

Table of Contents

Thesis structure	10
PART A: WOMEN AND COMMUNITY FORESTRY	11
1 Overview	12
2 Background: Community forestry in Nepal	14
2.1 Nepal in context	14
2.1.1 Farming system and forest resources	14
2.1.2 Women in Nepal	15
2.1.3 Men's outmigration	17
2.1.4 Research on left-behind women and variability	18
2.2 Community forestry and participatory decision-making	20
2.2.1 Community forestry and the concept of CFUG	20
2.2.2 Women's participation in managing community forests	21
2.3 Men's outmigration as a factor in women's participation in a CFUG	24
3 Theoretical concepts related to women's participation in natural resource management	26
3.1 Feminist theories	26
3.2 Gender theories	28
3.3 Theories relating agency and structure	30
3.4 Women's participation as a gendered process with interplay of agency and structure	31
4 Methods	33
4.1 Research strategy: a multiple case study	33
4.2 Research design: an iterative process	34
4.3 Start of fieldwork	36
4.3.1 Site selection	36
4.3.2 Selection and orientation of research assistants	36
4.3.3 Pre-testing the questionnaire	37

4.4	Data collection	37
4.5	Data analysis	38
5	Results: Summary of the papers	40
5.1	Paper I - Development and status of community forestry governance in Nepal	40
5.2	Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal	41
5.3	Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?	43
5.4	Paper IV - Nepali women using community forestry as a platform for social change	45
6	Discussion and perspectives	47
6.1	Summary of the present dissertation	47
6.2	Theoretical implications	48
6.3	Methodological implications	50
6.4	Policy and Management implications	52
6.5	Policy and Management implications	52
6.5.1	Dynamic social context and changing power relations	52
6.5.2	Participation as an adaptive governance process	53
6.6	Perspectives for future research	55
7	References	57
	PART B: PAPERS	73
	Paper I	74
	Paper II	101
	Paper III	113
	Paper IV	127
	Curriculum Vitae	145

Thesis structure

This thesis comprises two constituent parts. Part A presents the overall context, reviews the relevant literature on women and community forestry, details the theoretical and methodological approach, and summarizes the results and implications. Part B comprises the following four papers:

- I. Koirala, R., K. Giri, and B. Pokharel. 2008. Development and status of community forestry governance in Nepal. Proceedings of the Conference on "Forestry in a climate of change", the 2008 National Convention of the Society of American Foresters, held on 5-9 November 2008 in Reno-Tahoe, Nevada, USA.

Rajesh Koirala and I wrote the paper with inputs from Bharat Pokharel.

- II. Giri, K., B. Pokharel, and I. Darnhofer. 2008. In the absence of their men: Women and forest management in the Mid-hills of Nepal. In *Environmental Economics and Investment Assessment II*, eds. K. Aravossis, C.A. Brebbia and N. Gomez, pp. 295-304. Southampton: WIT Press.

I wrote the paper, with inputs from Bharat Pokharel and Ika Darnhofer.

- III. Giri, K., and I. Darnhofer. Outmigrating men: A window of opportunity for women's participation in community forestry? (Accepted with revisions, *Scandinavian Journal of Forest Research*)

An earlier version of this paper was presented at the 2nd Gender and Forestry Conference, held on 15-18 June 2009 in Umeå, Sweden.

I selected the topic of the paper, analyzed the data and wrote a first draft. This first draft was commented on by Ika Darnhofer. After I provided a revised draft, Ika Darnhofer contributed to polishing the text.

- IV. Giri, K., and I. Darnhofer. Nepali women using Community Forestry as a platform for social change. (Accepted with revisions, *Society & Natural Resources*)

An earlier version of this paper was presented at the 4th Young Scientist Forum, held on 29 October 2008 in Vienna, Austria. A later version of this paper was presented at the 'Development Matters Forum', Centre for Development Research, University of Vienna, held on 14 May, 2009 in Vienna, Austria.

The topic of the paper and analytical angle was proposed by me, with some additional suggestions by Ika Darnhofer. I analyzed the data and interviews and wrote the first draft. Based on comments by Ika Darnhofer, I revised the draft. Together we worked to finalize the paper

PART A: WOMEN AND COMMUNITY FORESTRY

1 Overview

While forests are a classic example of human-ecosystem interdependence, approaches to understand the association has varied greatly over the last few decades. With changes from top-down to bottom-up approaches (FAO 1978; Cohen and Uphoff 1980; Chambers 1983; Brownlea 1987; Farrington and Martin 1988), local communities have increasingly come to be considered as key stakeholders for sustainability (Agrawal and Ostrom 1991; Gilmour and Fisher 1991). As a result, the need to involve them and ensure their influence in shaping forestry policies became evident. This led to the formulation of various participatory forestry programmes around the globe.

Nepal is at the forefront of experimenting with the global theme of management shifts (Mahapatra 2000; Giri 2005), where state-based regulations are decentralized, power of decision-making are devolved to the local people, especially regarding the management of forest resources. At present, Nepal has gained worldwide recognition for its community forestry programme (Arnold 1998; Malla 2000; Chakraborty 2001; Pokharel 2004; Pokharel et al. 2005). Despite such significant leaps, challenges remain, particularly in terms of achieving significant women's participation in forest management (Kellert et al. 2000; Agarwal 2001a,b; Neupane 2003; Timisina and Paudel 2003; Buchy and Subba 2003; Upadhyay 2005). Indeed, achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women (Agarwal 2001a; Lama and Buchy 2002; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009).

Concomitantly, in the Mid-hills of Nepal, a trend of men's outmigration has been observed (APROSC 2003; NIDS 2007). This trend has led to changes in social relations and structures, leading to "feminization of communities" (Gill 2003; Pully et al. 2003; Kaspar 2006). The changes include the availability of remittances, an increased workload for women as well as a shift in women's responsibilities and their participation in the public sphere. Studies on these effects have shown a high level of heterogeneity in how communities adapt. In some communities, families without a male-head of household have lost access rights to common resources, while in other communities women have achieved more decision-making powers (Verma 2001; Hadi 2001; Zachariah and Rajan 2001; Haas 2007). Most of these studies have, however, focused on the effect of men's outmigration on women's role within the household (Khaled 2002; Kaspar 2006). The question thus remains whether and how men's outmigration affects women's participation in the management of common natural resources. Given that community forests are an important resource for women, the ability to articulate their needs and priorities, and to ensure that these are met is of particular importance. Hence, the overall goal is to assess which vital conditions and processes can increase women's participation in community forestry.

Based on this background, the central questions that guided this study are:

- What is the current status of community forest governance in Nepal? (Paper I)
- In what ways does men's outmigration affect women's participation in the management of the community forest? (Paper II)
- What factors affect the extent to which women participate in the management of the community forest during men's outmigration? (Paper III)
- How do women shape their social role in the public sphere so as to increase their participation in community forest management? (Paper IV)

This thesis is thus concerned with analyzing whether and how men's outmigration facilitates the process of women's active involvement in the management of community forests. The effects of men's outmigration on women's ability to influence decision-making, their public status and factors leading to heterogeneity need to be better understood. To contribute to this understanding, a combination of quantitative and qualitative methods was used, and a mix of theories was used as a guiding framework for the inquiry.

The following section presents the background and relevance of the study. This is followed by a section where theoretical approaches analyzing women's involvement in natural resource management are explained. The methods section presents the data collection and analysis techniques used in the study. Subsequently, the results are presented by summarizing of the papers I-IV. Thereafter, these results are used up for a broader discussion regarding women's participation in natural resource management. Finally, some thoughts for future research are recommended.

2 Background: Community forestry in Nepal

2.1 Nepal in context

2.1.1 Farming system and forest resources

Nepal is a landlocked country situated between China and India. Topographically, Nepal can be divided into three ecological zones (see Fig. 1), the Mountains (35%), the Mid-hills (42%) and the Terai (23%), each accounting for 7.3%, 44.3% and 48.4% of national population respectively (CBS 2001). In 2007 Nepal had approx. 29 million inhabitants, half of which are women (CBS 2001). More than 80% of Nepal's population lives in rural areas (CBS 2001). Most of the Nepalese are poor with an estimated 38% of the population living below the poverty line (Pradhan and Shrestha 2005:1) at a yearly per capita income of US\$457 (Basyal, 2008).



Figure 1: Map of Nepal (Source: maps/npcgis/NatBio00002.jpg)

Agriculture is the mainstay of the economy, providing livelihood for three-fourths of the population and accounting for 38% of GDP. Agriculture is subsistence based. Agriculture is highly dependent on rain and its productivity has not increased significantly during past decades (FAO 2000). Increasing agriculture production has been hampered by two reasons (ICIMOD 1998). Firstly, farm sizes are very small and land holdings fragmented: the average landholding size per household is 0.96 hectare, with an average of 4 parcels per holding (CBS 2001). In the Mountains and the Mid-hills of Nepal, a majority of households (67.5% and 53.6% respectively) have farm sizes

between 0.025 and 0.051 hectare (Munakarmi 1996 in ICIMOD 1998). Notably, out of the three ecological belts, land fragmentation is the highest in the Mid-hills (0.66 hectare) because land is mostly divided into terraces to counter erosion effects. Secondly, given the high elevation, steep slopes, shallow soils, and high precipitation, intensified cropping is not possible in the Mid-hills and the Mountains (ICIMOD 1998).

A majority of rural households thus depends on livestock and forest resources to supplement their livelihood. Livestock is a source of food, of income and a means of non-cash exchange. It also provides draught power, organic manure for crop production, and is used for transportation. The livestock population in Nepal, in relation to the arable land, is one of the highest in Asia (ICIMOD 1998). The livestock population in Nepal is estimated to be about 6.9 million cattle, 4 million buffaloes, 6.9 million goats, 0.7 million sheep, and 0.9 million pigs (CBS 2001).

Nepal has 3.9 million hectares of forest, covering 27.3% of the country (FAO 2005). Forests provide basic subsistence needs such as fuelwood, fodder, bedding material for animals and to some extent timber. Fodder from forests satisfies about 37% of the total livestock fodder need, and the fuelwood from forests meets about 81% of the total fuel consumption (WECS 1997 in FAO 2000). About two-thirds of households rely on fuelwood for cooking and heating, and an average household spends about 50 person-days for fuelwood collection in a year (Baland et al. 2004). Fuel needs differ in different communities depending upon altitude, climate, and use of agricultural residues. Using kerosene or liquid petroleum gas requires an additional cost of transporting and cow dung cakes are mostly used for manure. Fodder collection is more dominant in the Mid-hills. Therefore, most of the forests in the Mid-hills are managed for fuelwood and fodder and about 65% of these forests have predominantly small-sized timber (Winrock 2000:7). Poor people heavily depend upon forest resources to fulfil their basic (subsistence) needs for fuelwood, forage, timber, medicines etc, as they do not own private forests or adequate agricultural land (Adhikary and Ghimire 2002).

For more than a decade, Nepal has experienced internal conflicts, initiated by a group calling themselves "Maoists". Starting in 1996, Nepal has undergone severe political instability (Taras 2006). In 2006, after a series of joint meetings between Maoists and the Government of Nepal, Maoists stopped the guerrilla-war and became a political party in the mainstream development. At present, a working parliament, representing all the political parties, including Maoists, is governing the country.

2.1.2 Women in Nepal

The national constitution of 1990 declares that the State shall not discriminate against citizens on the basis of religion, colour, sex, caste, ethnicity or belief. And yet, various customs based on socio-cultural ideology are discriminating in nature. Nepal has more than 100 ethnic groups (CBS 2001) and women's status varies among these groups. Women of Tibeto-Burman origin generally enjoy more freedom than those of Indo-Aryan origin (APROSC 2003). However, it is difficult to generalize the situation of women in

Nepal, as different ethnic and cultural groups in the country treat the various roles of women with differing emphasis and priority (UNICEF 2006:61).

Men's and women's roles are socially and culturally determined (Pyakuryal and Suvedi 2000:57). In Nepal, a common understanding is that men are responsible for earning economic resources (such as money, livestock etc.) to support the family. Most of the work that requires public contact (e.g., attending public meetings) is performed by men. Also, some activities such as ploughing, fixing a roof, slaughtering animals and felling/splitting large trees are performed exclusively by men (Chhetri 2001). Women are responsible for maintaining the household chores and rearing of children. A study by Bhadra (1997 in Chhetri 2001) states that women perceive themselves as nurturers and men as providers despite spending more time than their men in productive activities.

Women's positions in society are mostly determined by their relation to men, i.e. through their position as daughter, wife, mother etc. Women's inferior status is mainly determined by cultural ideology, symbolism and socio-structural arrangements (Shrestha 1999, ICIMOD 1999). One widely practiced element of cultural ideology is the preference of son over daughter (during child-birth), with Nepal having one of the highest indices of son preference in the world. Sons not only pass on the family name, but also represent insurance for parents in their old age, and can carry out important rituals when parents die (UNICEF 2004:51). Daughters are not allowed to carry out such rituals in Indo-Aryan ethnic groups. In some Tibeto-Burman groups, such as the Gurung, a son-in-law is required to conduct the crematory rituals for his in-laws, thus enhancing the role of a daughter.

Existing symbolism based on purity concepts can also implicitly devalue women (such as defilement and pollution). As an example, women are considered impure when menstruating and during childbirth and are culturally forbidden to enter kitchens and temples. Women have only limited access to resources and only limited control over those they can access. Of the total landholdings, women own only 8.1% and the average size of their land is just about two-thirds of that an average male holding (UNICEF 2004:55). Marital status determines female's access to land and other property. A married daughter is not legally entitled to inherit her parent's property, whereas a wife is liable to entitle her husband's property. But a married woman can only claim her share of her husband's property, if he fails to take care of her needs, fails to provide her with food and clothing, or throws her out of the house (UNICEF 2006:67). Therefore, the daughter not only forfeits her right to parental property but also has only limited rights to her husband's property. Women also lag behind men in terms of education. Women's literacy is 38.9% compared to 63.5% for men (CBS 2001).

Despite the differences in social roles and meagre access to resources, women's contribution to both farm and non-farm activities is significant. Studies on family time-allocation have provided some estimates of rural women's overall contribution to the household economy (Sontheimer et al. 1997; Azad 1999 in IFAD 1999). In the Mid-hills, women were found to do equal to or more agricultural work than men (Sontheimer et al.

1997). In another study, women were found to work about 16 hours a day, compared to men who worked for about 9 to 10 hours (Azad 1999). Likewise, collection of forest products, mainly fuelwood, is primarily women's responsibility (FAO 1997), but in many places men are also involved. A study by Buchy and Subba (2003:315) indicates that both women and men identified fodder collection as one of the most laborious tasks. Many women reported spending more than four hours a day on it.

The work burden of women in Nepal is higher than the global average, not least because the participation of women in productive activities (informal trade) is one of the highest in the world (UNICEF 2004:52). Additionally, IFAD (1999), in a study undertaken in the central Mid-hills of Nepal, concludes that women's workloads are also increased by the geography and infrastructure, men's outmigration and new activities promoted under development projects. Collecting fuelwood, water and fodder becomes much more tiring and time consuming in the Mid-hills and the Mountains of Nepal due to difficult terrain conditions and poor access to roads, markets and water supplies, and thus consuming more of women's time. Similarly, a study undertaken by the Asian Institute of Technology in 1999 (IFAD 1999) in three villages in Kavre Palanchok district, found that men's outmigration doubled women's physical work burden and also increased women's community activities, especially for those women without sons. Women-headed farm households have a hard time, particularly when male labour is not available for tasks such as ploughing, which is taboo for women. Finally, newly promoted development activities such as in the case of forest management, women were found to carry out pruning and thinning of trees and were also involved in raising fodder species, because men were often absent.

Women's position in Nepalese societies can, however, vary. Wealth can affect the division of labour as wealthier women delegate some responsibilities to employed labour (Buchy and Subba 2003; Rankin 2003). Age and position of the women within the family (e.g. daughter, daughter-in-law or mother-in-law) also can affect decisions on who does what (Bhatt et al. 1997; Shrestha 1999). Caste affiliation seems to have some influence on the role and status of women. For instance, among the (so-called) lower caste people, economic imperative seems to put women next to their men in power status (in the absence of economic disparity) and for their contribution in maintaining the family economy (Chhetri 2001).

2.1.3 Men's outmigration

Migration has been a widespread phenomenon across the world. Nepal has had a long history of outmigrating men (ESCAP 1995), and in some rural districts, up to 70% of men outmigrate (Seddon et al. 2002). Despite being a dominant phenomenon, this is one of the least researched and least understood issues in Nepal. While the migrants, their problems, earned income, networks, development etc. have received considerable attention and have been the subject of extensive research, the gender dimension of migration, particularly the source communities and those left behind, has been largely

under-researched (Rigg 2006). In Nepal, scholars have investigated the interrelationship between migration and poverty, the remittance patterns of the migrants, and the impact of remittances on poverty alleviation and rural development (Regmi and Tisdell 2002; Seddon et al. 2002; KC 2004; Thieme and Wyss 2005). However, few studies have attempted to tie economic changes to the social and cultural changes that arise due to migration and are reinforced by it (Rigg 2006). In this context, it is important to examine the gender dimension of migration as gender roles, relations and inequalities not only affect those who migrate, but also impact the economic and social situation in the sending communities. Indeed, when men outmigrate, they leave their wives, mothers and daughters behind in the area of origin. These left-behind women need to reorganise themselves and cope with new challenges.

2.1.4 Research on left-behind women and variability

Previous studies have indicated that men's outmigration can lead increasing independence to the left-behind women. In the absence of their male guardians, women may have better access to resources (Hadi 2001). Women may also face an expanded space where they can make their own decisions, develop their own coping strategies (Hadi 1999; Zachriah and Rajan 2001). This can lead to a (re)structuring of traditional gender roles and a modification of cultural values (Hadi 2001; Sadiqui and Ennaji 2004). It can lead to changes in the gender division of labour including a "feminization of agriculture" (Gill 2003; FAO 2006). Women's labour contribution to agriculture and in the household can be more visible to the family members, and therefore more appreciated, thus increasing their status (Zachriah and Rajan 2001). Sometimes, the absence of their husband makes left-behind women more active in community development activities and farming (Deshingkar and Sven 2004:27).

Research on "Gulf wives" (women whose husbands outmigrate to Arab countries) in Kerala, India, asserts increased autonomy and social status of women in the absence of their husbands (Zachriah and Rajan 2001). When husbands outmigrate, women can develop innate capacity for decision-making, not only within the household but also within the community. "The husband's absence, increased economic resources at the disposal of the wife and the expansion of space and communication in public affairs (such as banking, schooling of children) have all been instrumental in transforming a shy, dependent woman into a self-confident autonomous manager with a status quo equal to that of any man in the neighbourhood" (Zachriah and Rajan 2001:69).

Kaspar's (2006) research on labour migration and gender relations in Kalabag village in Nepal reveals disparate and temporary changes in left-behind wives' decision-making. Her findings showed that left-behind wives take on many of their outmigrated husband's tasks which increase their workload. And yet, their influence in decision-making is constrained by several factors such as household type (extended versus nuclear family), relevance of decision factor (strategic versus operational decisions) and duration of absence of their husbands. She asserts that though women's participation in

public affairs increases, this participation is limited to increased physical attendance only. Moreover, women's expanded role and decision-making reverts back to the original situation once their husbands return to home, except in financial management and presence at community meetings (Kaspar 2006:299). And yet, she reports that some left-behind women may participate more in decision-making after migration, than they did prior to their husband's outmigration (Kaspar 2006:295). It was also noted that the prolonged absence of men can allow women to become more vocal in village decision-making.

Karki and Bhattarai (2004) state that, during men's outmigration, women in the Mid-hills are forced to take up chores, traditionally done by the men. Women ploughed the fields, repaired and replaced roofing material on their houses, took care of livestock and did every household chores, which was otherwise done by the men (Karki and Bhattarai 2004:93). Such changes imply structural adjustment in society where women, due to the need to cope with men's absence, break traditional forms of gendered activities and take up new roles and activities. However, the extent of benefits that women derive during men's outmigration are determined by factors such as women's age, their relative position in family such as wife or mother (Sadiqui and Ennaji 2004), and their ability to successfully adapt to the changing roles (Khaled 2002).

However, other studies contradict such positive images (Gurung 1999; Verma 2001; Haas 2007). They assert that men's outmigration leads to increased burden of responsibility and labour and further marginalization of women (IFAD 1999; Gurung 1999; Gurung and Gurung 2002). Also, they point out that this increase in women's labour does not necessarily result in women's control over the products of that labour (Gurung 1999; Verma 2001). Though women acquired men's roles in their absence, they often did not acquire their authority and decision-making power (Kaspar 2006). Another aspect is that the effects of outmigration are often temporary, and the gender relations revert back to the initial situation, once the husbands return. Therefore, it is still unclear, under which conditions men's outmigration can lead to changes in gender roles, especially with respect to women's increased access to decision-making.

Although it is widely assumed that women experience increased financial gains due to men's outmigration, in many poor families, the absence of their husbands can create a lack of economic means and can also lead to destitution for many of the left-behind women (Sadiqui and Ennaji 2004). If remittances were used to hire farm labour that would lessen women's extra work (FAO 1995). However, remittances might have no effect in cases where the remitted income is used for different purposes such as buying land. In such case, migration hardly has the often assumed effect on changing norms on gender roles (Haas 2007:35).

2.2 Community forestry and participatory decision-making

2.2.1 Community forestry and the concept of CFUG

FAO (2006) defines community forestry as any situation which intimately involves local people in a forestry activity. Community forestry programme arose out of the discourses of ecological crisis and forest degradation in Nepal (Nightingale 2003:527). Community forestry in Nepal aims to cover the basic needs, especially for those who are most dependent on forest resources; to promote community development through the income obtained from the sale of the forest products; and to conserve forests. Community forests are managed through a system where local people control, manage and use forest resources for their own benefits (Acharya 2002; Adhikary 2002), i.e. local people are involved as decision-makers (Winrock 2002). Community forestry stands on: a) institutionalization of farm-forestry relations, b) devolution of rights from the state to citizens (Belbase and Regmi 2002) and c) full entitlement of benefits to local users (except in the Terai, where local people have to pay a small percentage of revenue to the State).

The rights linkages are institutionalized by forming a user group, called a community forest user group (CFUG). The Forest Regulations 1995 (HMG/N 1995) and the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) include a detailed description of how the community forestry programme is to be implemented. The process of handing-over the management (but not ownership) of the forest should start with a written application to the Department of Forest which then sends a technician to help the user group prepare the constitution. The forest "constitution" outlines the rules for the use and management of the community forest, the rules for identifying the forest users, the rules for establishing the executive committee as well as their respective rights and responsibilities. All the households that use a particular forest, as demarcated in the operational plan of the forest, can become members of the CFUG. Department of Forest recommends a standard procedure using which the general assembly (comprising at least one member of every household of the user group) can elect an executive committee through mutual agreement. The general assembly should hold the rights to decision-making and the executive committee's role is restricted to implementing the decisions taken by the general assembly. Once the constitution is agreed upon, it is submitted to the District Forest Office which registers the user group.

Once registered, based on inputs from forest users and with the assistance from the District Forest Office, the executive committee develops an operational plan for the forest. This plan describes the location and physical condition of the forest, and prescribes specific silvicultural prescriptions for protecting and improving the forest. It specifically describes what type of forest products can be collected and harvested and how and to whom benefits from the forest are distributed. After the District Forest Office

approves the application, the rights and responsibilities of forest are handed over to the user group, now called as CFUG.

Decision-making takes place at two levels in a CFUG: the executive committee and the general assembly of all users. The executive committee's role is more that of facilitating and implementing the decisions taken by the general users. An executive committee is understood as the representatives of the general users, and is meant to bring forth the concerns of the general users. An executive committee usually has between 11 and 15 members, but the number may vary depending on the context.

At present, 1,654,529 households are members of 14,389 CFUGs, which cover about 31% of the total forest area in Nepal (DoF 2007).

2.2.2 Women's participation in managing community forests

The basic concept of community forestry rests on the notion that forests should be managed by those who use them. Involving the real users of forest can incorporate their knowledge into forest management and motivate to sustain conservation. Women are the primary forest users since they are responsible for collecting most of the fuelwood, fodder, leaf compost and bedding as well as controlling grazing. Being primarily involved in the collection and management of forest resources, women have developed a traditional knowledge base about the management and utilization of their forest (Agarwal 2001b). Such traditional knowledge can play an important role in the conservation of different species and varieties depending on their usefulness to the community (Upadhyay 2005:229). Considering women's dependence on and knowledge about forest resources, women's participation is deemed essential for the sustainable use of forests and the management of community forestry programmes.

Men's and women's interests and incentives for environmental resource management can differ in many settings, partly because of their socially constructed roles, and partly because of their lesser property rights and gendered interests (Masika and Joeke 1997:10; Cornwall 2003). This can lead to differing needs and use patterns of forest products between men and women. Men's and women's interests and incentives for environmental resource management can differ even within a household. Paudel (1999, quoted in Upadhyay 2005) highlighted the different priorities of women and men in the use of forest products in Nepal. Women opted for fuelwood, fodder and grasswood, whereas men opted for timber, fuelwood, and non-timber forest products. Women were concerned about covering their daily consumption needs, which were supplemented by forest products. Men's priority was to use forest as a supplement to the household income. Similar results are put forth by Flickenger (2003 in Howard 2003) in her study of the use of plants in Western Ghats in India where men gather plants primarily for use in agriculture (fodder and mulch); while women use the plants more for household purposes (medicines, cleansers, fibre, food and tools). Thus women's needs and priorities must be incorporated into community forestry, to ensure a just allocation of benefits. Since CFUGs regulate the mechanisms to manage and use the forest

resources by devising certain rules and control mechanisms, women's participation in community forestry can provide an avenue where women can voice their needs, priorities and perspectives and design mechanisms to fulfil them.

The Government of Nepal has emphasised the role of women's participation in various Development Plans. The Forest Act 1993 underlines women's role in community forestry programme. Different measures are recommended in policy and practice to increase women's participation. As an example, one of the widely used provisions is to allot one third of the membership in the executive committee to women. Likewise, the Operational Guideline of the community forestry program 2002 (HMG/N 2002) stipulates that for each household that is a member of a CFUG, the name of two adults (a woman and a man) should be registered in the forest constitution. The aim of listing a man and a woman for each household is aimed at encouraging women's participation in forestry meetings.

To distinguish between different levels of participation, Arnstein's (1969 in Ananda 2007) proposed a "ladder of participation". This ladder provides eight rungs, whereby each corresponds to a specific extent of citizen's power in determining decisions. The bottom rungs of the ladder are (1) "manipulation" and (2) "therapy" which describe levels of non-participation. Here the objective is not to enable citizens to participate in planning or conducting programmes but to enable power holders to educate the participants, i.e. people are told. Rungs (3) "informing", (4) "consultation" and (5) "placation" denote to levels of tokenism that allow the chance to hear, to speak and to advise but lack the power to ensure that those views will be considered, i.e., power holders retain the rights to decision-making. Rungs (6) "partnership", (7) "delegated power" and (8) "citizen control" involve increasing negotiation and decision-making of participants with traditional power holders.

Agarwal (2001a:1624) has adapted Arnstein's ladder of participation in community forestry. She puts forth six levels of participation: nominal < passive < consultative < activity-specific < active < interactive. Each level is determined by the extent of people's activeness. She states that mere membership to a group without any involvement reflects "nominal participation". "Passive participation" refers to a situation where women attend meetings and merely listen to decisions alone, without actually voicing their concerns. "Consultative participation" seeks for women's opinions in specific matters without any guarantee of their inputs influencing final decisions. "Activity-specific participation" is where women are asked to (or volunteer to) undertake specific tasks. Further, her notion of "active participation" is that women express their opinions, whether solicited or not and take different initiatives. The highest level, "interactive participation" is when women have the ability to speak, influence and implement the decisions.

Although community forestry is said to be a participatory process, active participation of women is still lagging far behind expectations (Shrestha 2004). Empirical evidences suggest various factors that constrain women's participation in community forestry.

Some argue that the socio-cultural context of Nepalese society and local power structure are the major barriers hindering the participation of women (Agarwal 2001a; Lama and Buchy 2002; Gupte 2004; Agrawal and Gupta 2005). This socio-cultural context is influenced by factors such as caste, wealth, age, education as well as individual status in the society and in the household (NPC of Nepal and UNICEF 1996; Agarwal 2001b). Additionally, women's high workload (IFAD 1999), the inadequate timings of forest meetings (Lama and Buchy 2002), the resistance from village men on the basis of gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lama and Buchy 2002) are found to influence women's participation in community forestry.

Decision-making processes in CFUGs tends to be captured by wealthier and upper caste men (Tiwari 2002; Gauli and Rishi 2004; Maskey et al. 2006). Poor individuals participate in certain tasks (forest protection, participation in thinning, pruning) as opposed to rich individuals who participate in decision-making (Maskey et al. 2006: 270-272). Gauli and Rishi (2004) state that the level of participation in decision-making of lower castes and women was low compared to middle and upper castes and men. Lama and Buchy (2002) condemn the social and gender blindness of community forestry stating that it fails to account for and address the in-built shortcomings of participation where power and status quo determines participation to a large extent. They also note that the current focus of community forestry is on the biophysical dimension of natural resource management (e.g.: greenery, good harvesting stock of trees etc.) but little has been done to reduce the drudgeries of women. As such, women's interests and concerns in community forestry are not well addressed and very few decisions that directly benefit women are implemented.

The system of representation in CFUG and executive committees can also lead to differences in participation and decision-making (Agarwal 2000; Nightingale 2001; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009). Gautam (2004) puts forth that the number of women into leadership positions is increased through promotion of 'women only' CFUGs. However, out of some 14,380 forest user groups formed so far, only about 770 are 'women-only' groups (DoF 2007). Some authors also pointed out that women-only groups are few in number, small in area, and with forests of poor quality (Gentle 2003; Rai and Buchy 2004). Therefore, management of such CFUGs cannot be equated with women's improved decision-making.

Agarwal (2000:305) states that the virtual absence of women from the decision-making bodies can lead to significant gender inequalities in the distribution of costs and benefits, and a range of observed or potential inefficiencies in functioning of the overall system. Nightingale (2001) points out that women's representation in executive committees can bring forth women's decisions. She explains that women's representation can also increase women's value from mere labour contributors to decision makers arguing their own perceptions, which can be regarded as scaling up in the social hierarchy.

Women's opportunities to influence decision-making in executive committees rest not only on getting women into these committees. It also depends on how and whether the women in committees represent women's interests, whether they effectively raise their and other women's views and, when they do, if they are heard (Upadhyay 2005). Acharya (2006) suggests that by positioning women as authoritative decision-makers (e.g. by assigning them vocal positions such as President or Secretary) in 'mixed' executive committees of CFUGs, women can actually access and control the decisions and address their concerns. Acharya (2006) cites the example that when women made decisions, they allocated a significantly larger share of funds (as compared to men) for social and community development activities, which can contribute to addressing the issues of poverty and social equity in Nepal.

Other factors that can affect the participation of women are dominance of local elites (Nightingale 2001), systemic gender ignorance in forest policies and programmes (Agarwal 2001a:1623), exclusion of women during the initial stages of community forestry handover (Giri 2005b), an apparent lack of interest, lack of self-confidence and awareness (Nightingale 2001; Lama and Buchy 2002), inferiority, vulnerability and a lack of transparency (Lachapelle et al. 2004).

Generalized empowerment strategies and plans of action will prove to be meaningless, if marginalized and disadvantaged groups such as women remain isolated or ignored, particularly because mainstream development policies and programmes almost invariably fail to reach them. Given that a) community forests are an important resource for women for fulfilling the subsistence household requirements; b) that men and women differ in their needs, priorities of forest products, and c) men and women adopt different management perspectives to address their needs in community forest management; it is imperative to include women and encourage them to articulate their needs and priorities. Upadhyay (2005) emphasizes that excluding women in community forestry can result in negative consequences not only for gender equity and women's empowerment, but also for efficient functioning and long term sustainability of these initiatives. Integrating women's needs and priorities in community forestry is thus essential to promote sustainable conservation of community forestry (Agarwal 2000; Agarwal 2009).

2.3 Men's outmigration as a factor in women's participation in a CFUG

Women's involvement and active participation in decision-making is essential to ensure that women's needs, priorities and perspectives are incorporated in the management of the community forest. However, increasing women's involvement is influenced by the socio-cultural context of Nepalese societies. However, such socio-cultural contexts are not static but undergo continuous adaptations under different mediating factors. Given that men's outmigration can lead to social transformation in gender roles and behaviours, this thesis investigates the ways in which men's outmigration affects women's participation in community forest management. By building on gender and

feminist theories, as well as by discerning the relative role of structures and individual agency, the goal is to the better understand how women themselves perceive the effect of men's outmigration on their ability to take on a more active role in the CFUG.

3 Theoretical concepts related to women's participation in natural resource management

“Nothing natural about natural resource management.”
(Anna Tsing, 1999:9)

As Tsing puts forth in the above quote, natural resource management is all ‘made’, both regarding the epistemological understanding of power and knowledge (Mohanty 1991; Mohanty 1998; Gururani 2002a) and concerning the application of techno-scientific ideas (Ojha et al. 2009). Moreover, resource management occurs in a social context, where differences in culture, norms and power relations regulate the systemic functioning of natural resource management. As documented in previous sections, women's participation in the management of natural resources such as forest often involves complex and interrelated parameters. This complexity stresses the need of an embracing concept that allows a careful analysis of the extent of women's participation in forest management, while taking into account the power relations in a given social context.

In this perspective, general concepts of Feminism and of Gender are discussed as approaches for understanding the division, role, knowledge and influence of women and men in environmental decision-making. Particular focus is given to understand such differentiation from a power perspective in both macro (related to men's outmigration) and micro (household roles and relations) perspectives, and how, why and when, such power relations get affirmed, negotiated, or changed. To understand the power dynamics and their influence to social change, theories relating to agency and structure are used.

3.1 Feminist theories

Feminist theories denote a range of theories with the basic principles of “Feminism”, which asserts equal rights and demands legal protection for women. Feminist theory is manifested in various forms (e.g. Marxist feminism) and disciplines (history, environment etc.). Central to studying women's roles and relations with the natural environment, Ecofeminism emerged in the mid-1970s, and was the first attempt to theorize these interactions (Banerjee and Bell 2007). There themes are at its core: exploitation, domination and oppression (Sargission 2001). Ecofeminism has itself come a long way since its inception, and there is now vast diversity within the field. The diversity can be broadly categorized into three positions: (a) essentialist ecofeminism, (b) materialistic/post-structural feminism, and (c) colonial/third-world feminism.

Essentialist ecofeminism alludes to a conception that there is a natural or essential connection between women and nature that gives women an innate understanding of

nature (Chafetz 2006). It contends that women, by virtue of their biologically based differences, are superior in some areas, such as nature and environment. This superiority is termed as the “feminine principle” (Shiva 1988). Many other eco-feministic writers supported the assumption that women, due to their proximity to, and intuitive relationship with nature develop innate “women-nature connections” (Shantz 2002). This position also contends that women’s oppression and destruction of the environment are interconnected forms of domination (Rogers and Shutten 2004). Essentialist ecofeminism plays a major role in questioning canonical knowledge and standards through an utopian perspective (Sargission 2001). It has also documented women’s unexplored involvement, role and knowledge in environmental management. However, its essentialist epistemic privilege (women as ‘essential natural lovers’, women as ‘holding nature’s knowledge’ etc.) has been extensively critiqued (Agarwal 1992; Leach 1992; Burley 2001). These critiques almost uniformly argue that such privileges might represent the inequalities and domination (now by women of men) of the very traditions it romanticizes. Also, it tends to sideline questions of inequality and social organization of oppression (Chafetz 2006). Further, essentialist ecofeminism tends to use “women” as an undifferentiated category, assuming that all women have the same kind of sympathies and understandings of environmental change. This is considered by many as too idealistic, and has been criticized for not focusing on the actual conditions of women (Leach 1991; Agarwal 1992; Burley, 2001). This critique highlighted the need to study women’s relationship with the environment in particular social, historical, and material contexts.

In response to such a critique, material/post-structural feminism espouses that material and other structural conditions where people live, are complicit in producing particular kinds of environmental problems. These problems place additional responsibilities on women in charge of securing the subsistence needs of their families (Agarwal 1994). Agrawal (1992) pinpointed the importance of material practices (which also includes issues of caste, class, race and gender) in bringing women closer to nature. This close association gives women more understanding and knowledge. Taking a case study in India, she puts forth the idea, that since women are primarily responsible for cooking and thus for firewood collection, they have to spend time in forest. This obligation of practice has increased women’s knowledge of nature. Leach (1991:12) espoused that women’s relationship with their environment, just like that of men, is shaped by specific social and economic processes, and that their interests and opportunities change as an outcome of their relations with men and with each other (see also Burley 2001). Other factors such as caste (Gupte 2004), access to particular types of knowledge, spaces and resources (Rocheleau et al. 1996; Rocheleau and Edmunds 1997; Reed 2000; Freidberg 2001) can equally determine the relationship between women and the environment.

Despite the fact that essentialist ecofeminism and materialist/post-structural feminism are based on different assumptions, there is a common ground regarding women’s environmental knowledge. Both of these positions put forth the idea that women’s

knowledge is valid and important and that their participation in environmental decision-making needs to be safeguarded. This is particularly the case in developing countries, where women face continued domination and oppression by men.

Contrary to both essentialist ecofeminism and material/post-structural feminism, Colonial/Third-world feminism emphasizes the urgent need to decode the essentialism of both 'women' and 'culture'. Post-colonial/Third-world feminism (Mohanty 1991,1998; Gururani 2002b; Grewal 2001; Nesiah 2003; Pyle 2006) critiqued the implicit assumptions to see power in binary terms (Western versus Third-world). They pointed out the universal tendency (of colonialization) and of overgeneralization (of white concerns) implicit in the assumptions putting the 'western women' as the reference for modern (Mohanty 1991, 1998). Contrasted to the (white) western women, the third world' women were naturally portrayed as victimized, in the grip of their outdated cultures, and thus needed to be saved.

Post colonial feminism asserts that development is not necessarily linear, power structures are not static and relations are liable to change. Also, women in the Third-world are not always passive receptors, but can actively shape and negotiate their social world. This emphasis requires a close look on how such negotiations, as well as the associated resistance, are taking place at the given context. At this point, gender theories can provide a framework to understand processes of the (re)definition of men and women as categories, as well as the (re)organization of social relations, where power is both contested and reproduced.

3.2 Gender theories

While feminism rests on the notion of biological sex (of masculinities and femininities), gender theories imply the social and cultural construction of sex, which is investigated in strict opposition to any kind of naturalization. This indicates that categories of men and women are social constructions, which are formed out of norms, expectations, and laden common-sense of what it means to be a man or a woman in a particular space and time (Gildemeister 2004 in Flick et al. 2004). Thus, the social construction of gender is achieved by obvious and subtle (power) relations that assign females and males to social roles and social spheres where they learn being women and men respectively (Burely 2001:165). While the gender approach offers the possibility to analyse the social construction of sex and the resulting similarities and differences due to such socially constructed practices, its main strength is that it seeks to uncover the power differential between them and the inequalities that the system of gender generates. Gender studies do not necessarily claim for the equal weight of both sexes (as feminism does), but examine the unequal distribution of power.

Thus, gender theories focus on questions of organization and performance of social relationships. These are understood as a relation of power and thus as a process, not as a state. As Butler (1990 in Malson and Swann 2003) has argued, gender is

performed by subjects and it is only through this performance that gender takes on any meaning at all. Yet, these performances are imbued with power, which brings forth the differentiation among the performers. Butler's work has put forth the idea that gender is not static but rather is constantly (re)defined and contested through the contexts within which it is invoked.

Pratt and Hanson (1994 in Naples 2009) argue that place is one context within which gender is constructed. Such constructions are related with material and symbolic meaning of places that were significant in shaping women's employment and accessibility. Furthermore, the qualities seen as male or female in a specific society may be different, or vary in different social class or ethnic groups or even families. Culture plays an important role in the choice of life options, and integrates with economic explanation. Concepts such as "women's work" or "men's work" are powerful in making jobs seem "suitable" or "unsuitable" for females and males; and strongly contribute to the "sex-labelling" of any process or domain, e.g. occupation (Acker 1990). In this way, concepts act as symbolic boundaries. Further, structural boundaries reinforce conceptual boundaries such as rules prohibiting men and women from doing work deemed to be fit only for the other. (Epstein 2006 in Chafetz 2006:46).

However, the work of Butler, Pratt and Hanson fail to take note that the context/place is not a static background for social relations, but that is constituted by social relations that can change. As illustrated by Gururani (2002a,b) in a case study in the Himalayas, gender roles and social relations are in constant reconfiguration. She states that social relations constitute environments and are transformed through daily interactions of people, forest and work. These interactions provide an excellent foundation from which to examine the mutual constitution of social relations and environments. She asserts the idea that gender relations are shifting.

Likewise, Nightingale (2006) emphasizes gender as a continual process of producing as well as deconstructing social relations. Based on a case study of community forestry in Nepal, she argues that gender and other constructs, such as caste, are continually constituted and contested. She provides an explicit focus on how gender and environment are mutually constituted. She conceptualizes gender as a process in a context by which power relations are performed and resisted.

While gender theories highlight the importance of social (power) relations between men and women in everyday practices, they do not explain how human actions involve persisting (and changing) patterns of power relations. Theories relating agency and structure can help to better understand the nature and the use of power in society, and the ways in which different social groups attempt to negotiate and challenge prevailing power relations.

3.3 Theories relating agency and structure

There is a long-standing scientific debate regarding the relative importance of human agency and of social organization of 'structures' as causes of societal change. The concepts of agency and structure refer respectively to peoples' capacities to act within a social context, and the basic organizational features of particular societies. At stake is the question of whether human actions are primarily the product of individual volition or of structures that surround them.

Scholars working with the concept of structure put forth the idea that there are two foci of analysis: that individuals' attitudes and behaviours are shaped in varying ways and to varying extents by the position that person holds in a social structure, and that the properties and trajectories of social structures themselves need to be analyzed. They espouse the notion that structures act as factors of causality and can vary from social class, religion, gender, ethnicity, tacit norms and customs (Ojha et al. 2009). Human being's roles within this process are merely limited to act as 'bearers' of the structures. Thus, humans do not make actions themselves, but under circumstances directly encountered, given or transmitted by, or within specific structures indicating that structures determine human actions (Meyer and Jepperson 2000; Fuchs 2001; Lopez and Scott 2002).

Scholars working with the concept of agency, on the other hand, focus on the capacity of individual humans to act and make their own choices (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Roy Chowdhury and Turner 2006; Banjade et al. 2006; Fudge 2009). The concept of agency conveys volitional, purposive and intentional aspects of human activity; that generate power. Thus, an agency perspective provides a more optimistic outlook on the humans' ability to bring about social change (Elsop et al. 2006:236).

Over the years, this abstract polarity between agency and structure was critiqued resulting into an increased understanding that both agency and structure cannot be understood in isolation from each other. Giddens's theory of 'structuration' posits that it avoids structural determinism through constant emphasis on the interplay of structure and agency (Giddens 1984 in Chouinard 1997). It offers a broader conception of social power as the outcome of struggle over allocative and authoritative resources (i.e., material wealth and decision-making power) and recognizes the significance of spatial organization in the structuration of social relations. Despite its loopholes (see Gregson 1986), structuration theory has pointed out the need to take a co-deterministic approach and understand the roles of structure and agency as complementary in mediating social actions (Dalton 2004; Gustafsson-Larsson et al. 2007; Hitlin and Elder 2007; Hitlin and Long 2009).

Women's participation in natural resource management, and forestry in particular is dominated by empirical studies focusing on the role of structures on limiting women's participation (Lama and Buchy 2002; Agarwal 2001a; Gupte 2004). Additionally, these

studies take an institutional perspective and limit the exploration of women's participation in formalized structures such as the executive committee and the general assembly (Rai and Buchy 2004; Acharya 2006). Such structure-laden perspectives, while helping to identify the factors that constrain women's participation, tend to fall into the trap of understanding structure as an immutable and static context. As such, the everyday gender and power relations and informal ways in which the resource actually is used and managed are neglected and remain invisible. Moreover, while structural resources are often critical, they are not always sufficient to lead to change (Kabeer 2001; Arora-Jonsson 2008b). This requires a closer investigation of agency in understanding community forestry as well as of exploring women's participation.

3.4 Women's participation as a gendered process with interplay of agency and structure

This thesis uses a mix of theoretical approaches such as post-colonial feminism, gender and structuration to analyze women's participation. This mix of theoretical concepts conceives women's participation as a gendered process that involves an on-going interplay of agency and structure. While both post-colonial feminism and gender theories stipulate the need of understanding the social context to analyze power relations, this thesis adopts gender theories for its emphasis on unequal social processes, but not only on women per se. Indeed, this thesis neither sees men and women as two opposite monolithic blocs, nor does it consider that active women's participation is possible only after the retreat of men. Rather, this thesis attempts to elucidate the processes through which different actors like women (and also men) effect social change and shape the means to participate in community forest management.

Thus, this thesis investigates women's participation as a gendered process that involves a continuous interplay of agency and structure. Using this theoretical lens, the aim is to signal that the interplay of power structures are not static at a given context, that relationships are being forged and changed in an on-going and open process, all and that new windows of opportunities can open at any time. Understanding women's modes of asserting their rights, their resistance as well as their reproduction of structures requires a nuanced approach. This will allow a better understanding about how women play out their concerns, in institutional structures and in informal settings. Thus, the use of structuration theory within a gendered process will provide a closer look at the micro-social processes taking place within and outside the executive committee or the general assembly. It will help in understanding how women confronted challenges, reproduced orders, and contributed to the practice and discourse of participation in resource management. This will illustrate different dimensions of agency as well as structures that can account for variability and change in women's capacities for critical interventions in participation, taking into account the diverse contexts within which women act, as well as the constraints that they continually face. Ultimately this type of theoretical perspective suggests how diverse social practices with different

logics may be at play, producing largely invisible tensions that can have significant impacts on women's participation..

4 Methods

This chapter first explains the research strategy of the dissertation. Then it elaborates the research methods to collect and analyze data.

4.1 Research strategy: a multiple case study

Case study research (Yin 2003) was selected as a research strategy because it allows systematic investigation while maintaining a contextually rich understanding of a phenomenon (Yin 2003; Flyvbjerg 2006; Baxter and Jack 2008). This is the most suitable strategy for this study because the issue was 'women's participation in forest management' but this issue could not be adequately understood outside the context-effects of men's outmigration in specific CFUG. Case study approach, which has been widely used in exploring forest management, has demonstrated its ability to capture the complexities involved (Banjade and Ojha 2005; Muhammad et al. 2009).

Given the limited empirical research that addresses the effects of men's outmigration on women's participation in forest management, part of this study is exploratory. The aim was to identify the key effects of men's outmigration on women's participation. The other part employs explanatory approaches to systematically explain the social mechanisms that can affect women's participation in community forest management, with an explicit focus on men's outmigration, but not limited to it. To ensure a minimum diversity in the empirical material, and to allow for cross-case comparisons, this study used a multiple case study approach (Baxter and Jack 2008).

Local social norms and ethical concerns were taken into consideration (Scrimshaw 1990) and empirical data were collected in the field, using a mixture of qualitative and quantitative methods. A qualitative approach emphasizes 'lived experiences', locates the meanings, perception and assumptions of people, and connects these to the social world around them (Miles and Huberman 1994:10). A quantitative approach emphasizes measuring variables and testing hypotheses that are linked to general causal explanation (Neuman 2006:151). The mix of qualitative and quantitative approach is designed to identify as much of the full spectrum of complexity associated with women's participation in forest management, as possible (Chaseling 2000; Baxter and Jack 2008).

The analysis builds on compounding the insights and interpretations obtained from in-depth interviews, focus group discussions, participant observations and a quantitative survey. This mix of methods also allows enhancing the validity and reliability of results (Patton 1990; Yin 2003; Flyvbjerg 2006). Since the research was conducted after building a good rapport at research sites, the data was further validated through inputs from key experts of different organizations. Further, the interviews and focus group discussions were not only used for data collection, but also for joint analysis and validation of previous results.

The case presented in this thesis can not be generalized to a population without considering the similarities of context, but may be used to guide research to increase understanding of the associated complexity of women's participation in natural resource management.

4.2 Research design: an iterative process

The process of collecting and analyzing data was kept reflexive and iterative. The data collected at one step were analyzed, allowing the researcher to fine-tune the next data collection step (see Table 1). As a first step, the existing literature on participatory forest management was analyzed with an explicit focus on women's participation. This helped obtaining an enhanced understanding of the current status of community forest management and associated governance challenges (Paper I). While women's participation emerged as a challenge, the lack of previous studies investigating the impacts of men's outmigration on women's participation in forest management also became evident. This necessitated conducting an exploratory study to assess the effects of men's outmigration on women's participation.

As a second step, the exploratory study was conducted in two CFUGs in Kavre district: "Chande Majuwa" and "Katunje Pakha". This study confirmed the role of men's outmigration in women's participation and allowed to identify a number of areas that are strongly affected when a husband outmigrates (Paper II). This study also helped to extend the set of questions used in a third step, where the effect of men's outmigration on women's participation in community forest management was assessed using a survey. This survey was conducted in two CFUGs in Ramechhap district: "Majuwa Bhumithan" and "Dugursing Hup" (Paper III). Undertaking the survey in Ramechhap ensured an adequate sample size and some variation in the practices that women adopt for participating in community forest management.

While both the exploratory study and the survey indicated an association between men's outmigration and women's increased participation in community forest management, the lack of qualitative information allowing to understand the social processes and mechanisms through which women's participate in community forest management, within the dynamic social context (as men's outmigration) became evident. To collect information on this, informal discussions were held with women and men both, as well as focus group discussions with women. This allowed to better capture the women's perspective on their involvement in community forestry, the associated challenges the women face and the strategies they use to tackle such challenges (Paper IV).

Table 1: Overview of the steps in data collection and analysis

Steps in the process	Details of collected data	Details of methods used for collecting data	Where	When	By whom
Literature review	Review of global changes in participatory policies and its effects on forest management in Nepal. Review of community forestry from sustainable livelihoods and governance framework. Review of existing challenges, with an explicit focus on women's participation in community forest management. Review of effects of men's outmigration on women's role and position in diverse settings and programmes across the globe.	Review and analysis of existing theoretical, methodological and policy related documents, journals, policy briefs etc. on women, natural resource management, community forestry, governance, migration etc	Austria and Nepal	October 2006 - September 2007	Researcher
Exploratory survey	Effect of men's outmigration on women's participation in community forest management. Factors that can mediate the effects of men's outmigration on women's participation	Three focus group discussion with 30 women. Informal discussion with men 5 key informant interview Review of the operational plan, constitution and minutes executive committee meetings of each CFUG.	"Chande Majuwa" and "Katunje Pakha" CFUGs in Kavre district	November 2007 – January 2008	Researcher, 2 research assistant, and 4 local facilitators
Questionnaire Survey	Women's attendance at General Assembly Women's influence in forest decisions Women's representation in executive committee Women's information and social networks Mediating factors for women's participation during men's outmigration	Personal interviews with 186 women using a questionnaire Review of the operational plan, constitution and minutes of executive committee meetings in each CFUG	"Majuwa Bhumithan" and "Dugursing Hup" CFUGs in Ramechhap district	February 2008 to April 2008	
In-depth interviews	Adaptation mechanisms of left-behind women due to men's outmigration Women's individual perception about their participation in community forest management.	Individual interviews with 30 women 10 key informant interviews Informal discussions with men		December 2008	Researcher and 1 research assistant
Focus group discussions	Women's collective achievements and challenges in community forest management Sharing validation of results obtained from questionnaire survey and in-depth interviews.	Five focus groups with 40 women		January 2009	Researcher, 1 research assistant, and 2 local facilitators

4.3 Start of fieldwork

4.3.1 Site selection

The process to select the research sites was cumbersome and time-consuming. Given the inadequate and scanty data on migration in Nepal, it was difficult to reliably identify districts with a high share of men who outmigrate. The Central Bureau of Statistics and NLSS have published data on international outmigrants and inmigrants at district level (CBS 2001; NLSS 2004). However, this data does not include seasonal or periodic outmigrants from a district. Birth registration is not yet comprehensively applied in Nepal, adding to the uncertainty attached to official statistical data.

Thus, a judgment-based protocol was developed to select suitable research sites. The criteria employed in the initial selection process focused primarily on those districts with a high rate of outmigrating men and with widespread community forest management. An initial interaction with key personnel from different organizations working in forest and migration issues in Kathamndu indicated potential research districts. Practical considerations, such as existing contacts, the willingness of stakeholders to participate, accessibility, and personal safety (given the Maoist insurgency) were also included in the protocol. The protocol allowed to identify two suitable districts: Kavre and Ramechhap.

In both districts, interviews with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level), and national as well as international non-government organizations allowed to short-list six CFUGs. All these six CFUG had a high rate of men outmigrating, a high level of women's participation, good access to markets, good forest condition and similar ethnic-composition. These CFUGs were then visited to verify the information. From the resulting list, two CFUGs were randomly selected from each district: "Chande Majuwa" and "Katunje Pakha" in Kavre district, and "Majuwa Bhumithan" (Majuwa) and "Dugursingh Hup" (Dugur) in Ramechhap district.

4.3.2 Selection and orientation of research assistants

The research assistants and local facilitators were recruited differently. Two research assistants, one woman with a degree in forestry, and one man with a degree in social science were recruited. Training them took four days and allowed to convey the research objectives, and explain the methods to collect data. Four local facilitators (1 man and 3 women) were recruited in each CFUG. Having women on the team allowed to build a friendly relationship and earn trust with the interviewed women. Having men on the team also helped in liaising with village men and gaining their support for the study.

4.3.3 Pre-testing the questionnaire

The questionnaire was designed in English and translated into Nepali, which is the most commonly used language in Nepal. The questionnaire was pre-tested with 20 interviewees in Katunje CFUG by both the researcher and the research assistants. The pre-test allowed to know the time it took to fill out the questionnaires, to check the flow and sequencing of questions. Notes were taken where the respondents found the questions obscure, repetitive or irritating. The questionnaire was then revised accordingly.

4.4 Data collection

Data were collected using both qualitative and quantitative methods in different phases between November 2007 and January 2009 (see Table 1). Face-to-face questionnaire survey, in-depth interviews and focus group discussions were used as the main methods to collect data. Additionally, interviews with key informants, informal discussions and participant observations were also conducted. Sampling at all levels of this study can be described as purposive (Neuman 2006). Interviewees are sampled with snowball sampling method (Neuman 2006).

The face-to-face questionnaire survey was administered to grasp factors that influence women's participation in forest management. Respondent's responses were solicited through multiple choice, numeric open-end and text open-end questions. The survey was used to test the knowledge derived from the literature review in a rigorous manner, and to assess causal relationships (Neuman 2006). While questionnaire surveys tend to be strong on reliability, the artificiality of the format puts a strain on validity (Dudley 2005).

In-depth interviews allowed a fuller understanding of the interviewee's perspective on the investigated topic with an opportunity to probe or ask follow-up questions (Kvale 1996; Berg 2009). The interview approach was personal and mostly conducted in interviewee's home.

While getting an idea of individual women's reality was possible using in-depth interviews, a collective understanding of challenges and achievements that these women faced in community forest management was also essential. Focus group discussions (Berg 2009:108) were conducted to obtain conscious, semiconscious, and unconscious perceptions and socio-cultural characteristics and processes among women. Thus, they elucidated both similarities and differences women have as a group.

Additionally, interviews with key informants such as the school teacher, forest rangers, local tea-shop owners, men and women executive committees were conducted. Informal discussions and participant observations in local settings also added to the validity of collected data.

Personal consent was obtained from each interviewee prior to their participation in survey, interviews and focus group discussions. Interviews and survey mostly took place in interviewee's homes, whereas focus group discussions were held at a convenient public place, which was suggested by the participants. All communication took place in Nepali language.

Data obtained from qualitative and quantitative methods were triangulated to counteract threats to validity (Kelle and Erzberger 2004; Berg 2009). These threats were identified each using several methods (see Fig. 2). Each interview was conducted by two research assistants so that they could compare notes and discuss their impressions afterwards. Each interview was also tape recorded. The results of the survey and interviews were then related to each other and further, cross-checked, if possible, with secondary information obtained from the minutes of executive committee meetings, constitutions and operational plans of the CFUG. Finally, the results were shared during focus group discussions to clarify the interpretation, and seek new or additional perspectives on an issue.

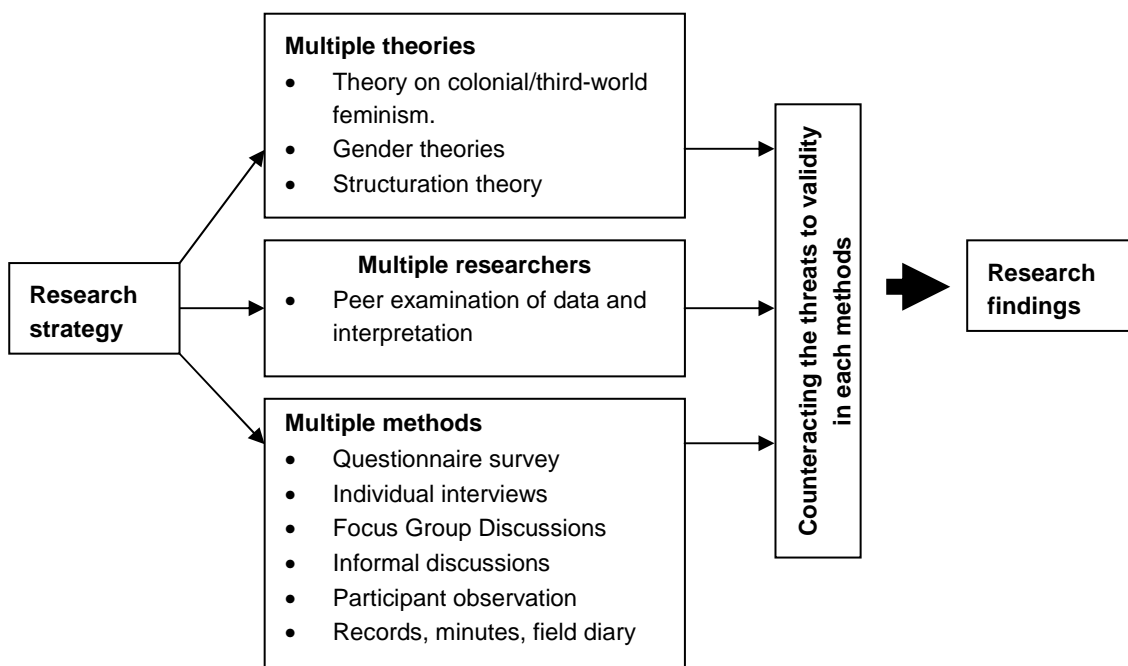


Figure 2: Data collection and triangulation techniques (Adapted from Berg 2009)

4.5 Data analysis

Quantitative data from survey was analyzed using statistical package SPSS 16.0 (Norušis 2008). Descriptive statistics such as percentage, mean, standard deviations, etc. were calculated to characterise the surveyed population. Chi-square and ordered logit regression were used to test the causal relationships between men's outmigration and women's participation in community forest management.

Qualitative data from in-depth interviews, focus group discussions, key informants, informal discussion, participant observation and field notes were transcribed, translated into English and analyzed using a content analysis approach (Berg 2009). Content analysis involves developing ideas about the information found in various categories; seeking emerging patterns based on the meanings that seem to be conveyed. The data was analysed to understand the women's view of their social world and the differences between the women's views. Generic labels or pseudonyms were used to identify communities and individuals, wherever required. Literature from similar studies was consulted to assess the reliability of results.

5 Results: Summary of the papers

This chapter is a summary of the four papers compiled in Part B of this dissertation. A brief description of each paper's purpose, main findings and implications allow an overview of the results based on the empirical material.

5.1 Paper I - Development and status of community forestry governance in Nepal

This paper has been published in proceeding of the conference: National Convention of Foresters: 'Forestry in a Climate of Change', held on November 5-9, 2008 in Reno-Tahoe, Nevada, USA.

This paper investigates the trajectory of community forestry programme and provides an analysis of its achievements and pitfalls. Community forestry programme is widely reckoned as a successful forest programme, having improved the forests' condition and user's livelihood (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Yet, challenges of empowering of women and disadvantaged groups remain, and successes are not uniform throughout the country (Agarwal 2001b). Both the challenges and achievements are part of a process, constantly influenced and mediated through both external (such as market, policy etc.) and internal (such as differential powers within a community) institutions. An understanding of these processes is essential to understand the complexity associated with managing community forests. Contributing to this understanding, this paper addressed the research question: what is the current status of community forest governance in Nepal?

Data were gathered from research articles, grey literature, and policy reports on participatory policies with an explicit focus on community forestry in Nepal. Based on a review of literature, this paper analyzes how external and internal institutions associated with community forest management have led to an adaptive process.

The findings show the interplay of global policies and markets with national policies on forest management in Nepal. National and international pressures were instrumental in shaping the forest management paradigm in Nepal. The early mode of tenured privatization saw a high degree of indigenous forest management with well-balanced goals of fulfilling the need for forest products and conserving forests. However, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people, transforming forests into an open-access common resource. As with Hardin's Tragedy of Commons (Hardin 1968), the deforestation and degradation of Nepalese forests led to regional flood disasters in the lower plains, giving rise to the Theory of Himalayan Environmental Degradation/Doom (Eckolm 1975). This occurred at a time when the international policy dialogue took a swing towards implementing participatory programmes for forest conservation (FAO 1978). As a result of the international donor

agencies' alarmist view, the Nepal government was accommodative to accept that without the users' participation, the government agencies were not able to sustainably manage the forest resources. Slowly policies became more favourable to community participation, and community forestry got momentum. Within two decades of predicted ecological doom, Nepal has established itself as a global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001).

The analysis indicates the ongoing process underlying the community forestry programme and highlights major setbacks, related to issues such as gender, caste and class. In particular, it draws its experience from the Nepal Swiss Community Forestry Project (NSCFP). The community forestry programme shows that Nepal has excellent evidence indicating a dramatic change in the status of forests: from severe deforestation to extensive regeneration within two decades. Still, the challenges are unfolding in nature. Moreover, challenges are at play all the times. The first generational challenge in community forestry was to convince and involve local people in community forest management, to gain their trust (Shrestha and Britt, 1998). While this has been fairly well accomplished, a set of other issues such as class, caste and gender discrimination within collective action became more apparent. These challenges have been met with success at some places, while at other places they remain grave. Learning from these encounters continues to enrich the policies and practice, through adapting existing legislation and developing novel rules and regulations.

Taking the standpoint of systemic learning and adaptive governance, this paper identifies the potential of community forestry to achieve collective change and sustainable forest management. Achievements till date have reflected the great potential of community forestry in achieving good forest governance, sustainable forest management and livelihood for the forest dependant communities of Nepal. Some of the crucial factors for the success of community forestry are the dynamic and adaptive nature of the programme, allowing a restructuring and reformulation of policies, and the devolution of authority to local communities. This mix of factors motivated local communities to participate in a transformed scenario and realise its potential benefits. Building on adaptive learning and transformative governance, community forestry reaffirms the fact that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

5.2 Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal

This paper has been published in: K. Aravossis, C.A. Brebbia, N. Gomez 2008 (eds.). *Environmental Economics and Investment Assessment II*. Southampton, WIT Press, pp. 295-304.

While the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women's participation and decision-making into such "participatory" processes has remained mostly rhetoric (Agarwal 2001; Buchy and Subba 2003). Indeed, evidence suggests that women's involvement in community forestry has mostly been "passive": women's household entitlement to membership in community forest user groups (Lachapelle et al. 2004; Upadhyay 2005). As such, women are often reported as simply position holders, without the possibility to influence decision-making (Lama and Buchy 2002).

Concomitantly, an increasing trend of men's outmigration is widely observed in the rural communities in Mid-hills of Nepal (CBS 2001; KC 2004). Existing studies indicate that men's outmigration can lead to changes in social relations, affecting women (Hadi 1999; Hadi 2001; Kaspar 2006). Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper presents an exploratory research that analyzes the effect of changing modes of women's participation. Specifically, this paper explores the research question: In what ways does men's outmigration affect women's participation in the management of the community forest?

Data were collected using focus group discussions, individual interviews and participant observation from two community forest user groups in Kavre district. The main issues discussed were the factors that allowed or prevented women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in community forest management. Furthermore, informal discussions with men were conducted to assess their perception of women's involvement in community forest management. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the community forest user groups.

The findings point out that women's active participation in community forestry are brought forth by a variety of factors, including men's outmigration. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. through being involved in a savings group – or participation in a women's rights programme, increases the women's confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men's support, women are willing to take on new challenges and seize the opportunities that can arise from men's outmigration. The extent to which left-behind women become actively engaged in community forest management seems to depend to a large part on whether they are in a nuclear family and whether they are unsatisfied with the information about

the community forest they get from their social networks. Moreover, women's active participation in community forest management led to increased forest protection, improved forest regeneration and well-regulated supply of forest products.

This paper adds to the current literature of participation by explaining how different factors can affect women's increasing participation in community forest management. While these findings are consistent with the earlier studies (Kabeer 2001; Agarwal 2001a,b; Buchy and Subba 2003; Agarwal 2009), one of the important contributions of this paper is to point out that socio-cultural contexts are not static. Rather they undergo continuous negotiations and adaptations under different influences. Men's outmigration is one of the factors potentially affecting women's participation in the public sphere of community forest management. This paper proposes the need of further research to identify the different circumstances that can arise due to men's outmigration in a social setting, and the resulting impact in women's participation in community forest management.

5.3 Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?

The paper has been submitted to the *Scandinavian Journal of Forest Research*.

The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (CBS 2001; NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies like Nepal where men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. Empirical evidence also suggests that the wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions (Giri et al. 2008). This paper thus addresses the following question: What factors affect the extent to which women participate in the management of the community forest during men's outmigration?

Data were collected using a questionnaire survey, in-depth interviews and focus group discussions with women from two CFUGs in Ramechhap district. The questionnaire survey was conducted with women and included questions on women's participation in silvicultural activities, attendance at assemblies, whether the women voiced their views

at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. At a later stage of data collection, to better understand how husband's outmigration affected their wives, in-depth interviews with left-behind women were conducted to elicit the personal experiences in coping with their husband's outmigration.

This paper statistically tests whether men's outmigration provides a 'window of opportunity' to increase women's participation in community forest management. The significance of different factors on women's participation during men's outmigration was tested using Chi-square tests as well as an ordered logit regression. Additional insights were derived from interviews and group discussions.

The findings indicate that men's outmigration can open a 'window of opportunity' for women to actively participate in community forest management. Left-behind women were significantly more likely to attend general assemblies and voice their opinions during the assemblies, compared to women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring of social roles and responsibilities both within households and within community institutions (Zacharia and Ranjan 2001; Karki and Bhattarai 2004). However, the extent to which outmigration represents an opportunity depends on family type (extended or nuclear) and composition (presence of adult men or older women).

Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions. These findings are consistent with the earlier studies (Hadi 2001; Kaspar 2006). Moreover, this study extends the previous research on migration for its investigation on women's changed roles in public sphere of community forestry.

The other contribution of this paper is its illustration of the interplay of changing social context (men's outmigration) with the internal and external institutions, and its impact on women's participation in community forest management. Due to the widespread outmigration of men, the internal institutions (such as men members of executive committee) can display a higher level of understanding that adjustments need to be made and thus, may be more willing to accept untraditional behaviour by left-behind women. This acceptance can be reinforced by the constant pressure provided by external institutions (such as Department of Forest, I/NGOs) to include women in community forest management. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling women to engage in the public sphere of community forest management. Also,

this paper confirms to the need of supportive policy measures to sustain the positive change with progressive redefinition of social structures and norms.

5.4 Paper IV - Nepali women using community forestry as a platform for social change

The paper has been submitted to the journal *Society & Natural Resources*.

The paper has been through the first review and the editor has indicated that it would be accepted for publication after revision. A revised version has been resubmitted.

Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups. These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active participation in the decision-making mechanisms within the community forest user group (Agarwal 2001a,b; Lama and Buchy 2002). While these studies focus on exclusionary structures to explain how and why women are marginalized in community forest management, this paper focus on social change processes, i.e. whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. This paper focuses on addressing following research question: How do women shape their social role in the public sphere so as to increase their participation in community forest management?

This paper draws on data gathered from two community forest user groups in Ramechhap district, using a mix of quantitative and qualitative methods. Face-to-face questionnaire survey was conducted to assess women's understanding of the operational plan or the roles and responsibilities of the users as well as to analyze the extent to which women were consulted and whether women attend meetings and speak up their concerns. The survey included a range of questions regarding the respondent's. Later, in-depth interviews were solicited to obtain the subjective views of the respondent's experiences, attitudes, achievements and challenges regarding her participation in community forestry. Furthermore, focus group discussions were held to elicit women's collective perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and the strategies women use to tackle these challenges. Data were analyzed using a content analysis approach (Berg 2009) within the theoretical construct of gender as a process (Nightingale 2006).

The findings indicate that women held spurious perceptions about the organization of community forestry and they were not fully aware of their rights in decision-making processes. They also perceived themselves unqualified to become the members of

executive committee. These findings are consistent with the previous studies (Agarwal 2001a,b; Lama and Buchy 2002).

However, this study departs from the previous studies in approaching women as agents of change instead of passive recipients of discriminating structures. It suggests different ways through which women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. Evidence of the processes of change can be found in incidents that might seem minor, but through the subtle microsocial acts, women contest the dominant social norms, experiment with alternative behaviours and increasingly assert their rights. Thus, this paper provides an enhanced understanding of women's agency, elucidated the social dynamics behind the formalities, and of the role of gender in community participation.

This paper also proposes that to gain such an understanding, there is a need to understand participation as a process related outcome and not a outcome-orientated initiative that can be captured in a snap-shot approach. Women's participation in public settings offered by community forest management is a new situation, where both men and women are unsure what to make of this new situation, what meaning it has and how it will be used by various parties. The situation is thus contested, being seen by some as an opportunity to experiment with a new situation while it is opposed by others. This ambivalence will involve a process of trial and error, of success and setbacks. Therefore, a nuanced approach to data allows to spot both the achievements and challenges for women's participation. This is crucial to capture the experimentation process, by identifying, supporting and/or rectifying approaches that could lead to transformative participation and equity in decision-making.

Additionally, this paper suggests the need of employing a careful mix of research methods to capture the complex dynamics of women's participation in community forestry. Whilst the results from the survey signalled to women's exclusion in community forestry, women's perceptions as voiced in the interviews and group discussions modify this interpretation towards women as agents of change. Likewise, this paper contributes to identifying and suggesting qualitative indicators (such as change in perceptions, changes in acceptance level by community etc.) to assess change in women's participation in community forest management, along with more-commonly used quantitative indicators.

6 Discussion and perspectives

6.1 Summary of the present dissertation

Women's inclusion and influence in participatory programmes like community forestry is considered indispensable to enhance both ecological and social sustainability in Nepal. Previous studies have identified a range of formal structures and processes that exclude women's participation (Agarwal 2001a; Buchy and Subba 2003). However, these studies do not provide a complete picture of the situation for two reasons.

Firstly, the social contexts where rural communities live tend to be portrayed as static in previous studies (Mohanty 1998; Gururani 2002b). However, rural communities particularly in Nepal, live in a state of flux, often characterized by unruly markets (Sugden 2009), instable politics (Taras 2006) and changing demography (CBS 2001; NIDS 2007). Previous studies have not been sufficiently attentive to the changing social context of rural communities and its associated impact on their participation in community forest management. In exploring the changing social context of rural communities in Nepal, the present dissertation focused on the effects of men's outmigration on women's participation in community forest management.

Secondly, when examining the structures/processes that affect women's participation in community forest management, previous research has particularly focused on women's position and roles within formal institutions. Thus, any dynamics of negotiation, contestation, and resistance beyond the formalized settings have been ignored. Using gender as a process (Nightingale 2006) involving reiterative interactions between agency and structure, this thesis investigated how women during men's outmigration can exercise their influences in community forest management, while being conditioned by structures. Thus, this thesis provides valuable insights on the conditions/processes that can lead to increasing women's participation in community forest.

Both exploratory and explanatory approach was used to understand the dynamics of men's outmigration on women's participation in community forest management. Data were collected and analyzed using different qualitative and quantitative methods. This mix of approaches and methods ensured obtaining valid and reliable results.

Based on the results from paper I-IV, the following conclusions are drawn:

- Men's outmigration can provide opportunities for women's participation in community forest management. However, the extent to which women take such opportunity is mediated by various factors.
- Women can exercise agency despite structures limiting their participation in community forest management.
- Participation is to be understood as an adaptive process of governance and learning, and not a hurried outcome limited to easily-measured outcomes.

These conclusions are used to broaden the discussion of women's participation in community forest management through potential implications. By emphasizing the multidimensionality of women's participation, this dissertation advocates the importance of applying various approaches and tools to conceptualizing and measuring participation. It also emphasizes the crucial role that formal and informal institutions play in women's participation and sketch out theoretical nuances and methods of examining such institutions.

6.2 Theoretical implications

The findings of this study provide a robust case indicating that a range of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. Combining different theories is important because many of the observed outcomes in this thesis could be un- or undervalued or stereotyped, if were analyzed from a single theory.

Feminist/eco-feminist theories argue for positioning and strengthening of 'women-agenda' into development programmes given to the richness of women's knowledge and close association to nature (Shiva 1989; Sargission 2001; Shantz 2002; Rogers and Shutten 2004). They thus often argue to incorporate women-agenda by proposing some change in structural measures such as representational quota etc. As the paper I states, the community forestry policies in Nepal have been continually adapted, if investigated in this direction. Women's knowledge and role in forest management have been well-identified by labelling women as the "primary users of forest". Furthermore the expected share of women in decision-making bodies has been raised. Other measures such as including both male and female's name as the representative head of households in the forest constitution have also been implemented.

Such representational measures can be thought as a starting point to address the persisting disproportionate representation and structural inequalities between men and women in community forestry institutions. Indeed, as the Feminist theories propound, this need of incorporating women's issues can provide an entry point to recognize and secure women's right to spaces of decision-making in community forest management. This push from feminist standpoint is important particularly for the present context of rural Nepal, where structural spaces between men and women are perceived to be different and are often imbued with "common-sense" power relations (paper IV). Indeed, such common-sense is taken for granted and thus the fundamental premises or ideology on which these seemingly common power relations are based are rarely questioned (Arora-Jonsson 2008b).

To provide a sense of alternatives, it is necessary to have spaces that give the possibility to view the relations in a different setting. Particularly in the case of forest management where forest decisions directly affect women (Tinker 1994; Agarwal 2009), providing women's entry into decision-making forums, can surely indicate an alternative

sphere that gives possibility to address their concerns and influence decision-making. Paper II documents that the effective forest management under women's leadership earned them respect and a sense of their own capability, which they lacked before. Paper IV also confirms that women, while experimenting with the alternative sphere of decision-making (provided by community forestry) can add to new knowledge and learning process that can also break the commonly assumed behaviours and mould new expectations. In a series of such subtle changes, women might then be able to increase their influence in the decisions governing the management of the community forest. Empirical studies at other parts of globe have also identified the effectiveness of such measures to build up a critical mass of women (Tinker 2004; Stockemer 2007; Kudva and Mishra 2008; Jones 2009).

Thus, before adopting a theoretical stance of feminist/eco-feminist theories, a cautious check about its assumptions and whether those assumptions fit to the research context is required. Despite women being the agenda of most (eco)-feminist studies, the very rationale that feminism started to counteract the dominant and discriminating ("androcentric") viewpoints should not be forgotten. Thus, the underlying principle of feminism is not men against women, but the differential power relations between men and women that led to discriminatory outcomes (Chafetz, 2006). In the pursuit of working against women's discrimination by men, feminist theories need to decode the social system, unravel the common-sense and analyze the power relations that lead to discrimination (Mohanty 1998; Gururani 2002b; Arora-Jonsson 2008b). Thus, it might be too simplistic and fallible to assume that all women are similar and that they are always discriminated to men without a proper analysis of the social context where discrimination takes place. Also, the extent to which a token of women representatives are expected to unanimously bring in all woman diversities, always work for the benefit of other women and never discriminate against women is questionable.

The findings of paper II, III and IV illustrate this complexity where women as a unified category face similar challenges in forest management and yet, the extent of challenges within women can vary due to several factors. In particular, paper III identifies household type, presence of in-laws as the major factors that can vary the extent of left-behind women's participation in community forest management. Previous studies have also indicated that women's knowledge and participation in forest management is contingent on different factors, such as class, caste, position in a family (Agrawal 1994; Jeffery et al. 1998; Shrestha 1999; Chhetri 2001; Gupte 2004).

There is thus a need to unravel the differential power relations that discriminate between men and women and within women, while they participate in community forest management. Gender theories can illustrate this phenomenon by analyzing the social (power) practices that turns male into men and female into women and discriminates between them (Burely, 2001). Indeed, it is important to decode both, the power performances (Butler 1990; Epstein 2006; Naples 2009) and the social context (Mohanty 1998; Gururani 2002) to better grasp the power relations between men and

women. Once gender is reconceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. In particular, paper III illustrates the changing social context due to a large share of men outmigrating and the resulting effect on women's participation in community forest management.

While gender theories highlight the importance of power relations between men and women in everyday practices, these do not fully embrace how human actions involve persisting (and changing) patterns of power relations. Thus, the theories relating agency and structure (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Callinicos 2004) were combined with gender theories to better understand the nature and use of power by women in community forest management.

Using an agency perspective alone may hinder the discrimination that women can face in community forest management. Likewise, relying on a structural perspective alone may mask the potential that women can exercise in influencing community forest decisions. The dual interaction between agency and structure helped to capture the complete dynamics associated with women's participation in community forest management. On one hand, paper II and III support the interplay of structures in regulating agency. Paper IV, on the other hand, confirms the multifaceted relationships through which women exercise their agency and modulate structures.

In short, to address women's participation in community forest management, this thesis points the need to understand and decode the underlying assumptions of each theory. A combination of theories used in this thesis illustrated the inter-linkages that were observed to exist between agency and structure, but only when gender is conceptualized as dynamic and not static. Thus, a logical suggestion is that analyzing women's participation in natural resource management could be enhanced if theory incorporated (and also valued) the full breadth and depth of mechanisms and processes associated with women's participation.

6.3 Methodological implications

There exists a widespread dichotomy between quantitative and qualitative methods in social research. This dichotomy is often reflected in terms of oppositions such as "quantity versus quality", "objective versus subjective", "hard versus soft science", "products versus process" (Brecher 1999; Neuman 2006; Berg 2009). However, there is a growing recognition that such sharp dichotomies between qualitative and quantitative methods is fuzzy (Ravallion 2005) and that research studies benefit from a judicious mix of both methods (Kanbur 2003; Kelle and Erzberger 2004).

Previous studies investigating women's participation in natural resource management are either qualitative (Agarwal 1992; Lama and Buchy 2001; Buchy and Subba 2003) or quantitative (Ahmed and Laarman 2000; Atmis 2007) in nature. Rather than seeking to rely on only one method to collect data, this thesis designed a mix of qualitative and

quantitative methods to identify and analyze the full spectrum of complexity associated with women's participation in community forest management. Different methods such as questionnaires survey, in-depth interviews, focus group discussions, participant observations etc. were used to collect data. The question of the relative strengths and weaknesses of questionnaire-based surveys and qualitative methods has been the focus of much interest by both researchers and practitioners (Kanbur 2003; Zeller et al. 2006; Kanbur and Shaffer 2007). Deploying a mix of methods helped to complement the lack inherent in each method and also to validate the results (White 2002; Kelle and Erzberger 2004).

The use of a survey allowed to identify the influence of multiple factors affecting women's participation. While identifying different factors that can affect women's participation in a given time and space is important, it does not fully account of the endogenous process of change taking place. Qualitative methods such as in-depth interviews, interviews, focus groups, participant observation complemented this lack by linking subjective understandings to statistical associations and thus revealing the unseen social dynamics.

In-depth interviews and participant observation were particularly helpful to examine and interpret social processes beyond formal institution and every day lives (Thompson and Barrett 1997). Examining women's everyday lives was important in our case because men's and women's spheres of work (Chhetri 2001), networks of information (Lama and Buchy 2002) and spheres of influence (Banjade and Ojha 2005) can be different in rural parts of Nepal. Use of this method helped to obtain subjective perceptions, negotiating mechanisms, the role of institutions and power relations with which individual women tend to participate in community forest management.

While subjective perceptions of individual women were elucidated using in-depth interviews, how women as a group influence the power dynamics at community forestry is important to understand what has been gained and what is yet to overcome regarding women's participation. Focus group discussions identified the similarities and differences in perceptions, feelings, attitudes and ideas that women have. Moreover, focus groups were also used as a platform to discuss the initial results obtained from quantitative and qualitative survey with the women participants. This interaction provided the women an opportunity to validate the results keeping the ethical standards that these women have the greatest likelihood of benefiting or being harmed by the participatory approaches like community forestry.

As this thesis demonstrates, a carefully designed mix of quantitative and qualitative methods can reveal unexplored dimensions and enrich the investigation. Thus, this thesis tries to draw attention away from the traditional "one-sided" measures of results and highlight the need for a more comprehensive analysis. The mix of methods employed in this thesis may provide a guiding frame to investigate multi-faceted research issues, not only limited to women's participation in community forest management.

6.4 Policy and Management implications

6.5 Policy and Management implications

There has been a fundamental shift over the last decade in approaches to forestry and conservation with the recognition for the active participation of local communities in all aspects of project design and implementation (Chakraborty 2001; Balooni and Inoue 2007). With an increasingly important role of providing ecological and economic benefits (Sinden and Griffith 2007; Fleming and Fleming 2009; Dhakal and Masuda 2009) and promising democratic rights (Pokharel 2005; Meynen and Doornbos 2004; Fleeger and Becker 2008), participatory approaches of natural resource management such as community forestry will continue to be an important approach of participatory management in Nepal. Moreover, the contribution of women, as a distinct social group in the forest sector, has been internationally recognized and the need for attention to gender equity in participatory programmes is stressed (Agarwal 2000; Ahmed and Laarman 2000; Cornwall 2003; Upadhyay 2005). Nevertheless, existing social inequities and discriminating power relations are reported to pose strong challenges to women's participation (Agarwal 2001a,b; Gupte 2004). This thesis offers valuable insights into these challenges and provide a dynamic approach for successful policy and practice of participatory programmes.

More specifically, this thesis examines the interaction of changing social context with existing institutions and also decode the conceptual foundations of women's participation within community forestry frameworks to suggest additional perspectives that might enhance women's participation.

6.5.1 Dynamic social context and changing power relations

Participatory approaches champion the role of community in bringing about decentralization, meaningful participation, and conservation (Pokharel 2004; Meynen and Doornbos 2004; McDermott 2009). As paper I describes, the poor conservation outcomes that followed decades of intrusive resource management strategies and planned development in Nepal have forced policy makers and scholars to reconsider the role of community in resource use and conservation. The community has been the core social planning unit in community forest management. The inherent conception of community as a small spatial unit, a homogeneous social structure, and as shared norms has been critiqued lately (Agrawal and Gibson 1999; Lama and Buchy 2002; Gupte 2004; Colfer 2004). These critiques also applied to an institutional approach (Agrawal and Gibson 1999) which they claim focuses on the multiple interests and actors within communities, on how these actors influence decision-making, and on the internal and external institutions that shape the decision-making process. A growing body of literature has documented different institutional processes and mechanisms that can affect the extent of participatory inclusion (Agarwal 2001b; Lama and Buchy 2002; Gupte 2004; Dahal and Capistrano 2006; Ojha et al. 2009) and benefit sharing (Maskey

et al. 2006; Dhakal and Masuda 2009). While these studies focus on how discriminatory practices are historically created and influenced by asymmetries of power and special interests, it is less obvious how they further an understanding of the way in which wider social processes such as migration interact with existing institutions and influence power relations. This study extends further by investigating the general settings in which institutions are embedded and concludes that they are dynamic and can change power relations within institutions.

Paper II and III, describe the changes in social context that affected women's power and participation in community forest management. As paper III elaborates, men's outmigration triggered a set of new needs for the left-behind women and the society that eventually helped to mould institutions and increase women's participation in community forest management. The large differences in participation between women with husbands at home and women with migrated husband draw attention to the broader contextual influences led forth by men's outmigration on women's participation and deliberations, beyond unique local and institutional community influences. These findings confirm that the general setting in which social actors are embedded are liable to change by wider processes (such as men's outmigration in this study) and that can possibly trigger situations leading to creative adaptation and change (Alvesson and Sköldberg 2000).

There is an urgent need within community forestry programme to identify these creative changes taking place in communities and provide institutional and legal support to complement positive and deter negative changes. This requires an understanding of the contextual influences within community forestry user groups, an identification of the major driving processes at a given time, and an analysis of the effect on power relations and social action. Not only is an awareness of context important in understanding the nature and magnitude of changing power relations, but it should also inform the (re-)design of participatory practices (Boyle 1998 in Cashmore et al. 2007). Contextual influences when combined with external, tangible but potential pressures can become conscious influences on peoples' participation and deliberation in participatory programmes (Robson and Kant 2009). Thus, supportive legal measures in community forestry programme should be provided to sustain the innovative practices.

Indeed, as Martello and Jasanoff (2004) observe, it is no coincidence that the implementation of the global environmental participatory agenda has remarkably rapidly led to a rediscovery of the local. Thus, having an understanding of the local contexts and their impacts on participatory policies is a development inherently required by the concept of participatory programmes, like community forestry and, hence, long overdue.

6.5.2 Participation as an adaptive governance process

Forest management in Nepal represents a continually evolving participatory programme where management and use rights to local groups have dramatically expanded, with a clear recognition that women's participation in community forest management is

essential and important (Lama and Buchy 2002; Upadhyay 2005). Paper I, in particular, illustrates the trajectory of forest management and indicates change in ecological, economic and social dimensions. Important in the change process is to recognize the type of expected change, the processes used to ascertain and measure the change, and the exerting (power) influences behind the change process, as the paper IV points out.

In pursuit of increasing women's participation in community forestry, it is important not to neglect the qualitative aspect of women's participation. In order to look beyond quantitative expansion (number of women only committee, number and position of women in executive committee, number of women attending general assembly etc.), focus on the qualitative aspect of women's participation is necessary. Adopting gender-friendly policies and programmes should go hand-in-hand with similar developments in communities as a whole. In the current situation, it seems that if women's participation in community forestry is to be sustained, it needs to reflect upon the mechanisms and contexts through which participation of some or all women is enhanced or hampered. As the paper IV argues, a participatory policy is thus needed to broaden the understanding of "change" resulting with women's participation. This necessarily requires a shift to understanding the underlying process, a more nuance approach through which change is measured, rather than limiting itself to statistical data. When participation is understood as a transformative process, it requires both: the requirement of a representative share and the changes in discriminatory values and culture.

To understand the changes in values and culture due to participation in community forest management, the perspectives and mechanisms using which women participate in forest management should be well understood. The majority of natural resource including forest governance studies point to the prevalence of structures in affecting women's participation (e.g., Lama and Buchy 2002; Gupte 2004) with few exceptions (Nightingale 2006; Arora-Jonsson 2008b) While these factors are important, the findings of this dissertation signal to the need of exploring women's agency to better capture the perception changes and mechanisms associated with women's participation, rather than attempt to apply structural perspectives alone. It is important to know how and where internal change takes place, just as it is important to know how discrimination takes place. An agency perspective on women's participation can aptly signal to the recurring practices of negotiation, contestation, resistance, reproduction etc. that women tend to use. This implies that women participating in community forest management are to be understood as adaptive decision makers who are shaped by social structures and also creative beings that construct meanings and social structures. When approached in this manner, a better insight of the undergoing social process can be offered, which involves providing an actor-centred schematic that is dynamic but also situated within institutional and cultural contexts.

This perspective can also enhance the participation process by incorporating the dynamic web of power relationships beyond formal setting (such as executive

committee, general assembly, official meetings etc.). Social processes beyond formal institutions and practices may seem little to do with formal procedure of women's participation and thus, often neglected. Paradoxically, the formal institutional analysis often fails to grasp and respond to crafting different mechanisms that addresses tensions between formal and informal practices while seeking to promote women's participation. Paper IV documents women's underlying tensions and approaches in both formal and informal settings. In addition to women's entry and interactions in formal structures, this paper points the need to uncover the often hidden exchanges of interactions and logic and the extent to which such interactions and logic impact formal deliberations (Scott 1990, Wilshusen 2009), independent of whether they occur in the informal or the formal settings. Thus, this type of analytical perspective is helpful to locate how diverse social practices with different logics may be in play, producing largely invisible tensions that can have significant impacts on participatory policy and practice.

Thus, if policy makers and researchers want to empower women through their participation in community forestry and other participatory programmes, they must determine what women at communities perceive as relevant factors (supporting and constraining factors for participation) for change and how do women approach to these factors. Women may have their own reasons for social actions and researchers as well as practitioners involved in participatory programmes need to learn the reasons women have. Indeed, identifying these answers can help to better understand the power play, the processes through which power positions gets shifted, deconstructed and also reproduced in community forest management. People create society, society creates people, who in turn create society, is a continuous process (Newman 2006:97). Important in this process is to identify reproducing patterns of discrimination and to deter them using different legal measures.

Given the multiplicity of institutions and plurality of mechanisms associated with women's participation, a single uniform strategy, almost certainly cannot increase women's participation. When participation is understood as a reflexive and adaptive governance process, the associated dynamics of agency and structure in both formal and everyday practices can be captured. The positive change can be used to strengthen the learning process while resistances can be tackled using innovative strategies. Women's participation in community forest management, thus, has to be a socially just change process that is both reflexive and adaptive to the changing social context and is transformative against discriminatory power relations. The chances of women's participation in community forest management will be far greater if policy framing and implementation takes these considerations into account.

6.6 Perspectives for future research

This study used case study approach and employed a mix of methods to obtain results. This research provides comprehensive, empirical insight into the effects of men's

outmigration and women's participation. However, the results must be interpreted within the context of certain methodological limitations: the empirical data are derived from one case study in one institutional context (Nepal) and relate to the participation of women in one type of programme (community forestry) at a certain relational context (Mid-hills, high rate of men outmigrating, forest-dependent communities). These outcomes are thus dependent on the institutional, legal, and socio-political context which needs to be taken into account when inferring comparable conclusions.

The present study offers several important research directions for further studies. Men's outmigration is an increasingly dominant activity in many developing countries including Nepal. Because this study examined the effects of men's outmigration on women's participation while controlling ethnic composition, economic status and forest dependency, further study can investigate the influence of these variables on the effects of men's outmigration. Likewise, the process through which men's outmigration can lead to a process of social transformation to empower women through an active engagement with community forestry need to be investigated. While this study was limited to understand the effects of men's outmigration in women's participation in forestry, further empirical study using the framework of the study can be used to analyze women's participation in agriculture, health, climate change etc.

In addition, using the methodological framework of the present study, more research on understanding how women's agency interacts amidst limiting structure in other participatory programmes can be of interest. Likewise, research to develop extensive qualitative indicators to measure the extent of women's participation in participatory programmes is also required. Moreover, further research need to decode the assumption of women as a 'unified mass' in participatory programmes and analyze the intersections of discrimination that can vary across different types of women (such as class, caste, education etc.).

7 References

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PART B: PAPERS

Paper I

Development and status of community forestry governance in Nepal

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Development and status of community forestry governance in Nepal

Abstract

Nepal has increasingly gained world-wide recognition in participatory forest management, primarily through “community forestry” programme. This paper sketches trajectory of forest management policies and practices in Nepal and analyzes achievements and pitfalls associated with community forestry. The focus is on analyzing the relations amidst good forest governance, sustainable livelihoods and forest conservation. Our analysis indicates that community forestry programme has been successful to meet the twined goals of forest conservation and socioeconomic transformation through power devolution, participation and good governance. Encouraged with such achievements, Nepal has envisioned attaining the national goals of poverty alleviation and the global goals of Sustainable Development by strengthening good forest governance, sustainable forest management, and livelihood improvement. Though, there are adequate challenges, mostly socio-economically, community forestry has been a ‘Learning platform’ that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

Keywords: forest management, good governance, livelihood, community forest user groups, Nepal

Introduction

Nepal is a landlocked Himalayan country situated between India and China. Nepalese Himalaya has ten out of the world's 14 peaks over 8,000m, 127 peaks over 7,000m and other 1,311 smaller peaks over 6,000m (Pandey 1995). Geographically, mountains, which are the least productive area, cover 35.2%, whereas mid hill occupies 41.7% and the most productive flat land of Terai, which has an elevation less than 300m, occupies 23.1% (MFSC 2002). Based on land use classification, Nepal constitutes 29% of forest, 10.6% of scrubland and degraded forest, 12% of grassland, 21% of farmland, and the rest 7% of uncultivated lands (LRMP 1986). Deforestation was major challenge before the 1990s. It has been reported that between 1978/79 and 1990/91 forest cover decreased at an average annual rate of 1.7% (1.3% in the Terai and 2.3% in the Mid-hills) and scrublands decreased at an annual rate of 0.5% (DFRS 1998).

Similarly, land use practices are more intensive than its potentiality as per soil capability classification. For example, only 4.1% is suitable for grazing whereas at least 22.8 % is being utilized for grazing (LRMP 1986). Nepal has abundant fresh water river systems,

with the flow of approximately 200 billion cubic meters per second, which have potentiality of generating 45,000MW hydroelectricity. It is endowed with plethora of biodiversity because of its unique location in the transition of Eastern and Western Himalayas; and between Palaearctic and the Indo-Malayan bio-geographical realms. The country, which occupies only 0.03% of the World's terrestrial mass, exhibits the following share of global biodiversity: 5.1% bryophytes (Mizutani et al 1995; Furuki and Higuchi 1995); 3.4% pteridophytes (Iwatsuki 1988); 5.1% gymnosperms, 2.7% angiosperms (Koba et al. 1994, Akiyama et al. 19982); 2.6% butterflies (Smith 1994); 1% fishes (Shrestha 2001); 1% amphibians (Shah 1995); 1.6% reptiles (Shah 1995); 9.3% birds (Grimmet et al. 2000); and 4.5% mammals (Suwal and Verheugt 1995). Diversity of forest is also very high due to climatic and altitudinal variations. Stainton (1972) classified Nepal's forest into 35 different types. Among them, ten major forest types with some common species are presented in below (Table1).

Table 1: Diverse forest types and common forest species in Nepal

SN	Type of Forest	Altitudinal Range	Common Species
1	Tropical forest	below 1,000m	<i>Shorea robusta</i> ; <i>Acacia catechu</i> , <i>Dalbergia sissoo</i> , <i>Michelia champaca</i> <i>Bombax ceiba</i> <i>Terminalia/Anogeiss</i>
2	Subtropical broad-leaved forest	1,000-2,000m	<i>Schima wallichii</i> / <i>Castanopsis indica</i> , <i>Cedrela/Albizia</i> , <i>Alnus nepalensis</i>
3	Subtropical pine forest	1,000-2,200m	<i>Pinus roxburghii</i> (South aspect in Central and Western Nepal)
4	Lower temperate broad-leaved forest	2,000-2,700m in the west and 1,700-2,400m in the east.	<i>Alnus nitida</i> , <i>Castanopsis tribuloides</i> / <i>C. hystrix</i> , <i>Lithocarpus pachyphylla</i> , <i>Quercus leucotrichophora</i> / <i>Q. lanuginosa</i> forests and <i>Q. floribunda</i> , <i>Q. lamellosa</i> , <i>Lithocarpus pachyphylla</i>
5	Lower temperate mixed broad-leaved forest	1,700-2,200m	Species of Lauraceae family.
6	Upper temperate broad-leaved forest	2,200-3,000m	<i>Quercus semecarpifolia</i>
7	Upper temperate mixed broad-leaved forest	2,500-3,500m	<i>Acer spp</i> , <i>Rhododendron spp</i> , <i>Aesculus spp</i> , <i>Juglans spp</i>
8	Temperate coniferous forest	2,000-3,000m	<i>Pinus wallichiana</i> , <i>Cedrus deodara</i> , <i>Cupressus torulosa</i> , <i>Tsuga dumosa</i> and <i>Abies pindrow</i> , <i>Picea smithiana</i> , <i>Juniperus indica</i>
9	Sub-alpine forest	3,000-4,100m	<i>Abies spectabilis</i> , <i>Betula utilis</i> , and <i>Rhododendron</i> Species
10	Alpine scrub	above 4,100m	<i>Juniperus recurva</i> , <i>J. indica</i> , <i>J. communis</i> , <i>Rhododendron anthopogon</i> , <i>R. lepidotum</i> , <i>Ephedra gerardiana</i> , <i>Hippophae tibetana</i> , <i>Caragana versicolor</i> , <i>Lonicera pinosa</i> , <i>Rosa sericea</i> and <i>Sophora moocroftiana</i> ,

History of Forest management and evolution of community forestry

In Nepal, forest policy has been developed and practiced primarily in response to the negative consequences of preceding policies (Pokharel et al. 2005). Therefore, there are different stages with varying modes of the forest ownership and management schemes. Hobley and Malla (1996) have classified Nepal's forest management history into three important periods, namely privatization (1768-1951); nationalization (1951-1978) and populism (1978 onward).

Privatization (1768-1951)

Prior to 1950s, forest was managed in traditional indigenous ways. Historically, the Nepalese feudal states used forest primarily for securing revenue and bolstering its military strength (Guthman 1997). From the sixteenth century to the nineteenth century, the state encouraged hill forest to convert into agricultural land to increase land tax, and protected Terai forest for the military protection of the country against expanding British India Company (Blaikie et al. 1980; Mahat et al. 1986; Blaikie and Brookfield 1987; Ives and Messerli 1989). After 1846, forests were handed over to local elites in various forms such as birta, talukdar, kipta, guthi, and jagir (salary) for serving the government. The forests were in control of those elites and were then inherited within the family. In 1907, an official document (lalmohr) provided guideline for such system (Hobley and Malla 1996).

In lalmohr, according to Adhikari (1990), people were required to ask elite (talukdar) had they required timber, and talukdar was required to ask people had he required timber. Local people had free access to the forest for limited commercial value of fuelwood, fodders, and medicinal herbs (Hobley and Malla 1996); but they used to get timber by doing labor or other forms of gifts and services to those elites. Forest watchers were hired and paid in kind by villagers for the protection of forest from unruly activities. Forest as an integrated constituent of the farming system (farm, forestry and livestock), people were managing the forest since a long ago (Arnold and Campbell 1986; Gilmour and Fisher 1991; Messerschmidt 1993). As Swallow and Bromley (1992) stated suitable informal rules practiced through generation yields "governance without government", the forest condition was very good despite the absence of appropriate forest laws to manage national forests until 1951 (Mahat et al. 1986).

Nationalization (1951-1978)

During the 1950s, the global paradigm of development was based on Industrial development model with top down approach. Renowned economists advocated that the benefits of the industrial development trickle down to local people and country could achieve economic prosperity (Gilmer and Fisher 1991). Influenced with it, Nepal realized that the forest is important source of revenue which can be channelized for the industrial

revolution of the country. Moreover, forest based industry itself could contribute to the great extent for the economic development. But the large parcels of the forest were privately owned and were controlled by few local elites. According to Regmi (1978), at least one third of the total forest was under Birta (privately owned) and three quarters of the land belonged to Rana Family, the ruler of the country before democracy. So, through the Forest Nationalization Act (1957), Nepal nationalized all forest of the country (Gilmour and Fisher 1991).

Though the hidden intention of the nationalization was to resume the control over privately owned forest, local people interpreted the legislative action as “taking forest away from the people” (Fisher 1999). Irrespective of the purpose, it was not followed by effective mechanism of control and management. As the result of people perception and to preserve the property right of ownership, forest holders began to convert forest into agriculture. Thus, the nationalization led to massive deforestation primarily for converting the forest land to other land uses so that the criteria of being national forest are escaped (Schulte and Sah 2000). The Department of Forest neither was able to manage the forest effectively nor was able to control the deforestation, despite of having strong legal backing.

Considering this phenomenon as the result of insufficient legal support, forest officials were given more authority for protecting the forest through Forest Act of 1961 and the Forest Protection (Special Arrangement) Act of 1967. Though the forest was nationalized and officials were made highly powerful, forest deforestation continued and management endeavours from government were unable to control (Wallace 1981). Eventually, forest nationalization converted the limited access people controlled forest to open access common property resources (Hobley 1985; Ostrom 1990; Messerschmidt 1993). According to Agrawal and Ostrom (1990) ignorance of existing local forest management system and absence of effective management and monitoring system of the government led the widespread deforestation.

The fate of common property resource is predicted by two authors contradictory to each other. In “An Inquiry into the Nature and Causes of the Wealth of Nations”, Smith (1776) popularized the idea of invisible hand which states when rational individual act beyond self interest with regard of others, the output of common resources maximizes. Though the notion is amazing, to what extent it is pragmatic is questionable (Ellerbrock et al. 2008). On the other hand, according to Hardin’s Tragedy of Commons (Hardin 1968), when the resource has unlimited open access, each rational individual is irresistibly tempted to maximize his gain as the benefit remains fully with him and negative effect of the decision is only a fraction as that equally affects to other individuals. Thus, each individual rush for the maximum benefits that ultimately ruins the common resource (Hardin 1968). Common resource gives a feeling that if I do not use the last unit, someone else will do. As of Costanza (1991), the activities are individually rational but collectively undesirable. In addition to inherent complexity of common resources: excludability and subtractability (Feeny et al. 1990); the situation of ‘everybody’s

responsibility is nobody's responsibility', very usual in common property resources, emerges and resource retrogression exacerbates (Lomborg 2001).

Out of these two contrasting ideas, forest in Nepal suffered through the Hardin's Tragedy of Commons. Sanera and Shaw (1996) argued that the cause of Tragedy of Commons is due to the lack of ownership and property rights. After nationalization, increased demand of the forest product due to rapid population growth, massive deforestation and conversion to agricultural land through terracing in the steep Mid-hills resulted high soil erosion, landslide in the Mid-hills and floods, siltation in the lower plains (Guthman 1997). Adoption of animal dung as a response of dwindling fuelwood supply contributed decreased productivity in the farm, which required more farm land to meet the food supply consequently pushing for more deforestation (Ives and Messerli 1989). Such massive deforestation in the Himalayas was considered to be the root cause of the severe flood in the Ganges and its regional impact on agriculture in early 1970s (Myers 1986). Between 1964 and 1985 Nepal lost about 570,000 hectares of forest (HMG/N 1988).

Linking widespread deforestation and rapid population growth as the predominant cause of downstream siltation and flooding in the Ganges, Eckholm (1975) propounded the "Theory of Himalayan Environmental Degradation." After the theory, the environmental crisis of Nepalese Himalaya received international solicitation (Guthman 1997) The Munich conference on "The Development of Mountain Environment" concentrated on the deterioration of Nepalese Himalayas. Sandra Nichols in 1982 with the financial support of World Bank produced a movie: *The Fragile Mountain* (Ives 1987). This also played a vital role to draw the global attention on the associated problems of forest deterioration. The situation was highlighted by the World Bank's prediction that all the accessible forests would disappear in the Mid-hills by 1993 and in the Terai by 2003 unless immediate movement to counteract the deforestation rate was commenced (World Bank 1984). As such, this idea of ecological doom regarding Nepalese forest resource base served as a benchmark to influence and evaluate the impact of forest policies afterward.

The influence of external agent, especially the World Bank, is crucial through its financial leverage to large sectoral funding (Rowchowdhury 1994). The World Bank pressurized the government to take some immediate steps to counteract the situation. Consequently, in the ninth national forestry conference of Department of Forest in 1975, the deteriorating condition of the hill forest was rigorously discussed. The proceeding of the conference laid foundation for the national forest plan of 1976 which recognized the inability of government to protect the forest without the involvement of people (Hobley 1996). This plan took the major shift of the government policy to manage the forest. Through the national forestry plan of 1976, people's participation was recognized as a crucial aspect to counteract the challenges and was reflected in forest policies of 1978. In 1978, Nepal introduced a policy to hand over forest for the protection and management to local political administrative bodies in the form of Panchayat Forest and

Panchayat Protected Forest (Fisher 1999). In the sectoral policy of forestry, Sixth five year plan of 1981 also emphasized community involvement for the protection, management and utilization of forest. Decentralization Act (1981) further empowered local political bodies to manage the local resources including forest.

Populism (1978 onward)

Globally, concept of Community Forestry emerged and became popular partly due to the failure of industrial development model to address socio-economic development and partly, due to the increasing deforestation and degradation (Gilmour and Fisher 1991). The concept, came in vogue after Food and Agricultural Organization published a report on 'Forestry for Local Community Development' (FAO 1978), and was further consolidated by the theme of 1978 Eighth World Forestry Congress, "Forestry for People", held in Jakarta, Indonesia (Gilmour and Fisher 1991). Under these global scenarios, in the Ninth Forestry Conference held in 1978, government officials, project staffs and donor agencies evaluated the progress and shortcomings of Panchayat Forest and Panchayat Protected Forest and decided user group model of forest management. As an outcome of this workshop, Master plan for Forestry Sector (MPFS) was developed.

A Master Plan for Forestry Sector (HMG/N 1998) prepared for 21 years states: the major policy of forestry sector is to encourage community participation by giving the full responsibility of forest management. It also allocated the 47% of total budget of the Ministry of Forest for community forest and emphasized on the reorientation of foresters for the new role of facilitation, from the traditional policing to encouraging participation of local communities in forest management. The Community forestry programme, the largest component of the MPFS was explicitly designated to meet the fundamental requirement; fodder, timber and fuelwood, of people. Guided by MPFS, along with the establishment of multi-party democracy in 1990, Nepal promulgated Forest Act, 1993 (HMG 1993) and Forest Regulation, 1995 (HMG 1995).

Through the series of restructuring and reformulating policies, Forest Act 1993 and Regulation 1995, being supported by Master Plan for Forestry Sector (MPFS), legally commenced a provision that a group of people forming the community forest user group (CFUG) can get part of the national forest as community forest to manage, protect and utilize after approving the operational plan with District Forest Office. Those legislations recognized CFUG as an independent local institution for managing community forests on an equitable and sustainable basis. These legal flexibilities have made community forestry as one of the most successful programmes of Nepal (Bhattacharya and Basnyat 2003).

After having strong legal backing, community forestry got the momentum and is said to bring numerous significant effects both, in forest and socioeconomic status of people. As a result, target of community forestry programme transformed to poverty reduction and Millennium Development Goals attainment. The third national workshop on

community forestry held in 1998 projected the aim of community forestry programme beyond mere fulfilling the basic needs to achieving national goal of poverty reduction and stated four pillars –social justice, equity, gender balance and good governance to achieve the aforementioned goal. Out of eight Millennium Development Goals (MDGs) eradicate extreme poverty has received the utmost attention, and 115 nations have committed at the United Nation (2000) at reducing the level of global poverty by half until 2015. The Tenth Five year Plan has also aimed at poverty reduction (HMG/N 2002). Forestry Sector Coordination Committee has identified and stressed to focus on the second-generation issues of community forestry such as livelihood promotion, good governance and sustainable forest management to mainstream and add relevancy to the programme at the present context.

Status of community forestry

Nepal couldn't make any progress in the most of the sectors even after democracy due to instability and inability of the government and high corruption (World Bank 2001); but the community forestry programme has remained an exception. During the two decades, community forest management policies and procedures have dramatically been shifted parallel to the changing objective of forest management from fulfilment of subsistence needs to achievement of sustainable economic transformation (Giri 2005). It has been seen that given relative security of the tenure of the forest management, local communities manage the resources expecting better condition in future.

Currently, at national level, 1,640,239 households (35% of total population) are managing the 1,187,000 hectares forest (25% of total forest land) of Nepal. Until 13 Nov. 2005, total of 14,201 CFUGs (600 women only user groups) have been formed covering an area of 1184,821 hectares (average being 83.43 hectares /CFUG and 0.73 hectares /household) with the involvement of 1,633,408 (avg. 115/CFUG) households (DoF 2005). In 2002, the annual income of the Department of Forest was Nepalese Rupees (NRs.) 550 million and total budget 680 million, but the Community Forestry which is only 25% of total forest, earned about 740 million (more than US\$ 10 million) which is higher than the annual budget of the Department of Forest and is almost 42% of the annual budget of the Ministry of Forest and Soil Conservation (Kanel and Niraula 2004). This implies high efficiency of community based forest management. Inspired with the successful examples of community forestry, the fourth national workshop on community forestry in 2004 stressed its role to achieve the Millennium Development Goals through good forest governance, sustainable forest management and livelihood.

At present, hundred percent of benefits that come out of community forestry directly goes to community forest user groups and contributes in multiple aspects of the local development. The following diagram (see Fig. 1) illustrates the pattern of fund expenditure of community forestry in the national level (Kanel and Niraula 2004). As seen below, the highest priority has been in the community development activities

(36%) which include road, school, irrigation, community buildings, drinking water supply, and physical infrastructures and so on. The second most prioritized aspect is forest development activities (28%). Forest act and regulation have the mandatory provision of 25% total fund to be spent in forest management but communities are spending higher than the obligatory level which implies that local communities are much more responsible to forest development than they are thought to be. Even though, the amount spent in pro poor programmes is very low, there has been good start to address poverty reduction target of the country through forest management.

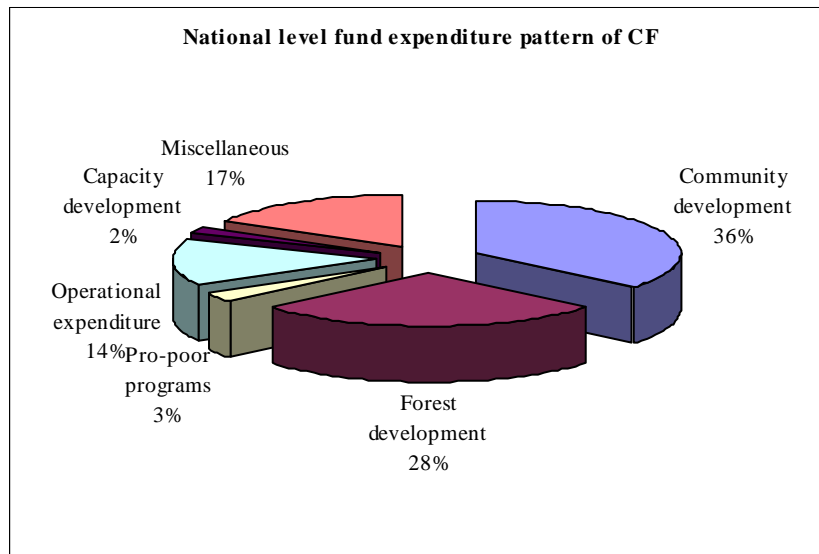


Figure 1: Fund expenditure pattern of Community Forestry in Nepal

(Source: (Kanel and Niraula 2004)

Some of these activities are directly related to Millennium Development Goals. For example, in eastern Nepal, forest user groups have been able to invest US\$327,000 generated by the sustainable use of forests over ten years in formal school education, informal literacy programmes for women and the poor and scholarship for poor students (Mayers 2007). This is an example of Community Forestry contributing to one of the Millennium Development Goals (MDG): achieve universal primary education, promote gender equality and empower women, the second and the third goals of MDG (Mayers 2007).

Several impact studies of community forestry across the country have concluded that community forestry has brought significant favourable alteration in the socio-economic status of the community (Schereier et al. 1994; Virgo and Subba 1994). Some community forests have contributed in road, school, irrigation canal, health post etc which has caused several direct and indirect positive impacts upon the livelihoods. Furthermore, community forestry has brought supportive influences on agriculture production, income and employment generation, biodiversity conservation, social unity and literacy in society. So, community forestry has brought a change of great

socioeconomic significance in rural society (Branney and Yadav 1998; Malla 2000; Pokharel 2004; Pokharel et al. 2005).

However, there are plenty of cases that report the negative impact of community forestry programme upon the livelihoods of poor and forest dependent people (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003). For instance, Gentle (2000) stated that community forestry programme has widened the gap between the poor and the rich people involved in community forest management. Elite groups in the villages dominate decision-making and often neglect the interest of other people. Participation of poor and disadvantaged groups in community forestry is very low while the local elites (high social status, wealthy and educated) are influential in local decision-making processes of community forest user groups (Gilmour and Fisher 1991). Consequently, an unequal distribution of community forestry benefits in favour of local elite is common in many community forest user groups (Maharjan 1998; Brown et al. 2002). This variability in community forestry outcomes indicates an intricate relationship amidst community forest governance, forest resource status, and livelihood of people which is dealt below in detail.

Good forest governance

Forest governance is defined as the set of principles and rules of forest resources management under which power is exercised and practiced in all spheres from private to public and the relationship between the state and its citizens, civil society and the private sector (Pokharel and Niraula 2004). It can have different meaning at different context. But, for poor and marginalized people, good governance means an enabling environment with higher inclusion and reduced marginalization. That means greater opportunity for their involvement in public policy making, greater likelihood of being treated equally by the law, more space to associate and pursue interests, and a better chance of bureaucrats behaving responsibly towards them (Pokharel and Grosen 2000).

The prevalent hierarchy in Nepalese society among rich and poor, low caste and high caste, male and female is the greatest challenge for the smooth functioning of any development endeavours. Due to such hierarchy, there is the degree of social, political and economic exclusion resulting to poverty. Mostly, women and ethnic groups are left out of the mainstream of development as they lack voice, empowerment, representation and access to economic opportunities. Therefore, weak governance is the key determining factor to exacerbate the poverty (HMG/N 2003).

However, surprisingly, community forestry has exhibited better governance. A number of studies (Malla 2000; Dev et al. 2003; Pokharel 2004; Pokharel et al. 2005) have revealed that community forest user groups are increasingly being more responsible, accountable, transparent, compliant of rules, laws and decisions, decentralization and devolution of power and authority, defined roles and responsibilities, pursuant of participatory decision-making, gender sensitivity, equitable representation and user balance, bi-directional flow of information horizontally and vertically. These are the

indicators of good forest governance (RECOFTC 2001). As an example, in Dolakha, Ramechhap and Okhaldhunga districts of Nepal, where Nepal Swiss Community Forestry Project is supporting, the percentage of household membership, in community, of the total district population has increased from 18% in 1995 to 76% in 2004; women in community forest user group committees have increased from 21% in 1995 to 35% in 2004. Representation of women in key decision making positions such as chairperson and secretary has also increased.

Similarly, Dalit's representation in community forest user group committees has increased proportionally with district population from 3% in 1995 to 11% in 2004. Likewise, representation of ethnic minorities in community forest user group committees has also augmented (Pokharel et al. 2005). One of the positive impacts of the current forest policy is enhanced social and human capital of local people. In particular, inclusion and representation of marginalized communities such as poor women, socially excluded groups and people from remote areas in leadership positions of Community Forestry governance has occurred at local level. These people later have been able to competitively acquire leadership positions in local governments (Gronow et al. 2003).

Pokharel (2005) stated that community forest user group (CFUG) are functioning as a small nation (Box 1) delivering services analogous to 16 ministries like election of executive committees, budget allocation, and contribution in road, school etc. So, good governance of each community forest user group could facilitate achieving the national targets of the policies and strategies

Box: 1 CFUG as a small nation (Pokharel 2005)

1. Parliamentary system-	Election/selection of executive body
2. Ministry of Finance	Management of CFUG fund, loan flow to the users, present annual record of income & expenditure in the assembly
3. Ministry of Law and Justice	–Conflict resolution relating to access and control over resources forest boundary problem etc
4. Ministry of Supplies	Supply forest products goods & services to communities
5. Ministry of Cooperatives	CFUG networks and federation safeguarding user's rights
6. Ministry of Home	Patrolling and protection of forests against destructive factors
7. Ministry of Environment	Activities conducted relating soil conservation and watershed management
8. Ministry of Agriculture	Support to users in vegetable farming, livestock husbandry, fishery, bee keeping, construction of irrigation canal
9. Ministry of Physical Planning	Construction and maintenance of community building, drinking water, bridge etc
10. Ministry of Women and Social Welfare	Focus on situation of women, dalit, members from ethnic minorities and remote places
11. Ministry of Education	Support in scholarship, teacher's salary, school building and furniture etc
12. Ministry of Transport	Fund investment or labor contribution in constructing road/trails
13. Ministry of Communication and Information	Public hearing, public auditing, information flow both vertically & horizontally
14. Ministry of Tourism	Ecotourism by constructing picnic spot, temples, recreational spots
15. Ministry of Health	Investment in health post, medicine, awareness in sanitation.
16. Ministry of Forest	Forest management, sivicultural operations, harvesting with growing stock assessment

Nevertheless, the results are not smooth throughout the country (Varughese 1999; Chakraborty 2001; Schweik et al. 1997). There are plethora of studies those have reported negative consequences on poor people after community forestry. After the community forestry has been formed, degraded forest are closed off to enhance the forest regeneration, this act however affects the forest dependent poor people (Edmonds 2002; Springate-Baginski et al. 2001). Community forest user group committees and user group decision-making are dominated by elites (Dougill et al. 2001). Though the forest policies have been decentralized and devolved; the power is vested among the handful of influential elite people (Azhar 1993; Robbins 2000). Low caste people and women who are most dependent on the forest have marginal role in decision making process (Mehta and Kellert, 1998, King et al. 1990; Hausler 1993). Roles and power are distributed according to defacto power structure and political balance of the system (Giri 2006).

Despite the power devolution effort of government from central level to local indigenous people/institution level, the results are heterogeneous. Certain groups unfairly use their increased power for their personal interests and agenda and women and minorities who are traditionally powerless are hardly empowered (Kellert et al. 2000). Such a situation has led to “participatory exclusions” (Agrawal 2001) within users in Community Forestry programme. Therefore, even though enhanced through liberal policies, community forest policies in practice have been acted upon as ‘centralized decentralization’ (Hobley 1996; Giri 2006) hampering the deliberative interactive mechanisms (Giri 2006) that community forestry policies can potentially offer if well-governed.

Sustainable Forest Management

Forest management activities of community forest user groups include plantation in the degraded forest, enrichment planting in the existing forest, their protection, management of already established forest, and control of fires, illicit tree felling, grazing. Consequently, the major achievements have been protection of the forest, expansion of greenery, rehabilitation of degraded land and restoration of biodiversity (Schreier et al. 1994; Virgo and Subba 1994; Collett 1996).

Community forestry in Nepal is especially successful in forest conservation (Springate-Baginski et al. 2001; Gautam et al. 2002, 2004; Yadav et al. 2003; Thoms 2008). The comparative studies of the forest before and after community forestry have shown the better establishment of plantation, regeneration, and faster growth of tree (Roberts and Gautam 2003). People are applying their indigenous knowledge to protect, and manage forest for fulfilling their basic needs which are the primary goals of community forestry (Gilmour and Fisher 1991). Some community forest user groups are involved in active forest management such as the establishment of experimental plots to investigate the effect of different silvicultural treatments and their application in larger scale. As a result, dramatic improvement of forest after the community forestry programme has been observed. For example, Branney and Yadav (1998) revealed the increased total number

of stems per unit area by 51%, basal area by 29%, increased active forest management from 3% to 19%. In a study of 135 square Km watershed area, Gautam et al. (2003) found decreased number of forest patches (395 in 1976, 323 in 1989, and 175 in 2000) and continuously increased area per patches implying the connectivity through forest regeneration.

But, most of the community forest user groups are protection oriented. They are only removing dead, dying, fallen trees, and leaf litter. Due to such passive management, using forest just for the subsistence needs, the productivity of the forest is not completely utilized (Sowerine 1994; Shrestha 2000; Larsen et al. 2000; Edmonds 2002; Malla et al. 2003; Pandit and Thapa 2004; Yadav et al. 2003). Hill (1999) estimated NRs. 560 per household per day as the loss of not conducting active management in community forestry. Moreover, community forest user groups are extracting fewer products than the capacity of forest. In a study from Dolakha district, Koirala (2006) found that the capacity of forest to supply the products has dramatically improved: 134% increase in timber, 405% increase in fuelwood, and 582% increase in fodder from 1999/2000 to 2003/2004 (see Fig. 2). Demand of the forest product is higher than the prescribed supply of those products. But, community forest user groups are taking less forest products than the forest can supply. It reinforces that community forest user groups are strictly protecting the forest with minimal extraction. Therefore, it has been essential and challenging to expedite active forest management- extracting the overstocked product and enhancing the productivity to the fullest potentiality of the forest.

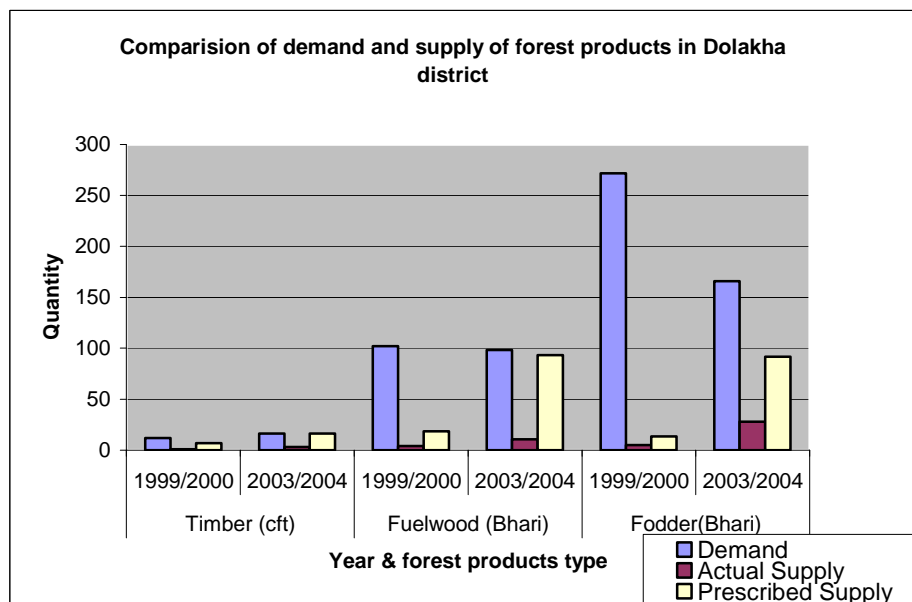


Figure 2. Comparison of demand and supply of forest products in Dolakha district (Koirala, 2006)

Sustainable Livelihood

According to the sustainable livelihood framework (see Fig. 3), a system or an individual can generate sustainable livelihood outcomes and strategies mobilizing the livelihood capitals (DFID 2002). Pokharel (2004) considered community forestry as the most successful programme in generation of livelihood capitals; natural capital (forest itself), human capital (acquiring expertise), financial capital (CFUG Fund), social capital (CFUG networks), physical capital (infrastructures like road, schools) (Dev et al. 2003). Forest also includes the capability benefits such as opportunities for social networking and skills development during user group formation, through income generation, home improvement, improved trails, in-village drinking water sources, support to schools (e.g. salary, building materials, etc.), construction of community buildings, community roads, and village electrification (Thoms 2008).

Assessing these capitals in individual household for well being ranking, the user groups identify poor people. For identified poor, community forest user groups develops the provision of income generation activities like goat keeping, bee keeping, mask-carving, bamboo furniture and other benefits like reduced or no price for the fuelwood. Some community forest user groups collaborate with other groups to develop forest based enterprises like resin tapping, paper making and juice making industries and they give priority to poor in employment opportunities. To improve the livelihood of forest dependent poor people, Nepal Swiss Community Forestry Project introduced the concept of “FREE LIFE approach” which includes Free forest product for poor, Funds for them, their Representation in leadership positions, Employment, scholarship for Education, access to community forest Land, Inclusion in decision making processes, equitable access to Forest products, and income generating Enterprises. Based on their resources, community forest user groups develop livelihood strategies that motivate people’s participation and contribute in poverty reduction.

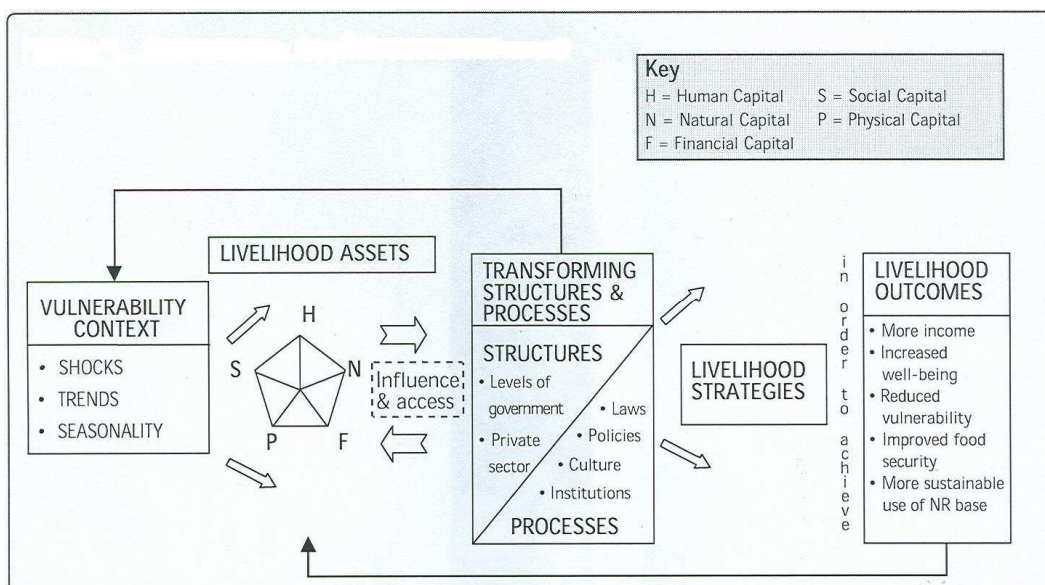


Figure 3 Sustainable livelihood framework (DFID, 2002)

For the livelihood of poor and disadvantaged, equity has been prime focus and increasingly being practiced. Equity is the special consideration for the marginalized section of the community (poor, women, dalits). It includes human rights and gender equity and the reversals, not for absolute but for levelling, of putting the last first and the first last to be considered in all contexts (Chambers 1997). This sort of substantial focus for them is against the widely existing socio-political system of hierarchical nature. Therefore, it is most challenging as it lacks the support of or even the consent of, the elite and affluent. Even the targeted population is not strictly adhering upon such proposition (Baral 1999).

Here is a good example of equitable benefits distribution, in other words, putting the last first, from three hill districts viz. Doalakra, Ramechhap and Okhaldhunga among 75 total districts in the country (Steenhof et al. 2007). Out of total 900 Community Forest User Groups (CFUGs) in that area: provision of equitable and positive discrimination for timber distribution is good in 41%, satisfactory in 46% and poor in 13%; provision of equitable and positive discrimination for fuelwood distribution is good in 52%, satisfactory in 38% and poor in 10%; provision of equitable and positive discrimination for non timber forest products good in 19%, satisfactory in 29%; and poor in 52%. Similarly, 8% of community forest user groups have allocated forest land, 7% has provided grant support and 24% has provided loan assistance to disadvantaged households to conduct various income generating activities. 13% of community forest user groups are providing scholarship to poor and disadvantaged students, 49% are delivering various humanitarian supports to the victims of natural disaster, 26% are helping in health and medicine and 17% are providing shelter support through goods and services to the poor. In all of these cases, there has been dramatic improvement compared to last three years (Steenhof 2007).

People have modified livelihood strategy to adapt communal rules of limited access to community forest by increasing the number of trees in the private land, keeping quality of livestock than large herds (Otsuka and Place 2000; Foster et al. 2000). But, there are some cases in which poorer households are negatively affected (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003) because of their high dependency on the forest and due to lack of other alternatives. Poor people, not having enough land depend on labouring, fuelwood collection and selling, charcoal production and blacksmithing. But, with controlled access, and limited use, those people are affected (Springate-Baginski et al. 2001).

Conclusion

Socio-economically poor but bio-physically rich Himalayan country, Nepal has passed through several stages in the history of forest management. National and international pressures are instrumental in shaping the forest management paradigm. The early

mode of tenured privatization had high degree of indigenous forest management with well balanced need fulfilment as well as forest conservation. But, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people transforming forest to open access common resource. As of Hardin's Tragedy of Commons, the deforestation and degradation of Nepalese forest and consequent regional flood disaster in lower plains laid the basis for Theory of Himalayan Environmental Degradation. In late 1970s, global recognition of role of forestry for local community development by Food and Agriculture Organization, and by Eighth World Forestry Congress in general and World Bank's alarmist view in particular pressurized the government to realize that without people participation government alone is incapable to manage the forest resources.

Slowly and steadily, legislative policies became more and more favourable to community participation and in early 1990s community forestry was fully legalized. After the legal recognition, community forestry in Nepal, especially in Mid-hills, has got momentum. Within two decades, it has been considered as the global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001). Comparing the predicted ecological doom in mountains of Nepal by The World Bank in late 1970s to the present recognition Nepal as a global leader in forest conservation through community forestry programme implies that Nepal has been an excellent evidence indicating a dramatic trajectory of forest change (from severe deforestation at one point to extensive regeneration at another point within two decades).

Now, the community forest has been established as a successful programme to improve the forest condition and livelihood of people (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Some of the crucial factors for the success of community forestry are dynamic and adaptive nature of the programme, restructuring and reformulation of policy and devolution of authority to local communities. Supportive policy framework has been the key factor that triggered motivation of local communities for their institutional arrangement to find themselves in transformed scenario and it got the greatest impetus after government legitimized the usufructuary rights of people (Hobley 1996).

The challenges such as fully empowerment of women, disadvantaged group and their role in leadership are highly prevalent and successes are not uniform throughout the country. Community forestry led devolution revolution (Thoms 2008) not only within the forestry but also in other sectors like watershed management and protected area management. Due to community forestry, society has been transformed as decentralized, participatory and equitable. However, as Nelson and Wright, (1995) stated, with devolution, there is a potential for either genuine local empowerment or abuse of new sources of power by local elites (Thoms 2008). Due to the former kind of output from devolution, community forestry is highly touted as the successful participatory model. But, at the same time the later types of output are also equally prevalent. Therefore, higher degrees of challenges such as centralized decentralization

(Hobley 1996; Giri 2006), participatory exclusion (Agrawal 2001), and not fully realization of equity, putting the last first (Chamber 1983) have emerged due to lack of perfectly good governance.

Though there are few discouraging social issues to be addressed, achievements in biophysical aspects such as restoration of degraded land, hill slope stabilization, biodiversity conservation, soil erosion control, reduced encroachment and sustainable harvesting of the forest product are very encouraging (Collett 1996). Despite of bottlenecks to evenly acquire successes throughout the country, achievements till date have reflected the great potentiality of community forestry. They have encouraged envisioning that achieving good forest governance, sustainable forest management and livelihood in each community forestry, Nepal can attain the national goal of poverty alleviation and global goal of sustainable development.

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Paper II

In the absence of their men: Women and forest management in the Mid-hills of Nepal

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In the absence of their men: Women and forest management in the Mid-hills of Nepal

Abstract

In Nepal, the management of community forests is based on the participation and decision making of forest users. The premise of its success is the involvement of the real users in forest conservation and management. The Nepal Forest Law identify women as key forest users and underlines the importance of their participation in community forest management. However, given the socio-cultural setting and the prevailing patriarchy, fostering women's active participation is challenging. Women are traditionally limited to private sphere and men tend to look after the responsibilities in the public sphere. However, the increasing trend of men's outmigration observed in the Mid-hills may offer a window of opportunity for women to become more involved in the public sphere and thus, be able to have a decisive influence in forest management issues. This paper investigates the factors that have increased the participation and decision-making level of women in two community forest user groups. Data were collected through focus group discussions, informal discussions and interviews with key informants. The results suggest that two key factors that allow women to take an active role in the management of community forests are: previous experiences with women's groups and the men's full support. Given the high prevalence of men's outmigration in the Mid-hills of Nepal, these results are relevant to formulate policies and strategies that foster women's empowerment.

Keywords: community forestry, community forest user group, men's outmigration, left-behind women, participation, decision-making, Kavre district, focus group discussion

Women's participation in community forestry

Promoting participation and decision-making of the less vocal and less powerful into participatory programmes has remained orthodoxy for development work. In the management of natural resources such as forests, the emergence and institutionalization of participatory programmes has taken various forms under umbrella terms such as social forestry, collaborative forest management or community forestry.

The concept of local people's involvement in natural resource use and management is not new. What might be new is the use of structured models of participation that are built around specific decentralized policy frameworks, to empower the local people. Community forestry is one of the highly acclaimed participatory programmes in Nepal that works along with the principles of decentralization (Winrock 2002). It aims to provide for the basic forest needs to the local people by bringing in their participation to

the programmes through the formation of community groups, widely known as “community forest user groups” (CFUG). CFUGs are cohorts of users of a certain forest at the local level (neighbourhood, ward or village) that enjoy use rights of the forest after the forest has been handed over from the state to the community. Each CFUG is governed by an executive committee that acts on the behalf of the general assembly of all members.

Participation is a dynamic process through which stakeholders of forest management institutions influence and share control over development initiatives, and the decisions and resources that affect them (Cornwall 2003). Participation in CFUG is defined in its narrowest sense in terms of nominal membership and in the broadest sense as a process in which the disadvantaged such as women have voice and influence in decision making (Agarwal 2001). According to Agarwal’s (2001) “ladder of participation”, participation is ‘passive’ if women may get some information about community forest management but lack any opportunity to make choices or influence the decisions, whereas an active participation is characterised as women’s increased voice and influence in different initiatives, whether solicited or not.

Whereas the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women’s participation and decision-making into such “participatory” processes has remained mostly a rhetoric (Buchy and Subba 2003; Gupte 2004). Indeed, evidence suggests that women’s involvement has mostly been “passive” in community forestry, represented in the form of women’s household entitlement to CFUG membership (Agarwal 2001; Cornwall 2003; Gupte 2004). As such, women are often simply position holders without the possibility to influence decision-making.

Empirical evidence indicates various factors that constrain women’s participation in community forestry. Some argue that the socio-cultural context of Nepalese society and the existing local power structure that provides more power to men can lead to “participatory exclusion” of women in community forestry (Agarwal 2001; Lama and Buchy 2002; Gupte 2004). The influence of the socio-cultural context may be maintained through resistance from village men on the basis of expected gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lachapelle et al. 2004; Upadhyay 2005), improper attention to women’s needs and aspirations regarding the timings of forest meetings, women’s lack of self-confidence (Lama and Buchy 2002; Lachapelle et al. 2004). As such, traditional gender roles assigning different responsibilities to women and men can also restrict women’s access to natural resources. As a result, women are frequently excluded from decision-making in community forest management.

While the effect of socio-cultural context of the community has been reported to affect women’s inclusion and decision-making in community forestry, social-cultural context are not static but undergo continuous negotiations, adaptations and changes under

different mediating factors. Men's outmigration has been widely reported as one such factor to bring forth negotiations and social transformation in the society by (re)structuring of traditional gender roles, increased access to resources and greater decision-making powers (Hadi 1999; Hadi 2001; Zachariah and Rajan 2001) and makes women more active in community development activities and farming (Thelma et al. 2005; Kaspar 2006).

Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper aims to explore and examine in what ways rural women's participation and decision-making in community forest management is affected by men's outmigration. It also offers indications of the impact of women's participation and decision-making in community forest management and the existing constraints and challenges they face.

Methodology

Site selection

The study was conducted in the Mid-hills, a mountain range that crosses Nepal from east to west, between the Himalayan range in the north and the Ganges River plain in the south. The altitude of the Mid-hills varies between 1.000 and 3.000 m. The Kavre district, some 70 km east of Kathmandu, was selected as livelihoods rely mostly on subsistence agriculture, livestock farming and forest resources (DDC 2007). Also, Kavre district borders Kathmandu and is well-connected to other major towns such as Dhulikhel and Banepa. Therefore, many men come to these cities either for study, work or business. In addition, Central Bureau of Statistics (CBS 2001) reports many of the men from Kavre districts go to other countries such as India, Malaysia and Saudi Arab for employment.

For this study, two CFUGs with a high rate of men's outmigration were selected. As official statistical data on migration is inadequate and often not available in Nepal, outmigration levels in Kavre district were assessed through discussions with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level) and NGOs. This provided a preliminary list of areas within Kavre with particularly high rates of men's outmigration. Six CFUGs were then visited to check the rate of men's outmigration and other characteristics of the CFUG through discussions with members of the Village Development Committee (a local administrative unit acting at village level), school teachers, as well as members of the CFUG and its executive committee. Finally, two CFUGs – Chande Majuwa and Katunje Pakha – were selected, as both had a high rate of men's outmigration and an active participation of women in the CFUG. Also, the two CFUGs are similar in other important aspects, such as access to markets, income from the CFUGs and exposure to tours and trainings.

Data collection and analysis

Primary data was collected between November 2007 and January 2008 through focus group discussions, individual interviews and participant observation.

Three focus group discussions were carried out with ten women in each CFUG. Each focus group discussion took about two hours. The main issues discussed were the factors that motivated women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in these CFUGs. The members of the focus groups were also asked to list the main influencing factors and to rank them.

Furthermore, informal discussions with male members of the CFUG were conducted to assess their perception of women's involvement in community forest management in both CFUGs. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the CFUGs.

Results and discussion

Factors influencing women's participation in the management of the community forest

Forest management in both CFUGs started about 25 years ago through a reforestation project (Nepal Australia Forestry Project), funded by Australia. Both community forests were formally handed over to the CFUG about 15 years ago. At that time, women's participation was predominantly passive. Male CFUG members held meetings and took decisions while women were barely – if at all – informed about the timing and/or outcome of these meetings. Women were unaware of the functioning of the CFUG and the potential benefits they could gain from the use of CFUG funds. However, in the last five years, women's awareness and stake in forest management has increased, so that it can now be described as active participation in decision-making.

As the main factors that allowed for this increased participation and active engagement in the decision-making within the CFUG, the women in the focus groups stated that collecting forest products is their responsibility, and that through their increased awareness of the importance of the CFUG and their confidence in their own abilities to manage the CFUG, they started to take a more active role in the management of their community forest (see Fig. 1).

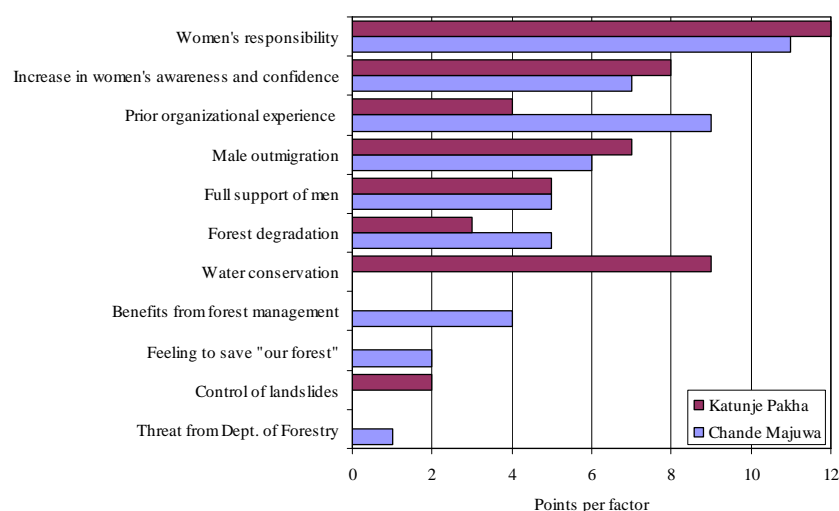


Figure 1: Weighed ranking of factors that motivated women to participate in community forest management

Note: Each of the 10 women participating in the focus group was given 5 points to distribute among the factors listed. Not all factors were listed in both CFUGs.

Forest and water are women's responsibility

Since in Nepal the collection of forest products such as fuelwood, fodder, grass and bedding material is mainly women's responsibility (Buchy and Subba 2003; Upadhyay 2005), women in both CFUGs started to face problems in meeting their household requirements as the state of the community forest degraded. Pressured to meet their household duties, women started to sneak into nearby community forests or national forest to collect forest products. However, these were farther away, so that the women had to spend more time to collect the forest products. Also, if the women were caught stealing the forest products from other CFUGs or national forest, they had to face penalties for misbehaviour and public shame. Securing a regular flow of forest products therefore became a core issue for the women, encouraging a more active participation in their own CFUG.

Women's increased awareness and confidence

The adult literacy programmes conducted by the Village Development Committee in both CFUGs provided a venue where women could sit together and learn in groups. This opportunity for information exchange made them more aware about the benefits they could potentially derive from forest management, such as planting medicinal plants in the forest to generate an income, or using CFUG funds generated from wood sales to address community problems.

Prior experience in organization

At the same time, women had the opportunity to get involved in some other organizations. In Chande Majuwa, women started a 'saving and credit scheme' where

each woman had to contribute 100 Nepalese Rupees (NRs.) per month. This allowed the women to set up a revolving fund which was used to solve the problems of member households in times of need. This experience provided women with the feeling that, if they organized themselves, they could solve their problems on their own, i.e. they did not always have to depend on their husbands or on another male household member. It strengthened the women's feeling of self-confidence and showed them the potential benefits they could derive from a successful organization. It also increased men's awareness and acceptance that women can successfully lead organizations. In the words of a woman in the focus group:

"Before, women in these villages were limited to performing assigned duties within their household only. But after being involved with the saving group, I also took on responsibilities of my household just like my husband. This has increased my self-esteem in my family as well as in society."

Focus group discussion, Chande Majuwa CFUG

Women in Katunje Pakha participated in a programme for children and women, initiated by the Katunje Village Development Committee, called DOCAW, which provided training to raise women's awareness of their legal rights. Participation in this training has enhanced women's knowledge and awareness of their rights and thus their self-confidence:

"Before, I did not know anything. Participation in DOCAW made me aware about my own rights as a woman. It has also increased my self-confidence and capability to voice my concerns in public meetings."

Focus group discussion, Katunje Pakha CFUG

The high rate of men's outmigration

The former Executive Committee of the Chande Majuwa CFUG was a men-only committee. When they made decisions about forest regulations, women tended not to receive any information about the timing of meetings or the decisions taken:

"Earlier we did not even hear about meetings. Men used to do that. They also did not use to share information. We didn't even know when the forest was opened and closed. We thought that it was only men who should held meetings and make decisions."

Focus group discussion, Chande Majuwa CFUG

In Katunje Pakha, women were formally included in the initial Executive Committee, but men monopolized the decision-making, so that the women ended up not participating in the meetings.

When the rate of men's outmigration increased, this led to a lack of guidance within the CFUG. Indeed, in Chande Majuwa most of the male members of the Executive Committee left for cities in search of better employment. Thus, the men were no longer present and able to provide the time required to solve the various problems in the community forest. As a result illegal tree felling and forest encroachment was rampant in

both CFUGs. In Katunje Pakha, forest degradation led to issues of water scarcity and landslides, which were a core concern of the women.

Full support of village men

Given their inability to cope with the rampant forest degradation, combined with an increased confidence in women's ability, men in both CFUGs finally encouraged women to come to the fore and take part in decision-making on protection, management and use of the community forest. In both CFUGs, women perceived that male members fully supported their engagement. Men thought that if women participated in decision making, introducing women's perspective and concern, the forest would be better cared for. Indeed, since it is mostly the women who go to forests to collect forest products, they tend to be the most knowledgeable (Agarwal 2000; Upadhyay 2005) about the forest condition, areas of illegal felling and even the illegal encroachers. In Chade Majuwa – combined with the outmigration of the male members of the Executive Committee – this led to the formation of an all-women Executive Committee, in Katunje Pakha the women's share was increased to 50% of the committee members (up from 10% about four years ago).

Family composition and remittances as mediating factors

A left-behind woman has to cope with new responsibilities in the absence of her husband. Such new responsibilities can lead to stronger exposure to the public sphere, as is the case with decision-making in the executive committee or the general assembly of a CFUG. This particularly applies to women living in a nuclear family without any adult son. In the absence of their husbands, these women started to attend public meetings and forest assemblies. This public exposure provided them with a new opportunity for learning and information sharing. With it, their interest in the management of the CFUG increased. This public exposure also provided them with enhanced negotiation skills and allowed them to voice their concerns related to forest management, thereby influencing decision-making.

However, in extended families, the responsibilities of the man who had outmigrated were taken up by another male member of the family, e.g. a father-in-law or brother-in-law. Thus, in both CFUGs, left-behind women who lived in extended families participated less in forest meetings and assemblies, compared to those living in nuclear families. These results are congruent with other studies that analyzed gender relations within households (Zachariah and Rajan 2001; Kaspar 2006).

All the left-behind women reported that their husband used to be a major source of information about issues in the public sphere, e.g. the time and location of CFUG meetings and decisions taken in assemblies. When their husbands left, they lost this prime source of information. Whereas women in joint families relied mostly on other family members (male or female) to obtain such information, women in nuclear families relied mostly on neighbours and relatives. However, if the left-behind women in nuclear

families were not satisfied with the information provided, they had a strong incentive to attend the next meetings themselves.

Existing literature indicates that left-behind women tend to have a high workload (Thelma et al. 2001; Gurung and Gurung 2002). In the focus groups, although the left-behind women reported that their workload had increased, it did not hamper their participation in community forest management. Indeed, the women noted that they were happy to attend forest meetings and general assemblies as such meetings provided them new avenues for learning, thereby supporting their self-development.

Another issue is the remittances that outmigrated men send home and the control over this new resource. In extended families, it is mostly the male member of the family who handles the remittances. Still, women's opinion on their use is heard, even if they often end up being used to purchase land or to build a house. In nuclear families, usually the left-behind woman shares decision making with her outmigrated husband and thus, has more influence on the use of remittances. Some families, both extended and nuclear, have invested a part of the remittances to purchase alternative sources of energy, e.g. gobar gas. In these cases, the remittances helped to reduce the women's dependency on forest resources, especially fuelwood.

Impact of women's engagement in community forest management

Women in both CFUGs perceived that their involvement in community forest management yielded many benefits. The forest is now better protected, and the forest condition has also improved in terms of forest regeneration. Women now have easier access to forest products such as fuelwood, fodder, grass and bedding material from their community forest. Women's active involvement in the CFUG has helped to draw attention to women's concerns and identify possible solutions to address them. Indeed, now that women take part in the meetings, they can voice their ideas and influence the decisions. Women are also better able to ensure that the funds generated in the CFUG are used to address their livelihood issues. Moreover, participation in the CFUG has exposed the women to public meetings and speaking in public. Successfully meeting this challenge has increased women's self-esteem and confidence.

Constraints and challenges to women's engagement

Despite women's active engagement in community forest management, women still feel hindrances owing to their level of education and knowledge about legal and financial aspect of community forest management. Most of the women in both CFUGs are illiterate or just literate. Therefore, women tend to develop a feeling that "they might do something wrong" if they undertake legal or financial management of CFUGs:

"In one of the Executive Committee meetings, male members of the Committee were suggesting that this CFUG should be converted into a women's-only Committee. They also asked my opinion

about it. I felt a bit troubled wondering how women could deal with financial matters of forest management on their own. Most of us are illiterate. How could we handle the required skills to maintain the minutes and financial records?”

A member of the executive committee of the Katunje Pakha CFUG

Though women fully acknowledged men’s support behind their participation in forest management, they also felt unsettled by men’s desire to use the CFUG funds according to men’s own interests. In Katunje Pakha, male members of the Executive Committee put the CFUG fund in a bank, despite female members’ preferences to set up a revolving fund to provide “easy loans” to needy families in the community. During the focus group discussion, women also mentioned so other conflicts regarding the use of CFUG funds:

“Once, a few men came to us and requested a grant from the CFUG fund to construct a road nearby. All the women signed to allow cutting trees from the community forest to raise about Rs. 35,000 for constructing the road. Later we came to know that only a small amount was used for road construction, the rest was used up by the men themselves. We felt cheated, but this event has made us more careful.”

Focus group discussion, Chande Majuwa CFUG

Conclusion

Community forestry in Nepal is one of the highly acclaimed participatory programmes that aim to encourage the participation of local people, mainly women, in forest management. Yet, women’s inclusion and active participation in decision-making remains as a challenge, and is often mere lip-service. However, the men’s outmigration, which is becoming a widespread phenomenon in the Mid-hills, could potentially mediate social changes. This exploratory study was conducted to assess and analyze under which conditions men’s outmigration could lead to women’s increased participation in the management of community forests.

As the cases of Chande Majuwa CFUG and Katunje Pakha CFUG indicate, men’s outmigration can indeed open a ‘window of opportunity’ for women. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. of a savings group – or participation in a women’s rights programme, increases the women’s confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men’s support, women are willing to take on new challenges and seize the opportunities that can arise from men’s outmigration. The extent to which left-behind women actually become actively engaged in community forestry management seems to depend to a large part on them being in a nuclear family and feeling that the information about the community forest they get from their social networks is not satisfactory.

Given the increasing rate of men's outmigration in the Mid-hills of Nepal, there is a tremendous scope to encourage women's participation in community forestry. To realise this potential, further research is needed to identify the factors that foster women's participation and their interrelations.

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Paper III

Outmigrating men: A window of opportunity for women's participation in community forestry?

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The paper has been submitted to the *Scandinavian Journal of Forest Research*.

The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Outmigrating men: A window of opportunity for women's participation in community forestry?

Abstract

Encouraging women to become active participants has been an important goal of the community forestry programme in Nepal. Achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women. In this study, we explore if there is a relationship between men's outmigration and women's participation in community forestry. Data were collected using a semi-structured survey, in-depth interviews and focus group discussions with women from two community forest user groups. Our analysis indicates that men's outmigration provides a 'window of opportunity' to increase women's participation, as the left-behind wives were more likely to attend the general assembly and voice their opinions during the general assemblies. However, the extent to which outmigration represents an opportunity depends on family type and composition. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions.

Keywords: decision-making, left-behind women, migration, community forest user groups, Mid-hills, Nepal

Introduction

In a globalized world characterised by regions differing in their economic dynamics, migration is widespread. Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies in which men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. The wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions.

One such institution is community forestry which plays a key role in securing forest resources for the household, such as fodder, firewood and timber. As there are few forests women can access freely, these resources mostly come from a forest managed by a local user group-commonly called as 'community forest user group' (CFUG). Although women are considered responsible to collect forest products, traditionally it is the men who represent the household during the general assembly and other meetings of the CFUG. During these meetings and in the general assembly, decisions pertaining to the management of the community forest are taken following a deliberative process. To maintain their membership, each member household must have at least one person present.

Although the community forestry programme has made substantial efforts to be gender inclusive, women have so far played only a subordinate role (Agarwal 2001; Buchy and Subba 2003). Women's active participation in decision-making has been hampered by a range of factors, such as women's traditional deference to men, their lack of experience with voicing their views in a public setting (Shrestha 1999; Chhetri 2001), their lower education level (Lise 2000; Lama and Buchy 2000) or their lack of access to employment (Ghimire-Bastakoti and Bastakoti 2006).

In this paper, we explore whether men's outmigration can open a 'window of opportunity' for women to engage actively in decision making within their CFUG. Indeed, if the man, usually the head of household, is not present, and given that each member household is required to attend the general assembly, necessity might push women into the public sphere. As previous studies indicate, the extent to which women will engage in the public sphere is likely to be affected by factors such as wealth, position within the family, family type (Shrestha 1999; Buchy and Subba 2003) and migration pattern (Hadi 2001).

Methods

Selection of the study area

Ramechhap district, some 220 km east of Kathmandu, in the Mid-hills of Nepal, was selected for this study as a high share of men migrate, and as it has a reputed history of forest restoration through the community forestry programme (NSCFP 2004). Key informants from District Forest Offices, District Development Committees, range posts, and NGOs were asked to name CFUGs with high rates of outmigration. From this preliminary list of CFUGs, those that had received support from the Nepal Swiss Community Forestry Project were selected. This allowed building on established relations of trust, which was important to secure access to the CFUGs, especially as data collection took place during a politically fragile period (end of the Maoist insurgency, see Karki and Bhattarai 2004). This short-list was further restricted to those CFUGs which were very similar regarding their ethnic composition, forest area per

household, forest condition, access to road and markets, and overall economic situation. From the resulting list of six potential CFUGs, two were randomly selected: Majuwa Bhumithan and Dugursingh Hup. Including two CFUGs allowed for a larger sample size and gave the opportunity to include a wider variation in strategies to cope with men outmigration.

Data collection

Data was collected in three steps between October 2007 and February 2009. In a first step, to assess whether there is a relationship between men's outmigration and women's involvement in the CFUG, a questionnaire-based survey was administered. The households were first divided into two cohorts- (a) households with married migrant men and (b) households with married men at home. All households from both cohorts from each of CFUGs were surveyed, if they were reachable, willing to participate in the study and if they had at least a married couple (thus, households of widows, widowers, or divorcees were not included since they do not allow to study the dynamics of gender roles). A total of 186 households were surveyed, with the wife of the household head or of the migrating man answering the questions. The survey included questions on the participation in silvicultural activities, attendance at general assemblies, whether the women voiced their views at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. In a second step, to better understand how husband's outmigration affected their wives, 30 left-behind women were purposively selected to cover a range of education levels, household types and family composition. These women were interviewed using a semi-structured interview format that focused on their personal experiences in coping with their husband's outmigration. The interviews took approximately two hours each. In a third step, five group discussions were held: two with women living in a nuclear family, two with women living in a joint family and one with a combination of both. During the group discussions, the 40 women were encouraged to discuss their personal experiences as well as how they perceived men's outmigration to affect the community as a whole. Each discussion took about four hours. Both the semi-structured interviews and the group discussions were tape-recorded after receiving permission from the women.

Data analysis

The quantitative data collected in the survey was analysed using SPSS. First some descriptive statistics were calculated to characterise the surveyed households. To analyse the factors affecting the women's participation in the CFUG, two proxy variables were selected: (1) attendance at the general assembly, (2) whether the woman voiced her opinion on upcoming forest management decisions during the general assembly or during earlier preparatory meetings. Both proxy variables were ranked on a 3-point scale, ranging from 'never' to 'sometimes' and 'often'.

Regarding the factors that might affect women's participation, we first analyze differences between left-behind women and women whose husband is at home, using Chi-square tests. Secondly, we focus on the variables that can explain differences within left-behind women. To assess the statistical significance of the variables, we use Chi-square tests as well as an ordered logit regression. Ordered logit regression was selected as the 3-category dependant proxy variables are neither continuous nor normally distributed (Norušis 2008).

The qualitative data from the interviews and the group discussions was examined using content analysis (Berg 2009). The focus was on identifying those causal relationships, as perceived by the women, which explain the result of the statistical analysis of the survey data.

Results

Characteristics of the CFUGs

In both CFUGs, the dominant ethnic groups (Tamang and Magar) do not have a caste hierarchy and there is little difference in wealth between CFUG members. All rely heavily on forest resources, and fuelwood is their only energy source for cooking. Due to the poverty prevalent in these communities, outmigration is a widespread livelihood strategy. Of the 186 surveyed households, 16.1% of the interviewees' husbands migrate between 6 and 12 months per year, mostly to larger towns within Nepal, to work as wage labourers in carpet weaving, brick kilning or as taxi drivers. Some 32.8% of interviewee's husbands migrate for more than 12 months at a time, mostly to India or the Gulf states. The household types were distributed nearly equally: 44.6% of surveyed households are joint households, i.e. in-laws or siblings share the same household, where as 55.4% of surveyed households are nuclear, i.e. composed only of the husband and wife, as well as their children. The majority of the surveyed women (61.8%) were illiterate. However, 25.8% had attended formal schools and 12.4% had attended adult literacy classes. The average age of the surveyed women is 33.2 years. Nearly half (44%) of left-behind women are engaged in self-employment, mostly selling vegetables or alcohol.

Differences between left-behind women and women whose husband is at home

Although the vast majority of women are involved in collecting forest products, only half of the surveyed women (50.7%) stated that they attend general assemblies at least occasionally. Left-behind women are not only more likely to attend general assemblies; they are also more likely to attend them regularly (Table 1). Only a third of all surveyed women (32.8%) stated that they voiced their opinions before or during general

assemblies. Here also, left-behind women are more likely to express their views (19.8%) compared to women whose husband are at home (5.3%), a difference that is statistically significant (Table 1). These findings indicate that there are significant differences between the two groups of women (Table 1). Left-behind women are significantly more likely to be present at the general assemblies, where decisions regarding the management of the community forest are discussed and taken. They are also significantly more likely to raise their concerns and influence forest management decisions.

Both the in-depth interviews and the focus group discussions with left-behind women have confirmed that their behaviour in relation to attendance at the general assemblies and to voicing their views regarding forest decisions has changed after their husbands outmigrated. Left-behind women had to take up the roles and responsibilities of their husbands, both at the household and in community institutions. Left-behind women had little choice, given the importance of attending the general assembly to continue the membership at the CFUG and thus, maintain access to forest products.

Table 1: Differences between left-behind women (n=91) and women whose husband is at home (n=95)

Variable description	Answer categories	Left-behind women (% per category)	Women with husband at home (% per category)	X ² test (p values)
Attendance at the general assembly	Often	45.1	17.9	0.001**
	Sometimes	11.0	27.4	
	Never	44.0	54.7	
Voicing their opinion	Often	19.8	5.3	0.010*
	Sometimes	17.6	23.2	
	Never	62.6	71.6	
Involvement in forest product collection	Often	78.0	66.3	0.205
	Sometimes	15.4	23.2	
	Never	6.6	10.5	
Dependent on fuelwood from CFUG	Very much	53.8	52.7	0.231
	Somewhat	27.5	36.3	
	A little	18.7	11.0	
Family type	Nuclear	38.5	71.6	0.001**
	Extended	61.5	28.4	
Education level	Illiterate	47.3	75.8	0.001**
	Literate	52.7	24.2	
Mother-in-law in the household	Yes	57.1	21.1	0.001**
	No	42.9	78.9	
Adult men in the household	Elderly	25.3	4.2	0.001**
	Young	7.7	73.7	
	Both	20.9	22.1	
	None	46.1	0.0	
Adult son in the household	Yes	9.9	25.3	0.005**
	No	90.1	74.7	

**Significant at 1% level *Significant at 5% level

Differences within left-behind women

The left-behind women are not a homogeneous group, however. Especially the household type has a significant influence on whether the women attend the general assembly and voice their opinions (Table 2). If the left-behind women live in a joint household, she is less likely to attend the general assembly than if she lives in a nuclear household (32.2% vs. 84.3%). As expressed during focus group discussions, in joint households, it is likely that some other family member, such as a father-in-law, a brother-in-law or an adult son, will take up the outmigrated husband's role and responsibilities. Indeed, the presence of adult men in the household is significantly associated with the left-behind's women attendance of the general assembly (Table 2). The type of adult man (such as father-in-law or son) present at home can again lead to variation. About 25% women with elderly adult men at home do attend the general assembly, compared to 83% of women with young adult men such as a son. However, not only do other men take over the roles of the outmigrated husband, they can also be taken over by senior women, such as the mother-in-law (Table 2).

If the left-behind woman lives in a nuclear household, she is very likely to take up the role of her migrating husband. Having an adult son does not influence her attendance at the general assembly (Table 2). During the focus group discussions, this was explained by the fact that adult sons tend to reside in a different town for educational purposes and thus, are not able to take over the roles and responsibilities of their father.

Surprisingly the migration pattern does not have a significant influence on left-behind women's attendance at general assemblies (Table 2). The in-depth interviews revealed that this is linked to husband's individual preferences. In some households, husbands encourage their wife to attend the general assembly even if he is back at home, as he does not feel sufficiently informed to represent their household at the general assembly. However, other husbands prefer to attend the general assembly themselves whenever they are at home.

Left-behind women who are self-employed are significantly more likely to express their opinions regarding forest decisions (Table 2). However, there is no significant relationship with the attendance at general assembly. The focus group discussions revealed that women who are self-employed have experience with being exposed to the public sphere and gained confidence in voicing their opinion. However, due to their work commitment, they are not always able to attend the general assemblies.

Whether the left-behind women are literate or not has no significant influence on them attending the general assembly or voicing their opinions. This indicates that although illiterate women might not be able to read the written documents of the CFUG, it does not influence their commitment to attending the general assembly and voicing their opinions.

Table 2: Variables influencing left-behind women's attendance at general assemblies and voicing their opinions at or before general assemblies (n=91)

Variables	Description of variables	Attendance at general assemblies		Voicing her opinion	
		χ^2	p-value	χ^2	p-value
Household type	nuclear / joint	44.267	0.000**	10.503	0.005**
Adult men in the household	yes / no	33.069	0.000**	10.633	0.005**
Type of adult men	elderly / son	14.639	0.001**	2.609	0.271
Presence of mother-in-law	yes / no	39.042	0.000**	6.611	0.037*
Adult son in nuclear family	yes / no	1.347	0.510	0.809	0.667
Migration pattern	6-12 months / > 12 month	1.162	0.559	3.810	0.149
Education level	Illiterate / literate	4.133	0.124	0.216	0.898
Self-employment	yes / no	4.648	0.098	10.364	0.006**

Degree of freedom: 2

**Significant at 1% level

*Significant at 5% level

Regression analysis

The three-ordered regression analysis allows to identify significant independent variables that influence left-behind women's attendance at general assemblies and voicing their opinions about forest decisions. The regression analysis also estimates the direction of such relationship based on the sign (+ or -) of regression coefficients. The log likelihood test also showed that the regression models fit the data and they have good explanatory power. Since the presence of an adult man or of a mother-in-law is tightly related to the household type, they are excluded from regression analysis. The presence of an adult son in a nuclear family is also eliminated, as we do not have a large-enough sample to be able to include it in an ordered regression.

Both household type and self-employment are significantly and positively related to left-behind women's attendance (Table 3) and expressing their opinions regarding upcoming forest decisions (Table 4). Education and migration pattern were not significantly related to left-behind women's attendance and influence in forest decisions.

Table 3: Ordered logistic regression predicting left-behind women's attendance at general assemblies

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	3.775	0.687	0.001**	3.597
Education level (1=illiterate)	-0.214	0.553	0.699	0.807
Self-employment (1=yes)	1.031	0.519	0.047*	2.803
Migration pattern (1= < 12 months)	0.342	0.534	0.522	1.407

LR χ^2 (4 d.f.) = 54.657, Prob > χ^2 = 0.001 Log pseudo likelihood = -102.506

**Significant at 1% level *Significant at 5% level

Table 4: Ordered logistic regression predicting left-behind women voicing their views of upcoming forest decisions

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	1.478	0.501	0.003**	4.384
Education level (1= Illiterate)	-0.574	0.498	0.249	0.563
Self-employment (1=yes)	1.263	0.469	0.007**	3.536
Migration pattern (1= < 12 months)	-0.612	0.524	0.243	0.542

χ^2 (4 d.f.)= 22.509, Prob > χ^2 = 0.001 Log pseudo likelihood = -84.557 **Significant at 1% level

The regression analysis also shows that, when holding other variables constant, the odds for a left-behind wife living in a nuclear family to attend general assemblies is 43 times higher than the odds of left-behind women living in a joint family (Tab. 3). The odds of a left-behind woman living in nuclear family voicing her opinion is four times higher than the odds of a woman living in a joint family (Tab. 4). The odds of women who are left-behind and self-employed to attend general assemblies are nearly three times higher than those who are not self-employed (Tab. 3).

Discussion

Women's participation in the management of a community forest is influenced by a number of individual and social factors (Lise 2000; Agarwal 2001; Lama and Buchy 2002; Adhikari et al. 2004). This study analysed the extent to which men's absence due to migration, can open a window of opportunity for women to become more involved in the decision-making of the CFUG.

The findings indicate that women whose husband outmigrate are significantly more likely to attend general assemblies than women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring social roles and responsibilities both within households and within community institutions (Zacharia and Rajan 2001; Karki and Bhattarai 2004).

However, the household type (extended or nuclear) and composition (presence of adult men or older women) are important factors modifying the impact of outmigration on the left-behind women. Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. Women living in nuclear families, especially when they did not have another adult in the household, were the most likely to become actively involved in the decision-making of the CFUG. Earlier studies (Hadi 2001; Kaspar 2006) also indicate the role of household type. Being self-employed also had a significant impact on the women voicing their opinions.

These results need to be understood in the context of the CFUGs studied: they are characterised by low income levels and high dependence on the CFUG especially for fuelwood. Retaining the membership of the CFUG by attending the general assemblies was thus a high priority for the women. As both CFUGs are characterised by a high share of men leaving the community to search for employment (over 50% outmigration rate), the community might display a higher level of understanding that adjustments need to be made and thus, might be more willing to accept untraditional behaviour by left-behind women. This acceptance might be reinforced by the pressure by the Department of Forest to include women in the management of the CFUG. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling left-behind women to engage in the public sphere.

This study does not allow assessing to which extent left-behind women's attendance at the general assembly is the beginning of a wider engagement of women in the CFUG or in the public sphere generally. Some studies on the effect of outmigration in Nepal have indicated that, after their return, men tend to reclaim their pre-migration roles and decision-making competencies (Miller 1990 in Kaspar 2006; Kaspar 2006). However, other studies indicate that outmigration can permanently alter traditional mores and culture, so that women can have more freedom and decision-making powers, even after their husband returned home (Hadi 2001).

Conclusion

The study shows that under certain conditions a high rate of outmigrating men in search of work can open a window of opportunity for women to participate actively in the management of community forests. Whereas women have traditionally participated in the silvicultural activities of the CFUG, their presence and active involvement in decision making is very recent. Given the aim of Nepal's forest policy, to institutionalize gender equity and promote democracy through the community forestry programme, supportive measures should be provided to sustain women's entrance in the public sphere. Such a policy support, can add to the progressive redefinition of social structures and norms, even after the husband returns home.

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Paper IV

Nepali women using community forestry as a platform of social change

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Nepali women using community forestry as a platform for social change

Abstract

Successful implementation of decentralized programmes such as community forestry depends on participation of local users. Although women have been recognized as the primary users of forests, they are widely reported as marginalized in decision-making processes. Previous studies mostly take a static view, focusing on exclusionary structures to explain how and why women are marginalized. A focus on social change processes would allow better understanding of whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. Based on survey, interviews and group discussions in two community forest user groups, we argue that women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. We point out the need to understand participation as an on-going and open-ended process of social change rather than as a predefined outcome.

Keywords: management of natural resources, gender, participation, perception, decision-making, Nepal

Introduction

Nepal initiated its community forestry programme in the late 1980s with the twin goal of conserving natural resources and providing local users with forest products. Community forestry is widely recognized as a promising approach to forest management and governance, especially regarding its ability to improve the condition of forests (Banjade and Ojha 2005; Gautam and Shivakoti 2005; Koirala et al. 2008; Thoms 2008). Currently Nepal has some 14,400 community forest user groups (CFUG) involving over 1.6 million households (DoF, 2007). By devolving management rights to local user groups, the programme also aims at contributing to social equity by securing resources for disadvantaged groups, such as the poor, low caste and women (Acharya 2002; Adhikary 2002). Indeed, in rural Nepal, forests are a key natural resource that provides leaf litter, firewood, fodder, grazing resources as well as timber. Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups.

These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active

participation in the decision-making mechanisms within the CFUG (Agarwal 2001a; Agarwal 2001b; Lama and Buchy 2002). This recognition was followed by policy initiatives to increase women's inclusion in the decision making bodies of the community forestry: the Ninth Five-year National Development Plan 1997-2002(NPC 1997) provides directives for the inclusion of women in the executive committee of the CFUG; the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) requires that for each household one man and one woman must be included in the list of members. Although these gender-friendly policies have done much to increase the formal inclusion of women in the decision making bodies, studies point out that women still tend to be excluded from active participation in decision-making (Buchy and Subba 2003; Gupte 2004).

The questions thus remain whether exclusion and inequality are maintained over time, and what processes can induce change. Understanding processes of change is crucial to identify approaches that could lead to equity in decision-making and transformative participation by women and other disadvantaged groups. Previous studies have mostly emphasized the need for different structures to induce change (Lama and Buchy 2002; Gupte 2004; Thoms 2008). These approaches tend to depict women as powerless victims, as passive receivers of development and thus as dependent on external interventions. Although we agree that structural change and external interventions are important leverage, they are not sufficient to induce social change. We want to draw attention to the women's agency, to their active engagement with the space offered by these structural changes. Building on Nightingale's (2006) understanding of gender as process, as being recreated and changed in daily interactions, we focus on how the women can use the CFUG as a platform to contest and reconstruct their roles and rights.

The paper starts with a brief overview of the theoretical background on understanding change through creative acts in daily social encounters, before presenting the results of a case study of two CFUG. Based on a survey, interviews and group discussions, we present women's perceptions of decision making processes within the executive committee and the general assembly of their CFUG. We analyze how the women use current structures to widen their room to manoeuvre by contesting the traditional right of the men to be sole decision-makers. We show that although such acts might not always yield results that can be easily measured by development planners or evaluation analysts; they are part of a process of adjustment and adaptation over time. Our aim is thus to understand processes of social change, rather than limiting ourselves to measure participation outcomes.

Understanding women's agency in community forestry

Many studies assessing the participation of women in community forestry, specifically their ability to influence decisions, take an institutionalist approach. They assume that outcomes of collective action are determined by the institution's design principles (Ostrom 1990; Agrawal, 2001) and that the effects are largely governed by underlying social norms, which tend to be seen as stable (Lama and Buchy 2002; Gupte 2004; Ojha et al. 2009). They thus draw attention to various barriers to women's participation and identify a range of strategies that can induce change by external action and novel structures. These include revising legal provisions, setting adequate meeting times, organizing neighbourhood meetings, creating women-only groups, improving literacy, providing self-confidence training, and reducing women's work burden (Armitage and Hyma 1997; Agarwal 2000; Lama and Buchy 2002).

The identified barriers are certainly real and the strategies valid to increase women's participation in Community Forestry. However, these studies have paid little attention to endogenous processes of change, especially social processes involving continuous negotiation and change (Axelby 2007; Shortall 2008). Theories of social constructivism point out that interaction are based on the way agents socially construct their everyday realities (Steins and Edwards 1999). Processes within the CFUG are thus constructed (and reconstructed) by the people themselves. An explicit focus on the women's constructions, on their perception of processes within the CFUG can thus shed light on the complexities involved in the evolution of collective action and help us understand its dynamic nature. Indeed, communities and individuals are dynamic in that they are driven by an evolving set of beliefs and values. As experiences are processed, beliefs about the way the world functions, and the appropriate standards of human behavior for dealing with it, are continually adjusted (Fussel 1996). As social reality evolves, new feasibilities open up, allowing breaking through previous limitations.

We build on Dalton (2004) in viewing individual agency, and the creative acts of these agents, as a microsocial source of structural and social change. Dalton (2004) defines creativity as the necessary adaptation of habitual practices to specific contexts. He points out that all acts are creative in that they require the innovative adjustment to particular circumstances that can neither be neither precisely foreseen nor completely routinized. Creative acts by women in the CFUG thus continually introduce novel possibilities, establishing new rights, and new behavioural norms.

Obviously, how a novel possibility plays out depends on the social judgments and responses it provokes. Other groups or individuals may use innovative acts for their own interests, may decide to adopt or to modify creative acts for other circumstances, may condemn them as subversive or dangerous for social stability, or may engage in a variety of contradictory responses that reveal ambivalence linked to conflicting social

pressures or positions (Dalton, 2004). We thus understand women as creative agents, who continually produce practical innovations in interaction with a social and physical environment that systematically limits, judges, and incorporates those creative acts into the ongoing stream of social life.

Social life tends to be structured by gendered social norms that exclude women from participating in decision making processes in a CFUG. In Nepal, women were traditionally confined to the private sphere, whereas men dominated the public arena and were in charge of taking decisions that affected the community. However, as with other social norms, gender division of labor, gender rights, and gender duties are prone to change, not least through the creative acts of women. Gender roles and rights within a CFUG are not pre-determined or immutable; they are constantly being renegotiated, contested, and reaffirmed through social interaction. Once gender is re-conceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. The women may use the public platform offered by the CFUG to redefine what is considered an acceptable behavior for women. They might use it to acquire skills that they so far had no opportunity to experiment with and thereby enlarge their room for manoeuvre. In a series of subtle changes, women might thus be able to increase their influence in the decisions governing the management of the community forest.

Study sites and data collection

This paper draws on data from two CFUG located in Ramechhap district, some 220 km east of Nepal's capital city, Kathmandu. Ramechhap was selected as it has a long history of forest restoration through community forestry programmes (NSCFP 2004). Based on expert assessment, six CFUG with a high level of women participation, good access to markets, good forest condition and similar ethnic composition were short-listed. The dominant ethnic groups are the Tamang and the Magar, who do not have a caste-based hierarchy. As field work took place during the civil war (Sharma 2006) the CFUG were selected in cooperation with the Nepal-Swiss Community Forestry Project, to gain good cooperation and environment of trust while collecting data. From the list of six potential CFUG, two – Majuwa Bhumithan (Majuwa) and Dugursingh Hup (Dugur) – were randomly selected as case studies. Selecting two sites ensured adequate sample size and some variation in the practices of the executive committee and general assembly. Both CFUG were established around 1998 and the forests are predominantly pine plantations (NSCFP 2004).

Data were collected during two periods: from October 2007 to April 2008 and from December 2008 to January 2009. First, preliminary interviews were held with members of the executive committee (men and women) in both CFUG (4 in Majuwa, 5 in Dugur). Secondly, a snow-balled sample of households to survey was drawn from the membership lists. The semi-structured interviews in the survey were conducted face-to-

face with 120 women in Majuwa (57% of the households), and 66 in Dugur (67% of the households). The interviews were conducted with the wife of the household head. The survey included questions regarding the respondent's understanding of the operational plan, the rights and responsibilities of the users, and the household's involvement in community forest activities. She was also asked about her attendance at meetings, whether she speaks up to voice her opinions, and whether she was consulted before decisions were taken. Thirdly, in-depth interviews were held with 30 women. These provided insights in the women's experiences and their understanding of the processes within the CFUG. Finally, five group discussions were held, in which a total of 40 women participated. These women were purposively identified from the surveyed sample to include women of different age, education level and family structure. Topics covered in the group discussions included women's perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and how the women tackle these challenges. The in-depth interviews and group discussions were held by the first author in Nepali, transcribed, translated into English and analyzed using content analysis (Berg, 2009).

The women's perception of their CFUG

Perception of community forestry organization and of users' rights

All the interviewed women had a positive attitude towards their community forest user group, which is instrumental to overall performance of community based programmes (Matta and Alavalapati 2006; Allendorf et al. 2007). Since its establishment, they have access to forest products, which are protected since compliance to management rules is enforced. All women are actively engaged in silvicultural operations such as thinning or pruning, and regularly collect forest products.

Despite their involvement, few are aware of the documents which describe the formal organization of their CFUG (see Fig.1). Most of the respondents have never heard of the forest constitution. This document stipulates the rights and duties of the executive committee and of the CFUG members, as well as lists the names of members. Even fewer know about the Operational Plan, which includes the forest management plan, the harvesting regulations and the price of forest products. These are the two key documents of a CFUG. At the initial handing-over of the forest (i.e. when the boundaries of the forest were drawn, and its management (but not ownership) was handed over from the District Forest Office to the user group), they were written by the executive committee in consultation with a local NGO, and approved by the District Forest Office.

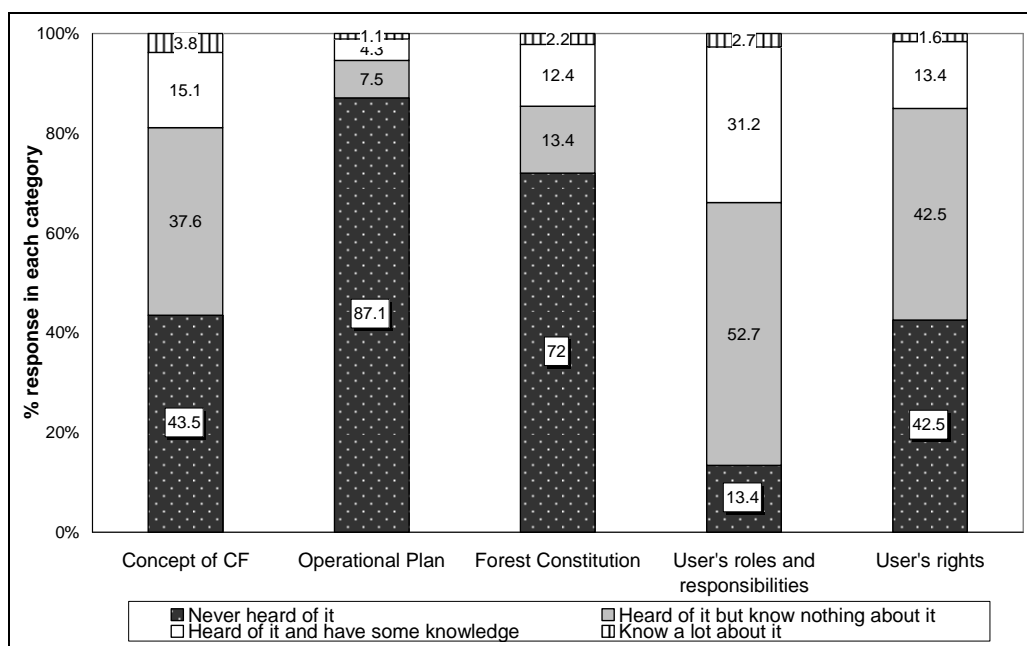


Figure 1: Respondents' knowledge of the formal documents as well as roles and rights in the user group

(Source: own survey, based on answers by 186 women)

The lack of knowledge about the regulations in the forest constitution can foster misunderstandings. For example, the member list in the forest constitution of both CFUG comprises a man's and a woman's name for each household, a fact that only 4.3% of respondents are aware of. More than 95% of respondents stated that only one person from their household has his name listed in the forest constitution. This person is assumed to be the head of the household: 51% stated that it is their husband, 24% their father in-law. This assumption is linked to the traditional deference to the male head of household, characteristic of a patriarchal society such as Nepal. The constitution states that "at least one member of each household should attend the general assembly", a fact that few women are aware of:

Only one person per household is called to the assemblies. So my husband, the head of the household, participated from my household. If two persons, both men and women have to attend general assemblies, I will start attending. [CT, Majuwa]

The poor flow of information thus leads to misunderstandings and erroneous perceptions about crucial issues such as the right to attend general assemblies or the ability to propose changes to the constitution. Indeed, although the constitution is updated every 3-5 years to adjust the provisions to the needs of the community, women perceive them as having a "legal" status and thus as "hard to influence and make changes" (BM, Dugur), rather than largely based on choices by the CFUG members. The fact that such misunderstandings are not cleared by the executive committee indicates that they use the knowledge about these key documents to symbolically distinguish between those who take decisions and those who actively work in the forest.

Perception of the executive committee and its decision-making process

To assess the perceptions regarding the central decision-making body, i.e. the executive committee, respondents were asked how committee members were selected. Surprisingly, about 40% of respondents do not know how the members of the executive committee are selected. A further 16% are unsure and provided a vague answer such as “it is a society’s decision, we all nominate”. Finally, 44% of respondents stated that the members are selected according to their abilities, where literacy plays a key role (see Table 1).

Table 1. Women’s statement regarding the attributes required to become a member of the executive committee (multiple responses were admissible)

Attribute	Description of the attribute by the respondents	Percent of respondents mentioning the attribute
Literacy skills	Educated, ability to read and write, ability to keep accounts	79
Rhetoric skills	Natural communicator, vocal, authoritative, ability to persuade or convince others, knows how to speak in public	55
Knowledgeable	Aware, clever, one who knows more	52
Personal skills	Skills for facilitation, discussions in public meeting, highly capable to take new initiatives	45
Committed to work	Active in social and community activities, trustworthy	45
Broad networks	Who has access and contacts at different places	27
Local elites	A combination of all or many of the attributes listed above many a times coupled with comparatively better economic position than the other households in a village.	21

(Source: own survey, answers by 82 women)

In both CFUG, women perceive that these key attributes are mostly found in men. Indeed, men are more likely to be literate, and tend to have more experience with public deliberations, given their traditional role as the household’s voice in the public sphere. Men are also seen as “more knowledgeable” regarding matters that affect the whole community. As men are more likely to have attended formal schooling, they tend to claim control over the committee, not least based on their literacy skills (Lachapelle et al. 2004; Behera and Engel 2005). Women thus tend to feel inadequate to become members of the executive committee, and feel that they cannot contribute to the decision-making process:

I am uneducated. The secretary and treasurer [both men] are educated and they take care of everything and inform me. I say "ok" to their decisions.
[Woman president of the executive committee, Dugur]

This perception of women being unqualified is widely voiced by respondents during interviews and group discussions. This is significant given that in Dugur 6 of the 12 members of the executive committee are women, while in Majuwa 3 of the 9 members are women. Although women are in effect members of the executive committee due to legal requirements and to ensure good relations with the District Forest Office, this has not yet been fully integrated socially or understood as an asset. Such inconsistencies between perceptions and reality are a sign of transition, of a renegotiation of which practices are deemed desirable. Indeed, practices and social relations are not mechanically reproduced but mediated by experiences and their interpretation. Both men and women might be ambivalent when faced with women in the executive committee, unsure of what to make of this new situation, what meaning it has and how it will be used by various groups. The situation is thus contested, being seen by some as an opportunity to experiment, while it is opposed by others. In the following quote, this ambivalence is implicit, in that the woman has not (yet) resigned, despite her husband's disapproval:

I was appointed for general member post. When I told my husband that now I am an executive member of our CFUG, he asked, "Why do you have to be a member? Now, who will do the household work?" Every time I attend meetings, he gets angry with me. I am going to resign. [Woman member of the executive committee, Majuwa]

Thus, although ensuring representation of women in the Executive Committee can provide them with a platform to voice their views (Tinker 2004; Upadhyay 2005; Vissandjee 2005), in Majuwa and Dugur it has not allowed women to effectively influence decision making (yet). This might make fulfilling quotas lead to little more than tokenism. However, such a summary assessment may overlook more subtle processes that are on-going and whose outcome is open. Indeed, the information and experiences women have as members of the executive committee are likely to open up new possibilities for the way they see and react to the world around them (Fussel 1996; Mohanty 2002 cited in Cornwall 2003:1329). This is not only the case for the women, but also for the men in the executive committee and the community at large, all of whom are experimenting with this new arrangement. This opportunity for learning and experimenting with leadership is recognized by women:

Women who are in executive committee also benefit. These women learn how to speak and act. Many of them have in fact increased their verbal skills of communication and gained confidence. They can now say 'two things' about community forestry and convince others about forest protection and management. [MT, Majuwa]

Including women as members of the executive committee is thus likely to affect not only management decisions (Agarwal 2009), but, over time, also induce shifts in values and beliefs. Indeed, despite the symbolic way in which only literate people are considered legitimate to take decisions in the Executive Committee (see also Nightingale 2005), illiterate women, through their daily interactions with the other members of the Executive Committee learn “how to speak and act”. This apprenticeship enlarges their repertoire of social interaction modes, thereby redefining their potential roles in the community.

Perception of the general assembly

The General Assembly is gathered once or twice a year by the executive committee to discuss and decide about forest management measures, to amend or revise the Forest Operational Plan and possibly to elect new members to the executive committee. It thus can be an important platform for discussion, negotiation and contestation regarding proposed measures and impending changes. Although the general assembly tends to be captured by a few members of the executive committee in terms of setting agendas, generally discussions are deliberative, communicative and responsive to members (Pokharel and Ojha 2005).

Of the interviewed women, 43% usually attended the general assemblies. This is significant since the women are not aware that it is their right to attend the general assembly since their name is included in the membership list. Instead, they have claimed and established their right by attending. This is a creative act (Dalton, 2004) by these women: they adapted their habitual practices as they perceived it as necessary. Over time men have tacitly acknowledged their right to be in this public space. Thus, through their acts, the women have renegotiated what is considered as acceptable behavior:

Things are much better now, more women go to the general assembly. Husbands do not argue much now if women go to meetings. The community has also started to value women in some ways. [DT, Majuwa]

Whereas attendance at the general assemblies is increasingly becoming the norm, it does not necessarily translate into active participation in the debates. Most of the women (65%) said that they prefer to “just sit and listen”. However, the passive behavior of some of the women should not imply that they feel that they have no right to speak up. The vast majority of interviewed women (88%) do not see it as inappropriate for women to speak up during meetings. Still, they admitted that it requires a lot of courage, communication skills and an encouraging environment to express opinions in a formal, public forum.

However, here too, a snap-shot approach to assessing the currently dominant behaviors should not hide the fact that there is an underlying process of experimentation. There is a significant minority of women (35%) who speak up during meetings and dare to ask questions. These women are engaged in creative action, in renegotiating social norms.

Through their behavior they not only improve their own skills, but may induce shifts in the behavior of others and the norm of what is expected of women:

It has not been long that women started to attend the General Assemblies. Earlier, there were very few women. Nowadays, the society anticipates that women come and attend the General Assemblies. This is a big improvement. Things have slowly changed but they have changed on a positive note. I am sure in coming days, women will gain more confidence and will not feel shy to talk what is going on in their minds. But this will take time. [PT, Dugur]

The women generally might still refrain from voicing their views, for a variety of reasons e.g. deference to those who 'know', to safeguard social cohesion, due to time constraints set by their household duties or because they do not expect to be listened to. Still, some women are experimenting with various ways to make their views heard during the general assembly. In this process they gain insights regarding both argumentation and successful behaviors, not least by observing the men and women who successfully object to a proposition by the executive committee and learn to be assertive:

Normally, people do not listen carefully when a woman speaks in the general assembly. Even sometimes, people pretend that they listen to women, but they do not include women's issues into final decisions. If a woman has to get herself heard, she has to act very, very assertively. [BT, Dugur]

Indeed, over a third (35%) of respondents stated that they exert "some" influence, especially in decisions regarding the duration and timing of forest closure, measures to protect the forest and rules about the distribution of forest products. Agarwal (2001a) has termed it "activity specific" participation. These decisions affect the women's abilities to satisfy the needs of their households and they feel self-confident about their right to ensure that their needs are met, e.g. by ensuring the protection of the forest against intruders:

Women will protest to the executive committee if forest protection is questioned. If there were some illegal entry to forest, and if the executive committee did not pay proper attention to such thefts, then they knew that women will raise issues against that. [LT, Majuwa]

The fact that there are certain areas where women are influencing decisions can be seen as indicating the start of a process that might come to include a wider range of issues over time. But this process is open, and there is no certainty that women's participation might not be limited to areas related to their domestic responsibilities (Agarwal 2001a). The women themselves see room for improvement, as only 43% were "completely satisfied" with their current level of influence on decisions. Thus more than half of respondents are unsatisfied either with their ability to influence decisions generally, or with the types of decisions they can influence. Implicit in their assessment is the expectation that they 'should' be able to have more influence, thus questioning the traditional norms that leave such decisions on community matters entirely to men.

Women expressing their views through direct consultation

If women hesitate to take the initiative and voice their views in a public setting, it might help if a member of the executive committee asks them directly or personally. Such a consultation might be undertaken either during the general assembly or before. In the survey, women were thus asked if they had been consulted and asked to express their views. The majority of respondents (56%) said that they had never been consulted. Of those who were consulted, about a third (28%) did not voice their ideas. However, nearly two-thirds (72%) said that if consulted, they do voice their ideas and concerns.

The acceptance that women (sometimes) should be consulted before decisions are taken is in itself an important step. However, there is still the understanding that women need to be consulted on certain topics only, such as times of forest closures or measures to protect the forest. This means that women's views are rarely asked for on issues such as time and date of a general assembly, use of forest funds or the choice of species to be planted (see also Paudel 1999)

But women do not necessarily wait to be asked. Indeed, if they do not approve of a decision, nearly 23% of respondents will personally ask questions to a member of the Executive Committee during the General Assembly. As the following quote shows, there are instances where women do voice their views and directly address the executive committee, requesting a change in a decision that had already been taken:

Last year, the executive committee decided to open the forest during Dashain [one of the most important festivals in Nepal]. I did not like the timings. This is a festival time, I have to clean my house, entertain my guests and cook different kind of food in addition to my daily routine of work. I am sure I do not have much time to go to forest and collect the forest products. I told that I did not like it and asked the executive committee that the timing should be changed. We need time to celebrate Dashain. Later, the executive committee decided to open the forest a week before Dashain. [ST, Majuwa]

In this example the woman's resistance was based on her domestic duties, and changing the date to allow women the time to prepare for the festival benefited both men and women. Nonetheless, it is an example of a woman speaking up in a public space and self-consciously arguing her position. Given that the decision was later changed to accommodate her concerns, it will give her a feeling of self-efficacy. Such seemingly small incidents open options that until recently were unthought-of: a woman voicing her views in public and changing a decision, no matter how small. As the process was tacitly sanctioned by the executive committee and community at large, it is conceivable that women might be emboldened to raise their voice on other matters too. Thus, both the fact that the woman was willing to protest in a public space, and the fact that the executive committee accepted her protest as legitimate, in effect giving her a say in the decision, are significant (see also Nightingale 2006). According to local cultural norms, this was not an acceptable behavior by the woman or the men. Women were expected to obey their husbands, father-in-law and other decision makers, who in

return were expected to listen to women's views or preferences. Yet the woman did protest the decision in direct and public opposition to the executive committee. Such an incident shows how gender norms are contested as the women redefine in what spaces and contexts they can voice their views. It is also an example how the women can use community forestry as a platform to contest gender roles: using the legitimate reason of an upcoming festival with its domestic workload, the women questioned the wisdom of the executive committee's decision.

Conclusion: Community forestry as a supportive frame for processes of social change

The results of the survey confirm previous reports that women's participation in the CFUG seem to be mostly tokenism, i.e. that they are often co-opted as members of the executive committee. However, the women's perceptions as voiced in the interviews and group discussions, point towards the need for a more nuanced analysis to understand the underlying dynamics. This type of analysis requires a complementary mix of methods. Especially the in-depth interviews and the group discussions allow shedding light on subtle processes that are missed by indicators such as the number of women in the executive committee or the share of women attending the general assembly. The interviews and discussions showed that women's perception tend to be process-oriented rather than a snap-shot assessment of a situation at one point in time. Thus, if the goal is to understand progress in women's involvement in community forestry, it would be helpful to ensure that evaluations include participatory methods. These will provide the information needed to adequately interpret quantitative data, since the same figure can be the result of very different processes.

The women involved in this study do not see themselves as passive casualties of male domination. Some of them take the opportunities offered by the CFUG structures and actively shape their social world by renegotiating their rights. Evidence of the processes of change can be found in incidents that might seem minor, but through such subtle shifts, some women experiment with alternative behaviors, contest traditional norms and increasingly assert their rights. As a result women's attendance at the general assembly has become an expected behavior, and voicing her views in a public forum is no longer seen as an indecent activity for a woman. Using a public forum to demand that a decision made by the executive committee be changed might still be rare. But it is an achievement in a society where, traditionally, people of authority are not questioned. Some women are challenging decisions, experimenting with voicing their views in public, thus gradually building their self-confidence and their feeling of self-efficacy, even if they encounter occasional setbacks. This process might be slower than development agents or policy makers would wish, but that does not make the progress less significant for the women struggling with the complexities of real life.

Externally-induced changes in structure such as quotas for women in the executive committee are important supportive measures to create an institutionalized space for women's participation. Women, as well as other marginalized groups (Nightingale 2005), can then use this space to experiment with new behaviors. Such experiments can add up, and in time induce shifts in what is perceived as acceptable or desirable by both men and women. It thus seems simplistic to expect a change in the behavior of women as soon as structural changes are implemented. The fact that all the women do not immediately assert their right to equal participation should not hide the fact that the information women receive and the experiences they make as members of the executive committee can lead to a revised understanding, opening up new possibilities for the way women see and act (Fussel 1996). These are indicative of how microsocial change processes are initiated and sustained by creative acts taking place in daily encounters (Dalton 2004), e.g. during meetings of the executive committee. These results mirror Nightingale's (2006), which show that gender is a process: subjectivities are produced and shift over time. Gender is not constant but is transformed during daily interactions of people and the CFUG provides a valued forum for such interactions.

Thus achieving a truly community-based natural resource management is generally a slow and continually evolving process (Flint et al. 2008). It may be a question of the glass being half-full, and we do not mean to be unduly optimistic. This renegotiation of meanings and possibilities are contested and progress is not expected to be smooth, setbacks are bound to happen. Furthermore, the outcomes of these social processes are not determined a-priori, and it is not inevitable for disadvantaged groups to climb the "ladder of participation" (Agarwal 2001a).

However, we see the CFUG as a crucial platform for this negotiation process, a process which needs a forum of public deliberation, where the traditional social order can be contested. The CFUG is such a public forum. The external pressure to be inclusive limits the possibilities to exclude disadvantaged groups. The CFUG is also focused on a natural resource that is essential for the livelihoods of all in the community. The stakes are thus high, increasing the likelihood of engagement and the need to find ways to accommodate differences, to resolve disputes and to find creative approaches to conflict resolution. This is not self-evident, especially in times when the national politics are unruly, markets unreliable, income opportunities unstable and livelihoods precarious.

The value of a community-based approach is its ability to raise the level and quality of dialogue and participation in natural resource management (Flint et al. 2008). At the same time it is important to recognize the difficulties associated with accommodating the different needs and priorities of various groups, and the influence of complex and informal social norms related to caste, wealth, age and gender. The men and the women, the elite and the low-caste need time to experiment with new behaviors, learning how to assert their needs while accommodating others', how to debate in public, and how to resolve conflicts (Nightingale 2005). They need time to recognize the

opportunities to improve the community's well-being and the benefits of including women's knowledge of forest ecology. The CFUG should thus be understood not only as an institution focusing on forest management, but also as a frame for a social process, providing both men and women the opportunity to explore new modes of interaction, identifying common interests. This wider conceptualization of a CFUG strengthens its ability to contribute towards the dual process of promoting the ecological health of the forest and democratic processes within the community. Both are processes that need time: they are unfolding and not to be hurried.

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PUBLICATIONS

Published papers (peer reviewed)

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PRESENTATIONS AT CONFERENCES

Invited panel presentations

- Giri, K. 2009. The role of students from developing countries in the internationalization and their importance in the development policy context. Panel presentation at the Conference 'Internationalisation and development policy dimensions at universities and universities of applied sciences', held April 16-17, 2009 in Vienna, Austria.
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- Giri, K. 2009. Women as forest managers: Coping, contestations and change. Conference on women's empowerment and development: Meanings, manifestations, and contestations, held June 19-20, 2009 in Brighton, UK by the Institute of Development Studies.
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WOMEN AS FOREST MANAGERS: THE EFFECT OF MEN'S OUTMIGRATION

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Dedicated to my parents

Reshama GIRI and Ghana Shyam GIRI

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I am responsible for misrepresentations and glaring omissions, if any.

Prologue

The road towards the final version of this thesis had been an iterative learning process for me. Three years of PhD that at times felt motivating, exhausting, lonely, but now feels endearing and gives me a sense of accomplishment, of a learning process.

Trained as a forester, my interest in gender and social issues got reinforced while working with rural communities in Nepal. Forestry, broadly viewed as a technical science, is ultimately a social issue in Nepal, where its management involves the complexity of sustaining livelihoods, preserving biodiversity, and challenging discriminating power relations. Particularly, the rural women have always fascinated me. I got intrigued, and puzzled thinking how the rural women seek novel situations, in times that seem so challenging. The lives women lead, their adaptive capacity despite the struggling livelihood and discriminatory limitations, have always inspired me to look for positive change despite the difficulties.

I believe that the goal of any research is to contribute to the transformative process of society. I chose to do this by illuminating discussions on social process analysis and adaptive governance of natural resources, with an explicit focus on women as adaptive managers. I hope that this thesis makes a positive contribution in this direction.

Abstract

The community forestry programme of Nepal aims to strengthen the participation of disadvantaged communities, such as women, in the management of natural resources. However, even after three decades, women's active participation remains a challenge. Empirical studies point to various discriminating social structures and mechanisms as factors limiting women's participation. The current trend towards men's outmigration, as observed in the Mid-hills of Nepal, is changing these social structures and might offer new opportunities for women's engagement in community forestry. This research investigates how the dynamic social context brought about by men's outmigration affects women's participation in community forest management.

Employing a case study approach, data were collected from four community forest user groups in the Mid-hills of Nepal, using key informant interviews, a survey, in-depth interviews and focus group discussions. Theoretical concepts such as feminism, gender, and the agency-structure debate were used to guide data analysis.

The case study shows that men's outmigration can increase women's participation in community forest management. However, different structural factors, especially family composition, mediate this influence. In the social context, that is understood as dynamic, women use various microsocial processes to influence forest management decisions as well as shape their roles and rights. Moreover, the findings indicate the need of understanding women's participation as a transformative process that is adaptive and responsive to the changing social context. This process is not well captured by quantitative surveys or statistical data. To adequately assess the progress in women's participation in the management of community forests, complementary qualitative methods need to be used.

These findings allow deriving theoretical, methodological and policy recommendations to support women's empowerment and their effective participation in the management of community forests. At the theoretical level, the study indicates that a mix of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. At the methodological level, it shows the need to employ a carefully designed mix of quantitative and qualitative methods to capture the various dimensions of women's participation and thus enrich our understanding of empowerment processes. At the policy and management level, these findings advocate the need to understand society as a mutable context and analyze the impact of policy measures within a reflexive and adaptive framework. Thus, a nuanced look at social processes is essential to ensure that increasing women's active participation in programmes like community forestry is achieved through a socially just change process that is both adaptive to the changing social context and transformative against discriminating power relations.

Keywords: Men's outmigration, participation, community forest management, women's empowerment, social processes.

Kurzfassung

Das Programm der Gemeinschaftswälder in Nepal zielt darauf ab, die benachteiligten Bevölkerungsgruppen, wie z.B. Frauen, in Entscheidungen über die Bewirtschaftung der natürlichen Ressourcen einzubeziehen. Nach drei Jahrzehnten ist die Bilanz jedoch nicht so positiv wie erhofft. Empirische Erhebungen haben eine Reihe diskriminierender sozialer Strukturen identifiziert, die die aktive Beteiligung der Frauen einschränken. Derzeit wird in den mittleren Höhenlagen Nepals der Trend beobachtet, dass Männer auf Arbeitssuche auswandern. Die führt zu Änderung in den sozialen Strukturen, und kann neue Möglichkeiten für die aktive Beteiligung der Frauen in der Waldbewirtschaftung bieten. Die vorliegende Studie analysiert daher wie sich die soziale Dynamik, die durch die Auswanderung der Männer verursacht wird, auf die aktive Beteiligung der Frauen in die Entscheidungsprozesse zur Bewirtschaftung der Gemeinschaftswälder auswirkt.

Im Rahmen einer Fallstudie wurden qualitative und quantitative Daten in vier Gemeinschaftswaldbenutzergruppen (community forest user groups, CFUG) in Nepal gesammelt. Es wurden Interviews mit Auskunftspersonen, eine umfangreiche mündliche Befragung, Tiefeninterviews mit Frauen und Fokusgruppendifkussionen abgehalten. Als theoretische Konzepte wurden feministische Theorien, Gendertheorien, Agency- und Strukturtheorien herangezogen.

Die Ergebnisse aus der Fallstudie zeigen dass die Auswanderung der Männer die Beteiligung der Frauen in den Entscheidungsgremien der CFUG erhöhen kann. Jedoch hängt diese Beteiligung von einer Reihe Einflussfaktoren ab, allen voran die Familienstruktur (insb. die Anwesenheit erwachsener Männer). Im sozialen Kontext, der als dynamisch angesehen wird, verwenden Frauen eine Reihe mikrosozialer Prozesse um die Entscheidungen, die den Gemeinschaftswald betreffen, zu beeinflussen. Auch verwenden sie diese Prozesse um ihre Rechte und soziale Rolle schrittweise zu verändern. Die Ergebnisse weisen darauf hin, dass es wesentlich ist, die Beteiligung der Frauen nicht ausschließlich anhand von leicht messbaren Indikatoren zu beurteilen, sondern die Beteiligung als Prozess zu sehen, ein Prozess der die Rahmenbedingungen (z.B. die politischen Unruhen) berücksichtigt. Dieser Prozess wird in den Statistiken (z.B. Anzahl der Frauen in Führungsgremien, Anteil der Frauen in Versammlungen) schlecht abgebildet, so dass er übersehen werden kann.

Aus der Fallstudie wurden theoretische und methodologische Anregungen, sowie Politikempfehlungen abgeleitet. Die Studie zeigt, dass eine Kombination aus mehreren Theorien, sowie aus quantitativen und qualitativen Erhebungsmethoden, erlaubt, komplementäre Sichtweisen auf die Fragestellung zu werfen. Erst dadurch wird ein differenziertes und ganzheitliches Verständnis von Prozessen ermöglicht. Bezüglich der Politikempfehlungen unterstreicht die Studie die Bedeutung von lernenden, sich adaptiven Politikprozessen, da nur diese eine Anpassung an die sich verändernden Bedingungen (innerhalb und außerhalb der Benutzergruppe) sicherstellen.

Table of Contents

Thesis structure	10
PART A: WOMEN AND COMMUNITY FORESTRY	11
1 Overview	12
2 Background: Community forestry in Nepal	14
2.1 Nepal in context	14
2.1.1 Farming system and forest resources	14
2.1.2 Women in Nepal	15
2.1.3 Men's outmigration	17
2.1.4 Research on left-behind women and variability	18
2.2 Community forestry and participatory decision-making	20
2.2.1 Community forestry and the concept of CFUG	20
2.2.2 Women's participation in managing community forests	21
2.3 Men's outmigration as a factor in women's participation in a CFUG	24
3 Theoretical concepts related to women's participation in natural resource management	26
3.1 Feminist theories	26
3.2 Gender theories	28
3.3 Theories relating agency and structure	30
3.4 Women's participation as a gendered process with interplay of agency and structure	31
4 Methods	33
4.1 Research strategy: a multiple case study	33
4.2 Research design: an iterative process	34
4.3 Start of fieldwork	36
4.3.1 Site selection	36
4.3.2 Selection and orientation of research assistants	36
4.3.3 Pre-testing the questionnaire	37

4.4	Data collection	37
4.5	Data analysis	38
5	Results: Summary of the papers	40
5.1	Paper I - Development and status of community forestry governance in Nepal	40
5.2	Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal	41
5.3	Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?	43
5.4	Paper IV - Nepali women using community forestry as a platform for social change	45
6	Discussion and perspectives	47
6.1	Summary of the present dissertation	47
6.2	Theoretical implications	48
6.3	Methodological implications	50
6.4	Policy and Management implications	52
6.5	Policy and Management implications	52
6.5.1	Dynamic social context and changing power relations	52
6.5.2	Participation as an adaptive governance process	53
6.6	Perspectives for future research	55
7	References	57
	PART B: PAPERS	73
	Paper I	74
	Paper II	101
	Paper III	113
	Paper IV	127
	Curriculum Vitae	145

Thesis structure

This thesis comprises two constituent parts. Part A presents the overall context, reviews the relevant literature on women and community forestry, details the theoretical and methodological approach, and summarizes the results and implications. Part B comprises the following four papers:

- I. Koirala, R., K. Giri, and B. Pokharel. 2008. Development and status of community forestry governance in Nepal. Proceedings of the Conference on "Forestry in a climate of change", the 2008 National Convention of the Society of American Foresters, held on 5-9 November 2008 in Reno-Tahoe, Nevada, USA.

Rajesh Koirala and I wrote the paper with inputs from Bharat Pokharel.

- II. Giri, K., B. Pokharel, and I. Darnhofer. 2008. In the absence of their men: Women and forest management in the Mid-hills of Nepal. In *Environmental Economics and Investment Assessment II*, eds. K. Aravossis, C.A. Brebbia and N. Gomez, pp. 295-304. Southampton: WIT Press.

I wrote the paper, with inputs from Bharat Pokharel and Ika Darnhofer.

- III. Giri, K., and I. Darnhofer. Outmigrating men: A window of opportunity for women's participation in community forestry? (Accepted with revisions, *Scandinavian Journal of Forest Research*)

An earlier version of this paper was presented at the 2nd Gender and Forestry Conference, held on 15-18 June 2009 in Umeå, Sweden.

I selected the topic of the paper, analyzed the data and wrote a first draft. This first draft was commented on by Ika Darnhofer. After I provided a revised draft, Ika Darnhofer contributed to polishing the text.

- IV. Giri, K., and I. Darnhofer. Nepali women using Community Forestry as a platform for social change. (Accepted with revisions, *Society & Natural Resources*)

An earlier version of this paper was presented at the 4th Young Scientist Forum, held on 29 October 2008 in Vienna, Austria. A later version of this paper was presented at the 'Development Matters Forum', Centre for Development Research, University of Vienna, held on 14 May, 2009 in Vienna, Austria.

The topic of the paper and analytical angle was proposed by me, with some additional suggestions by Ika Darnhofer. I analyzed the data and interviews and wrote the first draft. Based on comments by Ika Darnhofer, I revised the draft. Together we worked to finalize the paper

PART A: WOMEN AND COMMUNITY FORESTRY

1 Overview

While forests are a classic example of human-ecosystem interdependence, approaches to understand the association has varied greatly over the last few decades. With changes from top-down to bottom-up approaches (FAO 1978; Cohen and Uphoff 1980; Chambers 1983; Brownlea 1987; Farrington and Martin 1988), local communities have increasingly come to be considered as key stakeholders for sustainability (Agrawal and Ostrom 1991; Gilmour and Fisher 1991). As a result, the need to involve them and ensure their influence in shaping forestry policies became evident. This led to the formulation of various participatory forestry programmes around the globe.

Nepal is at the forefront of experimenting with the global theme of management shifts (Mahapatra 2000; Giri 2005), where state-based regulations are decentralized, power of decision-making are devolved to the local people, especially regarding the management of forest resources. At present, Nepal has gained worldwide recognition for its community forestry programme (Arnold 1998; Malla 2000; Chakraborty 2001; Pokharel 2004; Pokharel et al. 2005). Despite such significant leaps, challenges remain, particularly in terms of achieving significant women's participation in forest management (Kellert et al. 2000; Agarwal 2001a,b; Neupane 2003; Timisina and Paudel 2003; Buchy and Subba 2003; Upadhyay 2005). Indeed, achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women (Agarwal 2001a; Lama and Buchy 2002; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009).

Concomitantly, in the Mid-hills of Nepal, a trend of men's outmigration has been observed (APROSC 2003; NIDS 2007). This trend has led to changes in social relations and structures, leading to "feminization of communities" (Gill 2003; Pully et al. 2003; Kaspar 2006). The changes include the availability of remittances, an increased workload for women as well as a shift in women's responsibilities and their participation in the public sphere. Studies on these effects have shown a high level of heterogeneity in how communities adapt. In some communities, families without a male-head of household have lost access rights to common resources, while in other communities women have achieved more decision-making powers (Verma 2001; Hadi 2001; Zachariah and Rajan 2001; Haas 2007). Most of these studies have, however, focused on the effect of men's outmigration on women's role within the household (Khaled 2002; Kaspar 2006). The question thus remains whether and how men's outmigration affects women's participation in the management of common natural resources. Given that community forests are an important resource for women, the ability to articulate their needs and priorities, and to ensure that these are met is of particular importance. Hence, the overall goal is to assess which vital conditions and processes can increase women's participation in community forestry.

Based on this background, the central questions that guided this study are:

- What is the current status of community forest governance in Nepal? (Paper I)
- In what ways does men's outmigration affect women's participation in the management of the community forest? (Paper II)
- What factors affect the extent to which women participate in the management of the community forest during men's outmigration? (Paper III)
- How do women shape their social role in the public sphere so as to increase their participation in community forest management? (Paper IV)

This thesis is thus concerned with analyzing whether and how men's outmigration facilitates the process of women's active involvement in the management of community forests. The effects of men's outmigration on women's ability to influence decision-making, their public status and factors leading to heterogeneity need to be better understood. To contribute to this understanding, a combination of quantitative and qualitative methods was used, and a mix of theories was used as a guiding framework for the inquiry.

The following section presents the background and relevance of the study. This is followed by a section where theoretical approaches analyzing women's involvement in natural resource management are explained. The methods section presents the data collection and analysis techniques used in the study. Subsequently, the results are presented by summarizing of the papers I-IV. Thereafter, these results are used up for a broader discussion regarding women's participation in natural resource management. Finally, some thoughts for future research are recommended.

2 Background: Community forestry in Nepal

2.1 Nepal in context

2.1.1 Farming system and forest resources

Nepal is a landlocked country situated between China and India. Topographically, Nepal can be divided into three ecological zones (see Fig. 1), the Mountains (35%), the Mid-hills (42%) and the Terai (23%), each accounting for 7.3%, 44.3% and 48.4% of national population respectively (CBS 2001). In 2007 Nepal had approx. 29 million inhabitants, half of which are women (CBS 2001). More than 80% of Nepal's population lives in rural areas (CBS 2001). Most of the Nepalese are poor with an estimated 38% of the population living below the poverty line (Pradhan and Shrestha 2005:1) at a yearly per capita income of US\$457 (Basyal, 2008).



Figure 1: Map of Nepal (Source: maps/npcgis/NatBio00002.jpg)

Agriculture is the mainstay of the economy, providing livelihood for three-fourths of the population and accounting for 38% of GDP. Agriculture is subsistence based. Agriculture is highly dependent on rain and its productivity has not increased significantly during past decades (FAO 2000). Increasing agriculture production has been hampered by two reasons (ICIMOD 1998). Firstly, farm sizes are very small and land holdings fragmented: the average landholding size per household is 0.96 hectare, with an average of 4 parcels per holding (CBS 2001). In the Mountains and the Mid-hills of Nepal, a majority of households (67.5% and 53.6% respectively) have farm sizes

between 0.025 and 0.051 hectare (Munakarmi 1996 in ICIMOD 1998). Notably, out of the three ecological belts, land fragmentation is the highest in the Mid-hills (0.66 hectare) because land is mostly divided into terraces to counter erosion effects. Secondly, given the high elevation, steep slopes, shallow soils, and high precipitation, intensified cropping is not possible in the Mid-hills and the Mountains (ICIMOD 1998).

A majority of rural households thus depends on livestock and forest resources to supplement their livelihood. Livestock is a source of food, of income and a means of non-cash exchange. It also provides draught power, organic manure for crop production, and is used for transportation. The livestock population in Nepal, in relation to the arable land, is one of the highest in Asia (ICIMOD 1998). The livestock population in Nepal is estimated to be about 6.9 million cattle, 4 million buffaloes, 6.9 million goats, 0.7 million sheep, and 0.9 million pigs (CBS 2001).

Nepal has 3.9 million hectares of forest, covering 27.3% of the country (FAO 2005). Forests provide basic subsistence needs such as fuelwood, fodder, bedding material for animals and to some extent timber. Fodder from forests satisfies about 37% of the total livestock fodder need, and the fuelwood from forests meets about 81% of the total fuel consumption (WECS 1997 in FAO 2000). About two-thirds of households rely on fuelwood for cooking and heating, and an average household spends about 50 person-days for fuelwood collection in a year (Baland et al. 2004). Fuel needs differ in different communities depending upon altitude, climate, and use of agricultural residues. Using kerosene or liquid petroleum gas requires an additional cost of transporting and cow dung cakes are mostly used for manure. Fodder collection is more dominant in the Mid-hills. Therefore, most of the forests in the Mid-hills are managed for fuelwood and fodder and about 65% of these forests have predominantly small-sized timber (Winrock 2000:7). Poor people heavily depend upon forest resources to fulfil their basic (subsistence) needs for fuelwood, forage, timber, medicines etc, as they do not own private forests or adequate agricultural land (Adhikary and Ghimire 2002).

For more than a decade, Nepal has experienced internal conflicts, initiated by a group calling themselves "Maoists". Starting in 1996, Nepal has undergone severe political instability (Taras 2006). In 2006, after a series of joint meetings between Maoists and the Government of Nepal, Maoists stopped the guerrilla-war and became a political party in the mainstream development. At present, a working parliament, representing all the political parties, including Maoists, is governing the country.

2.1.2 Women in Nepal

The national constitution of 1990 declares that the State shall not discriminate against citizens on the basis of religion, colour, sex, caste, ethnicity or belief. And yet, various customs based on socio-cultural ideology are discriminating in nature. Nepal has more than 100 ethnic groups (CBS 2001) and women's status varies among these groups. Women of Tibeto-Burman origin generally enjoy more freedom than those of Indo-Aryan origin (APROSC 2003). However, it is difficult to generalize the situation of women in

Nepal, as different ethnic and cultural groups in the country treat the various roles of women with differing emphasis and priority (UNICEF 2006:61).

Men's and women's roles are socially and culturally determined (Pyakuryal and Suvedi 2000:57). In Nepal, a common understanding is that men are responsible for earning economic resources (such as money, livestock etc.) to support the family. Most of the work that requires public contact (e.g., attending public meetings) is performed by men. Also, some activities such as ploughing, fixing a roof, slaughtering animals and felling/splitting large trees are performed exclusively by men (Chhetri 2001). Women are responsible for maintaining the household chores and rearing of children. A study by Bhadra (1997 in Chhetri 2001) states that women perceive themselves as nurturers and men as providers despite spending more time than their men in productive activities.

Women's positions in society are mostly determined by their relation to men, i.e. through their position as daughter, wife, mother etc. Women's inferior status is mainly determined by cultural ideology, symbolism and socio-structural arrangements (Shrestha 1999, ICIMOD 1999). One widely practiced element of cultural ideology is the preference of son over daughter (during child-birth), with Nepal having one of the highest indices of son preference in the world. Sons not only pass on the family name, but also represent insurance for parents in their old age, and can carry out important rituals when parents die (UNICEF 2004:51). Daughters are not allowed to carry out such rituals in Indo-Aryan ethnic groups. In some Tibeto-Burman groups, such as the Gurung, a son-in-law is required to conduct the crematory rituals for his in-laws, thus enhancing the role of a daughter.

Existing symbolism based on purity concepts can also implicitly devalue women (such as defilement and pollution). As an example, women are considered impure when menstruating and during childbirth and are culturally forbidden to enter kitchens and temples. Women have only limited access to resources and only limited control over those they can access. Of the total landholdings, women own only 8.1% and the average size of their land is just about two-thirds of that an average male holding (UNICEF 2004:55). Marital status determines female's access to land and other property. A married daughter is not legally entitled to inherit her parent's property, whereas a wife is liable to entitle her husband's property. But a married woman can only claim her share of her husband's property, if he fails to take care of her needs, fails to provide her with food and clothing, or throws her out of the house (UNICEF 2006:67). Therefore, the daughter not only forfeits her right to parental property but also has only limited rights to her husband's property. Women also lag behind men in terms of education. Women's literacy is 38.9% compared to 63.5% for men (CBS 2001).

Despite the differences in social roles and meagre access to resources, women's contribution to both farm and non-farm activities is significant. Studies on family time-allocation have provided some estimates of rural women's overall contribution to the household economy (Sontheimer et al. 1997; Azad 1999 in IFAD 1999). In the Mid-hills, women were found to do equal to or more agricultural work than men (Sontheimer et al.

1997). In another study, women were found to work about 16 hours a day, compared to men who worked for about 9 to 10 hours (Azad 1999). Likewise, collection of forest products, mainly fuelwood, is primarily women's responsibility (FAO 1997), but in many places men are also involved. A study by Buchy and Subba (2003:315) indicates that both women and men identified fodder collection as one of the most laborious tasks. Many women reported spending more than four hours a day on it.

The work burden of women in Nepal is higher than the global average, not least because the participation of women in productive activities (informal trade) is one of the highest in the world (UNICEF 2004:52). Additionally, IFAD (1999), in a study undertaken in the central Mid-hills of Nepal, concludes that women's workloads are also increased by the geography and infrastructure, men's outmigration and new activities promoted under development projects. Collecting fuelwood, water and fodder becomes much more tiring and time consuming in the Mid-hills and the Mountains of Nepal due to difficult terrain conditions and poor access to roads, markets and water supplies, and thus consuming more of women's time. Similarly, a study undertaken by the Asian Institute of Technology in 1999 (IFAD 1999) in three villages in Kavre Palanchok district, found that men's outmigration doubled women's physical work burden and also increased women's community activities, especially for those women without sons. Women-headed farm households have a hard time, particularly when male labour is not available for tasks such as ploughing, which is taboo for women. Finally, newly promoted development activities such as in the case of forest management, women were found to carry out pruning and thinning of trees and were also involved in raising fodder species, because men were often absent.

Women's position in Nepalese societies can, however, vary. Wealth can affect the division of labour as wealthier women delegate some responsibilities to employed labour (Buchy and Subba 2003; Rankin 2003). Age and position of the women within the family (e.g. daughter, daughter-in-law or mother-in-law) also can affect decisions on who does what (Bhatt et al. 1997; Shrestha 1999). Caste affiliation seems to have some influence on the role and status of women. For instance, among the (so-called) lower caste people, economic imperative seems to put women next to their men in power status (in the absence of economic disparity) and for their contribution in maintaining the family economy (Chhetri 2001).

2.1.3 Men's outmigration

Migration has been a widespread phenomenon across the world. Nepal has had a long history of outmigrating men (ESCAP 1995), and in some rural districts, up to 70% of men outmigrate (Seddon et al. 2002). Despite being a dominant phenomenon, this is one of the least researched and least understood issues in Nepal. While the migrants, their problems, earned income, networks, development etc. have received considerable attention and have been the subject of extensive research, the gender dimension of migration, particularly the source communities and those left behind, has been largely

under-researched (Rigg 2006). In Nepal, scholars have investigated the interrelationship between migration and poverty, the remittance patterns of the migrants, and the impact of remittances on poverty alleviation and rural development (Regmi and Tisdell 2002; Seddon et al. 2002; KC 2004; Thieme and Wyss 2005). However, few studies have attempted to tie economic changes to the social and cultural changes that arise due to migration and are reinforced by it (Rigg 2006). In this context, it is important to examine the gender dimension of migration as gender roles, relations and inequalities not only affect those who migrate, but also impact the economic and social situation in the sending communities. Indeed, when men outmigrate, they leave their wives, mothers and daughters behind in the area of origin. These left-behind women need to reorganise themselves and cope with new challenges.

2.1.4 Research on left-behind women and variability

Previous studies have indicated that men's outmigration can lead increasing independence to the left-behind women. In the absence of their male guardians, women may have better access to resources (Hadi 2001). Women may also face an expanded space where they can make their own decisions, develop their own coping strategies (Hadi 1999; Zachriah and Rajan 2001). This can lead to a (re)structuring of traditional gender roles and a modification of cultural values (Hadi 2001; Sadiqui and Ennaji 2004). It can lead to changes in the gender division of labour including a "feminization of agriculture" (Gill 2003; FAO 2006). Women's labour contribution to agriculture and in the household can be more visible to the family members, and therefore more appreciated, thus increasing their status (Zachriah and Rajan 2001). Sometimes, the absence of their husband makes left-behind women more active in community development activities and farming (Deshingkar and Sven 2004:27).

Research on "Gulf wives" (women whose husbands outmigrate to Arab countries) in Kerala, India, asserts increased autonomy and social status of women in the absence of their husbands (Zachriah and Rajan 2001). When husbands outmigrate, women can develop innate capacity for decision-making, not only within the household but also within the community. "The husband's absence, increased economic resources at the disposal of the wife and the expansion of space and communication in public affairs (such as banking, schooling of children) have all been instrumental in transforming a shy, dependent woman into a self-confident autonomous manager with a status quo equal to that of any man in the neighbourhood" (Zachriah and Rajan 2001:69).

Kaspar's (2006) research on labour migration and gender relations in Kalabag village in Nepal reveals disparate and temporary changes in left-behind wives' decision-making. Her findings showed that left-behind wives take on many of their outmigrated husband's tasks which increase their workload. And yet, their influence in decision-making is constrained by several factors such as household type (extended versus nuclear family), relevance of decision factor (strategic versus operational decisions) and duration of absence of their husbands. She asserts that though women's participation in

public affairs increases, this participation is limited to increased physical attendance only. Moreover, women's expanded role and decision-making reverts back to the original situation once their husbands return to home, except in financial management and presence at community meetings (Kaspar 2006:299). And yet, she reports that some left-behind women may participate more in decision-making after migration, than they did prior to their husband's outmigration (Kaspar 2006:295). It was also noted that the prolonged absence of men can allow women to become more vocal in village decision-making.

Karki and Bhattarai (2004) state that, during men's outmigration, women in the Mid-hills are forced to take up chores, traditionally done by the men. Women ploughed the fields, repaired and replaced roofing material on their houses, took care of livestock and did every household chores, which was otherwise done by the men (Karki and Bhattarai 2004:93). Such changes imply structural adjustment in society where women, due to the need to cope with men's absence, break traditional forms of gendered activities and take up new roles and activities. However, the extent of benefits that women derive during men's outmigration are determined by factors such as women's age, their relative position in family such as wife or mother (Sadiqui and Ennaji 2004), and their ability to successfully adapt to the changing roles (Khaled 2002).

However, other studies contradict such positive images (Gurung 1999; Verma 2001; Haas 2007). They assert that men's outmigration leads to increased burden of responsibility and labour and further marginalization of women (IFAD 1999; Gurung 1999; Gurung and Gurung 2002). Also, they point out that this increase in women's labour does not necessarily result in women's control over the products of that labour (Gurung 1999; Verma 2001). Though women acquired men's roles in their absence, they often did not acquire their authority and decision-making power (Kaspar 2006). Another aspect is that the effects of outmigration are often temporary, and the gender relations revert back to the initial situation, once the husbands return. Therefore, it is still unclear, under which conditions men's outmigration can lead to changes in gender roles, especially with respect to women's increased access to decision-making.

Although it is widely assumed that women experience increased financial gains due to men's outmigration, in many poor families, the absence of their husbands can create a lack of economic means and can also lead to destitution for many of the left-behind women (Sadiqui and Ennaji 2004). If remittances were used to hire farm labour that would lessen women's extra work (FAO 1995). However, remittances might have no effect in cases where the remitted income is used for different purposes such as buying land. In such case, migration hardly has the often assumed effect on changing norms on gender roles (Haas 2007:35).

2.2 Community forestry and participatory decision-making

2.2.1 Community forestry and the concept of CFUG

FAO (2006) defines community forestry as any situation which intimately involves local people in a forestry activity. Community forestry programme arose out of the discourses of ecological crisis and forest degradation in Nepal (Nightingale 2003:527). Community forestry in Nepal aims to cover the basic needs, especially for those who are most dependent on forest resources; to promote community development through the income obtained from the sale of the forest products; and to conserve forests. Community forests are managed through a system where local people control, manage and use forest resources for their own benefits (Acharya 2002; Adhikary 2002), i.e. local people are involved as decision-makers (Winrock 2002). Community forestry stands on: a) institutionalization of farm-forestry relations, b) devolution of rights from the state to citizens (Belbase and Regmi 2002) and c) full entitlement of benefits to local users (except in the Terai, where local people have to pay a small percentage of revenue to the State).

The rights linkages are institutionalized by forming a user group, called a community forest user group (CFUG). The Forest Regulations 1995 (HMG/N 1995) and the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) include a detailed description of how the community forestry programme is to be implemented. The process of handing-over the management (but not ownership) of the forest should start with a written application to the Department of Forest which then sends a technician to help the user group prepare the constitution. The forest "constitution" outlines the rules for the use and management of the community forest, the rules for identifying the forest users, the rules for establishing the executive committee as well as their respective rights and responsibilities. All the households that use a particular forest, as demarcated in the operational plan of the forest, can become members of the CFUG. Department of Forest recommends a standard procedure using which the general assembly (comprising at least one member of every household of the user group) can elect an executive committee through mutual agreement. The general assembly should hold the rights to decision-making and the executive committee's role is restricted to implementing the decisions taken by the general assembly. Once the constitution is agreed upon, it is submitted to the District Forest Office which registers the user group.

Once registered, based on inputs from forest users and with the assistance from the District Forest Office, the executive committee develops an operational plan for the forest. This plan describes the location and physical condition of the forest, and prescribes specific silvicultural prescriptions for protecting and improving the forest. It specifically describes what type of forest products can be collected and harvested and how and to whom benefits from the forest are distributed. After the District Forest Office

approves the application, the rights and responsibilities of forest are handed over to the user group, now called as CFUG.

Decision-making takes place at two levels in a CFUG: the executive committee and the general assembly of all users. The executive committee's role is more that of facilitating and implementing the decisions taken by the general users. An executive committee is understood as the representatives of the general users, and is meant to bring forth the concerns of the general users. An executive committee usually has between 11 and 15 members, but the number may vary depending on the context.

At present, 1,654,529 households are members of 14,389 CFUGs, which cover about 31% of the total forest area in Nepal (DoF 2007).

2.2.2 Women's participation in managing community forests

The basic concept of community forestry rests on the notion that forests should be managed by those who use them. Involving the real users of forest can incorporate their knowledge into forest management and motivate to sustain conservation. Women are the primary forest users since they are responsible for collecting most of the fuelwood, fodder, leaf compost and bedding as well as controlling grazing. Being primarily involved in the collection and management of forest resources, women have developed a traditional knowledge base about the management and utilization of their forest (Agarwal 2001b). Such traditional knowledge can play an important role in the conservation of different species and varieties depending on their usefulness to the community (Upadhyay 2005:229). Considering women's dependence on and knowledge about forest resources, women's participation is deemed essential for the sustainable use of forests and the management of community forestry programmes.

Men's and women's interests and incentives for environmental resource management can differ in many settings, partly because of their socially constructed roles, and partly because of their lesser property rights and gendered interests (Masika and Joeke 1997:10; Cornwall 2003). This can lead to differing needs and use patterns of forest products between men and women. Men's and women's interests and incentives for environmental resource management can differ even within a household. Paudel (1999, quoted in Upadhyay 2005) highlighted the different priorities of women and men in the use of forest products in Nepal. Women opted for fuelwood, fodder and grasswood, whereas men opted for timber, fuelwood, and non-timber forest products. Women were concerned about covering their daily consumption needs, which were supplemented by forest products. Men's priority was to use forest as a supplement to the household income. Similar results are put forth by Flickenger (2003 in Howard 2003) in her study of the use of plants in Western Ghats in India where men gather plants primarily for use in agriculture (fodder and mulch); while women use the plants more for household purposes (medicines, cleansers, fibre, food and tools). Thus women's needs and priorities must be incorporated into community forestry, to ensure a just allocation of benefits. Since CFUGs regulate the mechanisms to manage and use the forest

resources by devising certain rules and control mechanisms, women's participation in community forestry can provide an avenue where women can voice their needs, priorities and perspectives and design mechanisms to fulfil them.

The Government of Nepal has emphasised the role of women's participation in various Development Plans. The Forest Act 1993 underlines women's role in community forestry programme. Different measures are recommended in policy and practice to increase women's participation. As an example, one of the widely used provisions is to allot one third of the membership in the executive committee to women. Likewise, the Operational Guideline of the community forestry program 2002 (HMG/N 2002) stipulates that for each household that is a member of a CFUG, the name of two adults (a woman and a man) should be registered in the forest constitution. The aim of listing a man and a woman for each household is aimed at encouraging women's participation in forestry meetings.

To distinguish between different levels of participation, Arnstein's (1969 in Ananda 2007) proposed a "ladder of participation". This ladder provides eight rungs, whereby each corresponds to a specific extent of citizen's power in determining decisions. The bottom rungs of the ladder are (1) "manipulation" and (2) "therapy" which describe levels of non-participation. Here the objective is not to enable citizens to participate in planning or conducting programmes but to enable power holders to educate the participants, i.e. people are told. Rungs (3) "informing", (4) "consultation" and (5) "placation" denote to levels of tokenism that allow the chance to hear, to speak and to advise but lack the power to ensure that those views will be considered, i.e., power holders retain the rights to decision-making. Rungs (6) "partnership", (7) "delegated power" and (8) "citizen control" involve increasing negotiation and decision-making of participants with traditional power holders.

Agarwal (2001a:1624) has adapted Arnstein's ladder of participation in community forestry. She puts forth six levels of participation: nominal < passive < consultative < activity-specific < active < interactive. Each level is determined by the extent of people's activeness. She states that mere membership to a group without any involvement reflects "nominal participation". "Passive participation" refers to a situation where women attend meetings and merely listen to decisions alone, without actually voicing their concerns. "Consultative participation" seeks for women's opinions in specific matters without any guarantee of their inputs influencing final decisions. "Activity-specific participation" is where women are asked to (or volunteer to) undertake specific tasks. Further, her notion of "active participation" is that women express their opinions, whether solicited or not and take different initiatives. The highest level, "interactive participation" is when women have the ability to speak, influence and implement the decisions.

Although community forestry is said to be a participatory process, active participation of women is still lagging far behind expectations (Shrestha 2004). Empirical evidences suggest various factors that constrain women's participation in community forestry.

Some argue that the socio-cultural context of Nepalese society and local power structure are the major barriers hindering the participation of women (Agarwal 2001a; Lama and Buchy 2002; Gupte 2004; Agrawal and Gupta 2005). This socio-cultural context is influenced by factors such as caste, wealth, age, education as well as individual status in the society and in the household (NPC of Nepal and UNICEF 1996; Agarwal 2001b). Additionally, women's high workload (IFAD 1999), the inadequate timings of forest meetings (Lama and Buchy 2002), the resistance from village men on the basis of gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lama and Buchy 2002) are found to influence women's participation in community forestry.

Decision-making processes in CFUGs tends to be captured by wealthier and upper caste men (Tiwari 2002; Gauli and Rishi 2004; Maskey et al. 2006). Poor individuals participate in certain tasks (forest protection, participation in thinning, pruning) as opposed to rich individuals who participate in decision-making (Maskey et al. 2006: 270-272). Gauli and Rishi (2004) state that the level of participation in decision-making of lower castes and women was low compared to middle and upper castes and men. Lama and Buchy (2002) condemn the social and gender blindness of community forestry stating that it fails to account for and address the in-built shortcomings of participation where power and status quo determines participation to a large extent. They also note that the current focus of community forestry is on the biophysical dimension of natural resource management (e.g.: greenery, good harvesting stock of trees etc.) but little has been done to reduce the drudgeries of women. As such, women's interests and concerns in community forestry are not well addressed and very few decisions that directly benefit women are implemented.

The system of representation in CFUG and executive committees can also lead to differences in participation and decision-making (Agarwal 2000; Nightingale 2001; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009). Gautam (2004) puts forth that the number of women into leadership positions is increased through promotion of 'women only' CFUGs. However, out of some 14,380 forest user groups formed so far, only about 770 are 'women-only' groups (DoF 2007). Some authors also pointed out that women-only groups are few in number, small in area, and with forests of poor quality (Gentle 2003; Rai and Buchy 2004). Therefore, management of such CFUGs cannot be equated with women's improved decision-making.

Agarwal (2000:305) states that the virtual absence of women from the decision-making bodies can lead to significant gender inequalities in the distribution of costs and benefits, and a range of observed or potential inefficiencies in functioning of the overall system. Nightingale (2001) points out that women's representation in executive committees can bring forth women's decisions. She explains that women's representation can also increase women's value from mere labour contributors to decision makers arguing their own perceptions, which can be regarded as scaling up in the social hierarchy.

Women's opportunities to influence decision-making in executive committees rest not only on getting women into these committees. It also depends on how and whether the women in committees represent women's interests, whether they effectively raise their and other women's views and, when they do, if they are heard (Upadhyay 2005). Acharya (2006) suggests that by positioning women as authoritative decision-makers (e.g. by assigning them vocal positions such as President or Secretary) in 'mixed' executive committees of CFUGs, women can actually access and control the decisions and address their concerns. Acharya (2006) cites the example that when women made decisions, they allocated a significantly larger share of funds (as compared to men) for social and community development activities, which can contribute to addressing the issues of poverty and social equity in Nepal.

Other factors that can affect the participation of women are dominance of local elites (Nightingale 2001), systemic gender ignorance in forest policies and programmes (Agarwal 2001a:1623), exclusion of women during the initial stages of community forestry handover (Giri 2005b), an apparent lack of interest, lack of self-confidence and awareness (Nightingale 2001; Lama and Buchy 2002), inferiority, vulnerability and a lack of transparency (Lachapelle et al. 2004).

Generalized empowerment strategies and plans of action will prove to be meaningless, if marginalized and disadvantaged groups such as women remain isolated or ignored, particularly because mainstream development policies and programmes almost invariably fail to reach them. Given that a) community forests are an important resource for women for fulfilling the subsistence household requirements; b) that men and women differ in their needs, priorities of forest products, and c) men and women adopt different management perspectives to address their needs in community forest management; it is imperative to include women and encourage them to articulate their needs and priorities. Upadhyay (2005) emphasizes that excluding women in community forestry can result in negative consequences not only for gender equity and women's empowerment, but also for efficient functioning and long term sustainability of these initiatives. Integrating women's needs and priorities in community forestry is thus essential to promote sustainable conservation of community forestry (Agarwal 2000; Agarwal 2009).

2.3 Men's outmigration as a factor in women's participation in a CFUG

Women's involvement and active participation in decision-making is essential to ensure that women's needs, priorities and perspectives are incorporated in the management of the community forest. However, increasing women's involvement is influenced by the socio-cultural context of Nepalese societies. However, such socio-cultural contexts are not static but undergo continuous adaptations under different mediating factors. Given that men's outmigration can lead to social transformation in gender roles and behaviours, this thesis investigates the ways in which men's outmigration affects women's participation in community forest management. By building on gender and

feminist theories, as well as by discerning the relative role of structures and individual agency, the goal is to the better understand how women themselves perceive the effect of men's outmigration on their ability to take on a more active role in the CFUG.

3 Theoretical concepts related to women's participation in natural resource management

“Nothing natural about natural resource management.”
(Anna Tsing, 1999:9)

As Tsing puts forth in the above quote, natural resource management is all ‘made’, both regarding the epistemological understanding of power and knowledge (Mohanty 1991; Mohanty 1998; Gururani 2002a) and concerning the application of techno-scientific ideas (Ojha et al. 2009). Moreover, resource management occurs in a social context, where differences in culture, norms and power relations regulate the systemic functioning of natural resource management. As documented in previous sections, women's participation in the management of natural resources such as forest often involves complex and interrelated parameters. This complexity stresses the need of an embracing concept that allows a careful analysis of the extent of women's participation in forest management, while taking into account the power relations in a given social context.

In this perspective, general concepts of Feminism and of Gender are discussed as approaches for understanding the division, role, knowledge and influence of women and men in environmental decision-making. Particular focus is given to understand such differentiation from a power perspective in both macro (related to men's outmigration) and micro (household roles and relations) perspectives, and how, why and when, such power relations get affirmed, negotiated, or changed. To understand the power dynamics and their influence to social change, theories relating to agency and structure are used.

3.1 Feminist theories

Feminist theories denote a range of theories with the basic principles of “Feminism”, which asserts equal rights and demands legal protection for women. Feminist theory is manifested in various forms (e.g. Marxist feminism) and disciplines (history, environment etc.). Central to studying women's roles and relations with the natural environment, Ecofeminism emerged in the mid-1970s, and was the first attempt to theorize these interactions (Banerjee and Bell 2007). There themes are at its core: exploitation, domination and oppression (Sargission 2001). Ecofeminism has itself come a long way since its inception, and there is now vast diversity within the field. The diversity can be broadly categorized into three positions: (a) essentialist ecofeminism, (b) materialistic/post-structural feminism, and (c) colonial/third-world feminism.

Essentialist ecofeminism alludes to a conception that there is a natural or essential connection between women and nature that gives women an innate understanding of

nature (Chafetz 2006). It contends that women, by virtue of their biologically based differences, are superior in some areas, such as nature and environment. This superiority is termed as the “feminine principle” (Shiva 1988). Many other eco-feministic writers supported the assumption that women, due to their proximity to, and intuitive relationship with nature develop innate “women-nature connections” (Shantz 2002). This position also contends that women’s oppression and destruction of the environment are interconnected forms of domination (Rogers and Shutten 2004). Essentialist ecofeminism plays a major role in questioning canonical knowledge and standards through an utopian perspective (Sargission 2001). It has also documented women’s unexplored involvement, role and knowledge in environmental management. However, its essentialist epistemic privilege (women as ‘essential natural lovers’, women as ‘holding nature’s knowledge’ etc.) has been extensively critiqued (Agarwal 1992; Leach 1992; Burley 2001). These critiques almost uniformly argue that such privileges might represent the inequalities and domination (now by women of men) of the very traditions it romanticizes. Also, it tends to sideline questions of inequality and social organization of oppression (Chafetz 2006). Further, essentialist ecofeminism tends to use “women” as an undifferentiated category, assuming that all women have the same kind of sympathies and understandings of environmental change. This is considered by many as too idealistic, and has been criticized for not focusing on the actual conditions of women (Leach 1991; Agarwal 1992; Burley, 2001). This critique highlighted the need to study women’s relationship with the environment in particular social, historical, and material contexts.

In response to such a critique, material/post-structural feminism espouses that material and other structural conditions where people live, are complicit in producing particular kinds of environmental problems. These problems place additional responsibilities on women in charge of securing the subsistence needs of their families (Agarwal 1994). Agrawal (1992) pinpointed the importance of material practices (which also includes issues of caste, class, race and gender) in bringing women closer to nature. This close association gives women more understanding and knowledge. Taking a case study in India, she puts forth the idea, that since women are primarily responsible for cooking and thus for firewood collection, they have to spend time in forest. This obligation of practice has increased women’s knowledge of nature. Leach (1991:12) espoused that women’s relationship with their environment, just like that of men, is shaped by specific social and economic processes, and that their interests and opportunities change as an outcome of their relations with men and with each other (see also Burley 2001). Other factors such as caste (Gupte 2004), access to particular types of knowledge, spaces and resources (Rocheleau et al. 1996; Rocheleau and Edmunds 1997; Reed 2000; Freidberg 2001) can equally determine the relationship between women and the environment.

Despite the fact that essentialist ecofeminism and materialist/post-structural feminism are based on different assumptions, there is a common ground regarding women’s environmental knowledge. Both of these positions put forth the idea that women’s

knowledge is valid and important and that their participation in environmental decision-making needs to be safeguarded. This is particularly the case in developing countries, where women face continued domination and oppression by men.

Contrary to both essentialist ecofeminism and material/post-structural feminism, Colonial/Third-world feminism emphasizes the urgent need to decode the essentialism of both 'women' and 'culture'. Post-colonial/Third-world feminism (Mohanty 1991,1998; Gururani 2002b; Grewal 2001; Nesiah 2003; Pyle 2006) critiqued the implicit assumptions to see power in binary terms (Western versus Third-world). They pointed out the universal tendency (of colonialization) and of overgeneralization (of white concerns) implicit in the assumptions putting the 'western women' as the reference for modern (Mohanty 1991, 1998). Contrasted to the (white) western women, the third world' women were naturally portrayed as victimized, in the grip of their outdated cultures, and thus needed to be saved.

Post colonial feminism asserts that development is not necessarily linear, power structures are not static and relations are liable to change. Also, women in the Third-world are not always passive receptors, but can actively shape and negotiate their social world. This emphasis requires a close look on how such negotiations, as well as the associated resistance, are taking place at the given context. At this point, gender theories can provide a framework to understand processes of the (re)definition of men and women as categories, as well as the (re)organization of social relations, where power is both contested and reproduced.

3.2 Gender theories

While feminism rests on the notion of biological sex (of masculinities and femininities), gender theories imply the social and cultural construction of sex, which is investigated in strict opposition to any kind of naturalization. This indicates that categories of men and women are social constructions, which are formed out of norms, expectations, and laden common-sense of what it means to be a man or a woman in a particular space and time (Gildemeister 2004 in Flick et al. 2004). Thus, the social construction of gender is achieved by obvious and subtle (power) relations that assign females and males to social roles and social spheres where they learn being women and men respectively (Burely 2001:165). While the gender approach offers the possibility to analyse the social construction of sex and the resulting similarities and differences due to such socially constructed practices, its main strength is that it seeks to uncover the power differential between them and the inequalities that the system of gender generates. Gender studies do not necessarily claim for the equal weight of both sexes (as feminism does), but examine the unequal distribution of power.

Thus, gender theories focus on questions of organization and performance of social relationships. These are understood as a relation of power and thus as a process, not as a state. As Butler (1990 in Malson and Swann 2003) has argued, gender is

performed by subjects and it is only through this performance that gender takes on any meaning at all. Yet, these performances are imbued with power, which brings forth the differentiation among the performers. Butler's work has put forth the idea that gender is not static but rather is constantly (re)defined and contested through the contexts within which it is invoked.

Pratt and Hanson (1994 in Naples 2009) argue that place is one context within which gender is constructed. Such constructions are related with material and symbolic meaning of places that were significant in shaping women's employment and accessibility. Furthermore, the qualities seen as male or female in a specific society may be different, or vary in different social class or ethnic groups or even families. Culture plays an important role in the choice of life options, and integrates with economic explanation. Concepts such as "women's work" or "men's work" are powerful in making jobs seem "suitable" or "unsuitable" for females and males; and strongly contribute to the "sex-labelling" of any process or domain, e.g. occupation (Acker 1990). In this way, concepts act as symbolic boundaries. Further, structural boundaries reinforce conceptual boundaries such as rules prohibiting men and women from doing work deemed to be fit only for the other. (Epstein 2006 in Chafetz 2006:46).

However, the work of Butler, Pratt and Hanson fail to take note that the context/place is not a static background for social relations, but that is constituted by social relations that can change. As illustrated by Gururani (2002a,b) in a case study in the Himalayas, gender roles and social relations are in constant reconfiguration. She states that social relations constitute environments and are transformed through daily interactions of people, forest and work. These interactions provide an excellent foundation from which to examine the mutual constitution of social relations and environments. She asserts the idea that gender relations are shifting.

Likewise, Nightingale (2006) emphasizes gender as a continual process of producing as well as deconstructing social relations. Based on a case study of community forestry in Nepal, she argues that gender and other constructs, such as caste, are continually constituted and contested. She provides an explicit focus on how gender and environment are mutually constituted. She conceptualizes gender as a process in a context by which power relations are performed and resisted.

While gender theories highlight the importance of social (power) relations between men and women in everyday practices, they do not explain how human actions involve persisting (and changing) patterns of power relations. Theories relating agency and structure can help to better understand the nature and the use of power in society, and the ways in which different social groups attempt to negotiate and challenge prevailing power relations.

3.3 Theories relating agency and structure

There is a long-standing scientific debate regarding the relative importance of human agency and of social organization of 'structures' as causes of societal change. The concepts of agency and structure refer respectively to peoples' capacities to act within a social context, and the basic organizational features of particular societies. At stake is the question of whether human actions are primarily the product of individual volition or of structures that surround them.

Scholars working with the concept of structure put forth the idea that there are two foci of analysis: that individuals' attitudes and behaviours are shaped in varying ways and to varying extents by the position that person holds in a social structure, and that the properties and trajectories of social structures themselves need to be analyzed. They espouse the notion that structures act as factors of causality and can vary from social class, religion, gender, ethnicity, tacit norms and customs (Ojha et al. 2009). Human being's roles within this process are merely limited to act as 'bearers' of the structures. Thus, humans do not make actions themselves, but under circumstances directly encountered, given or transmitted by, or within specific structures indicating that structures determine human actions (Meyer and Jepperson 2000; Fuchs 2001; Lopez and Scott 2002).

Scholars working with the concept of agency, on the other hand, focus on the capacity of individual humans to act and make their own choices (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Roy Chowdhury and Turner 2006; Banjade et al. 2006; Fudge 2009). The concept of agency conveys volitional, purposive and intentional aspects of human activity; that generate power. Thus, an agency perspective provides a more optimistic outlook on the humans' ability to bring about social change (Elsop et al. 2006:236).

Over the years, this abstract polarity between agency and structure was critiqued resulting into an increased understanding that both agency and structure cannot be understood in isolation from each other. Giddens's theory of 'structuration' posits that it avoids structural determinism through constant emphasis on the interplay of structure and agency (Giddens 1984 in Chouinard 1997). It offers a broader conception of social power as the outcome of struggle over allocative and authoritative resources (i.e., material wealth and decision-making power) and recognizes the significance of spatial organization in the structuration of social relations. Despite its loopholes (see Gregson 1986), structuration theory has pointed out the need to take a co-deterministic approach and understand the roles of structure and agency as complementary in mediating social actions (Dalton 2004; Gustafsson-Larsson et al. 2007; Hitlin and Elder 2007; Hitlin and Long 2009).

Women's participation in natural resource management, and forestry in particular is dominated by empirical studies focusing on the role of structures on limiting women's participation (Lama and Buchy 2002; Agarwal 2001a; Gupte 2004). Additionally, these

studies take an institutional perspective and limit the exploration of women's participation in formalized structures such as the executive committee and the general assembly (Rai and Buchy 2004; Acharya 2006). Such structure-laden perspectives, while helping to identify the factors that constrain women's participation, tend to fall into the trap of understanding structure as an immutable and static context. As such, the everyday gender and power relations and informal ways in which the resource actually is used and managed are neglected and remain invisible. Moreover, while structural resources are often critical, they are not always sufficient to lead to change (Kabeer 2001; Arora-Jonsson 2008b). This requires a closer investigation of agency in understanding community forestry as well as of exploring women's participation.

3.4 Women's participation as a gendered process with interplay of agency and structure

This thesis uses a mix of theoretical approaches such as post-colonial feminism, gender and structuration to analyze women's participation. This mix of theoretical concepts conceives women's participation as a gendered process that involves an on-going interplay of agency and structure. While both post-colonial feminism and gender theories stipulate the need of understanding the social context to analyze power relations, this thesis adopts gender theories for its emphasis on unequal social processes, but not only on women per se. Indeed, this thesis neither sees men and women as two opposite monolithic blocs, nor does it consider that active women's participation is possible only after the retreat of men. Rather, this thesis attempts to elucidate the processes through which different actors like women (and also men) effect social change and shape the means to participate in community forest management.

Thus, this thesis investigates women's participation as a gendered process that involves a continuous interplay of agency and structure. Using this theoretical lens, the aim is to signal that the interplay of power structures are not static at a given context, that relationships are being forged and changed in an on-going and open process, all and that new windows of opportunities can open at any time. Understanding women's modes of asserting their rights, their resistance as well as their reproduction of structures requires a nuanced approach. This will allow a better understanding about how women play out their concerns, in institutional structures and in informal settings. Thus, the use of structuration theory within a gendered process will provide a closer look at the micro-social processes taking place within and outside the executive committee or the general assembly. It will help in understanding how women confronted challenges, reproduced orders, and contributed to the practice and discourse of participation in resource management. This will illustrate different dimensions of agency as well as structures that can account for variability and change in women's capacities for critical interventions in participation, taking into account the diverse contexts within which women act, as well as the constraints that they continually face. Ultimately this type of theoretical perspective suggests how diverse social practices with different

logics may be at play, producing largely invisible tensions that can have significant impacts on women's participation..

4 Methods

This chapter first explains the research strategy of the dissertation. Then it elaborates the research methods to collect and analyze data.

4.1 Research strategy: a multiple case study

Case study research (Yin 2003) was selected as a research strategy because it allows systematic investigation while maintaining a contextually rich understanding of a phenomenon (Yin 2003; Flyvbjerg 2006; Baxter and Jack 2008). This is the most suitable strategy for this study because the issue was 'women's participation in forest management' but this issue could not be adequately understood outside the context-effects of men's outmigration in specific CFUG. Case study approach, which has been widely used in exploring forest management, has demonstrated its ability to capture the complexities involved (Banjade and Ojha 2005; Muhammad et al. 2009).

Given the limited empirical research that addresses the effects of men's outmigration on women's participation in forest management, part of this study is exploratory. The aim was to identify the key effects of men's outmigration on women's participation. The other part employs explanatory approaches to systematically explain the social mechanisms that can affect women's participation in community forest management, with an explicit focus on men's outmigration, but not limited to it. To ensure a minimum diversity in the empirical material, and to allow for cross-case comparisons, this study used a multiple case study approach (Baxter and Jack 2008).

Local social norms and ethical concerns were taken into consideration (Scrimshaw 1990) and empirical data were collected in the field, using a mixture of qualitative and quantitative methods. A qualitative approach emphasizes 'lived experiences', locates the meanings, perception and assumptions of people, and connects these to the social world around them (Miles and Huberman 1994:10). A quantitative approach emphasizes measuring variables and testing hypotheses that are linked to general causal explanation (Neuman 2006:151). The mix of qualitative and quantitative approach is designed to identify as much of the full spectrum of complexity associated with women's participation in forest management, as possible (Chaseling 2000; Baxter and Jack 2008).

The analysis builds on compounding the insights and interpretations obtained from in-depth interviews, focus group discussions, participant observations and a quantitative survey. This mix of methods also allows enhancing the validity and reliability of results (Patton 1990; Yin 2003; Flyvbjerg 2006). Since the research was conducted after building a good rapport at research sites, the data was further validated through inputs from key experts of different organizations. Further, the interviews and focus group discussions were not only used for data collection, but also for joint analysis and validation of previous results.

The case presented in this thesis can not be generalized to a population without considering the similarities of context, but may be used to guide research to increase understanding of the associated complexity of women's participation in natural resource management.

4.2 Research design: an iterative process

The process of collecting and analyzing data was kept reflexive and iterative. The data collected at one step were analyzed, allowing the researcher to fine-tune the next data collection step (see Table 1). As a first step, the existing literature on participatory forest management was analyzed with an explicit focus on women's participation. This helped obtaining an enhanced understanding of the current status of community forest management and associated governance challenges (Paper I). While women's participation emerged as a challenge, the lack of previous studies investigating the impacts of men's outmigration on women's participation in forest management also became evident. This necessitated conducting an exploratory study to assess the effects of men's outmigration on women's participation.

As a second step, the exploratory study was conducted in two CFUGs in Kavre district: "Chande Majuwa" and "Katunje Pakha". This study confirmed the role of men's outmigration in women's participation and allowed to identify a number of areas that are strongly affected when a husband outmigrates (Paper II). This study also helped to extend the set of questions used in a third step, where the effect of men's outmigration on women's participation in community forest management was assessed using a survey. This survey was conducted in two CFUGs in Ramechhap district: "Majuwa Bhumithan" and "Dugursing Hup" (Paper III). Undertaking the survey in Ramechhap ensured an adequate sample size and some variation in the practices that women adopt for participating in community forest management.

While both the exploratory study and the survey indicated an association between men's outmigration and women's increased participation in community forest management, the lack of qualitative information allowing to understand the social processes and mechanisms through which women's participate in community forest management, within the dynamic social context (as men's outmigration) became evident. To collect information on this, informal discussions were held with women and men both, as well as focus group discussions with women. This allowed to better capture the women's perspective on their involvement in community forestry, the associated challenges the women face and the strategies they use to tackle such challenges (Paper IV).

Table 1: Overview of the steps in data collection and analysis

Steps in the process	Details of collected data	Details of methods used for collecting data	Where	When	By whom
Literature review	Review of global changes in participatory policies and its effects on forest management in Nepal. Review of community forestry from sustainable livelihoods and governance framework. Review of existing challenges, with an explicit focus on women's participation in community forest management. Review of effects of men's outmigration on women's role and position in diverse settings and programmes across the globe.	Review and analysis of existing theoretical, methodological and policy related documents, journals, policy briefs etc. on women, natural resource management, community forestry, governance, migration etc	Austria and Nepal	October 2006 - September 2007	Researcher
Exploratory survey	Effect of men's outmigration on women's participation in community forest management. Factors that can mediate the effects of men's outmigration on women's participation	Three focus group discussion with 30 women. Informal discussion with men 5 key informant interview Review of the operational plan, constitution and minutes executive committee meetings of each CFUG.	"Chande Majuwa" and "Katunje Pakha" CFUGs in Kavre district	November 2007 – January 2008	Researcher, 2 research assistant, and 4 local facilitators
Questionnaire Survey	Women's attendance at General Assembly Women's influence in forest decisions Women's representation in executive committee Women's information and social networks Mediating factors for women's participation during men's outmigration	Personal interviews with 186 women using a questionnaire Review of the operational plan, constitution and minutes of executive committee meetings in each CFUG	"Majuwa Bhumithan" and "Dugursing Hup" CFUGs in Ramechhap district	February 2008 to April 2008	
In-depth interviews	Adaptation mechanisms of left-behind women due to men's outmigration Women's individual perception about their participation in community forest management.	Individual interviews with 30 women 10 key informant interviews Informal discussions with men		December 2008	Researcher and 1 research assistant
Focus group discussions	Women's collective achievements and challenges in community forest management Sharing validation of results obtained from questionnaire survey and in-depth interviews.	Five focus groups with 40 women		January 2009	Researcher, 1 research assistant, and 2 local facilitators

4.3 Start of fieldwork

4.3.1 Site selection

The process to select the research sites was cumbersome and time-consuming. Given the inadequate and scanty data on migration in Nepal, it was difficult to reliably identify districts with a high share of men who outmigrate. The Central Bureau of Statistics and NLSS have published data on international outmigrants and inmigrants at district level (CBS 2001; NLSS 2004). However, this data does not include seasonal or periodic outmigrants from a district. Birth registration is not yet comprehensively applied in Nepal, adding to the uncertainty attached to official statistical data.

Thus, a judgment-based protocol was developed to select suitable research sites. The criteria employed in the initial selection process focused primarily on those districts with a high rate of outmigrating men and with widespread community forest management. An initial interaction with key personnel from different organizations working in forest and migration issues in Kathmandu indicated potential research districts. Practical considerations, such as existing contacts, the willingness of stakeholders to participate, accessibility, and personal safety (given the Maoist insurgency) were also included in the protocol. The protocol allowed to identify two suitable districts: Kavre and Ramechhap.

In both districts, interviews with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level), and national as well as international non-government organizations allowed to short-list six CFUGs. All these six CFUG had a high rate of men outmigrating, a high level of women's participation, good access to markets, good forest condition and similar ethnic-composition. These CFUGs were then visited to verify the information. From the resulting list, two CFUGs were randomly selected from each district: "Chande Majuwa" and "Katunje Pakha" in Kavre district, and "Majuwa Bhumithan" (Majuwa) and "Dugursingh Hup" (Dugur) in Ramechhap district.

4.3.2 Selection and orientation of research assistants

The research assistants and local facilitators were recruited differently. Two research assistants, one woman with a degree in forestry, and one man with a degree in social science were recruited. Training them took four days and allowed to convey the research objectives, and explain the methods to collect data. Four local facilitators (1 man and 3 women) were recruited in each CFUG. Having women on the team allowed to build a friendly relationship and earn trust with the interviewed women. Having men on the team also helped in liaising with village men and gaining their support for the study.

4.3.3 Pre-testing the questionnaire

The questionnaire was designed in English and translated into Nepali, which is the most commonly used language in Nepal. The questionnaire was pre-tested with 20 interviewees in Katunje CFUG by both the researcher and the research assistants. The pre-test allowed to know the time it took to fill out the questionnaires, to check the flow and sequencing of questions. Notes were taken where the respondents found the questions obscure, repetitive or irritating. The questionnaire was then revised accordingly.

4.4 Data collection

Data were collected using both qualitative and quantitative methods in different phases between November 2007 and January 2009 (see Table 1). Face-to-face questionnaire survey, in-depth interviews and focus group discussions were used as the main methods to collect data. Additionally, interviews with key informants, informal discussions and participant observations were also conducted. Sampling at all levels of this study can be described as purposive (Neuman 2006). Interviewees are sampled with snowball sampling method (Neuman 2006).

The face-to-face questionnaire survey was administered to grasp factors that influence women's participation in forest management. Respondent's responses were solicited through multiple choice, numeric open-end and text open-end questions. The survey was used to test the knowledge derived from the literature review in a rigorous manner, and to assess causal relationships (Neuman 2006). While questionnaire surveys tend to be strong on reliability, the artificiality of the format puts a strain on validity (Dudley 2005).

In-depth interviews allowed a fuller understanding of the interviewee's perspective on the investigated topic with an opportunity to probe or ask follow-up questions (Kvale 1996; Berg 2009). The interview approach was personal and mostly conducted in interviewee's home.

While getting an idea of individual women's reality was possible using in-depth interviews, a collective understanding of challenges and achievements that these women faced in community forest management was also essential. Focus group discussions (Berg 2009:108) were conducted to obtain conscious, semiconscious, and unconscious perceptions and socio-cultural characteristics and processes among women. Thus, they elucidated both similarities and differences women have as a group.

Additionally, interviews with key informants such as the school teacher, forest rangers, local tea-shop owners, men and women executive committees were conducted. Informal discussions and participant observations in local settings also added to the validity of collected data.

Personal consent was obtained from each interviewee prior to their participation in survey, interviews and focus group discussions. Interviews and survey mostly took place in interviewee's homes, whereas focus group discussions were held at a convenient public place, which was suggested by the participants. All communication took place in Nepali language.

Data obtained from qualitative and quantitative methods were triangulated to counteract threats to validity (Kelle and Erzberger 2004; Berg 2009). These threats were identified each using several methods (see Fig. 2). Each interview was conducted by two research assistants so that they could compare notes and discuss their impressions afterwards. Each interview was also tape recorded. The results of the survey and interviews were then related to each other and further, cross-checked, if possible, with secondary information obtained from the minutes of executive committee meetings, constitutions and operational plans of the CFUG. Finally, the results were shared during focus group discussions to clarify the interpretation, and seek new or additional perspectives on an issue.

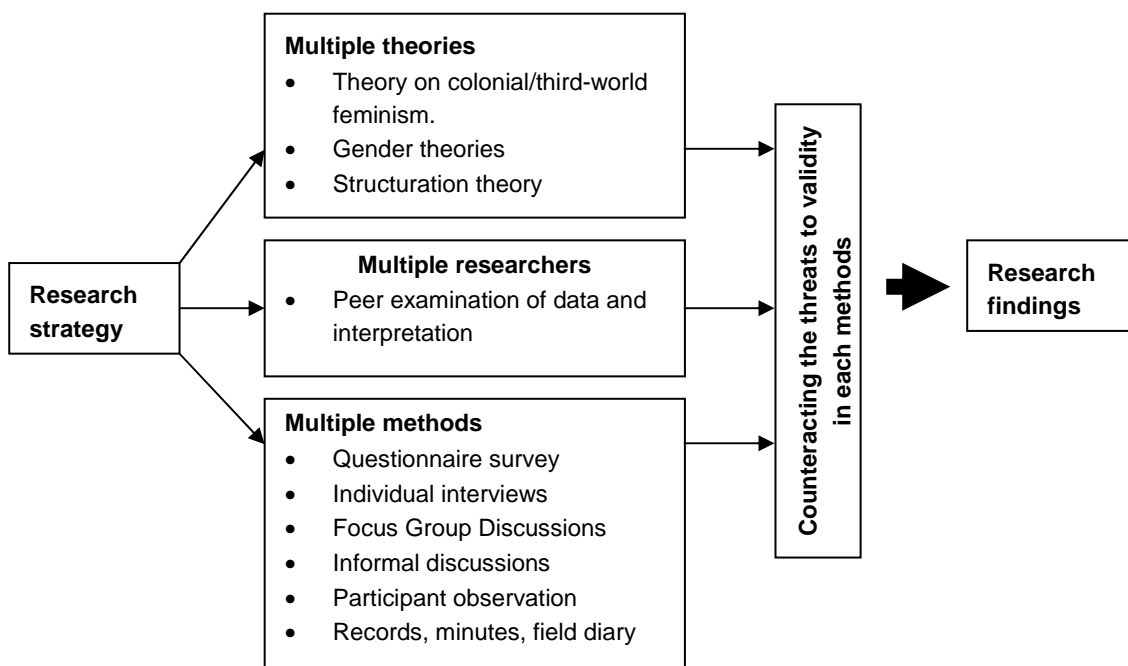


Figure 2: Data collection and triangulation techniques (Adapted from Berg 2009)

4.5 Data analysis

Quantitative data from survey was analyzed using statistical package SPSS 16.0 (Norušis 2008). Descriptive statistics such as percentage, mean, standard deviations, etc. were calculated to characterise the surveyed population. Chi-square and ordered logit regression were used to test the causal relationships between men's outmigration and women's participation in community forest management.

Qualitative data from in-depth interviews, focus group discussions, key informants, informal discussion, participant observation and field notes were transcribed, translated into English and analyzed using a content analysis approach (Berg 2009). Content analysis involves developing ideas about the information found in various categories; seeking emerging patterns based on the meanings that seem to be conveyed. The data was analysed to understand the women's view of their social world and the differences between the women's views. Generic labels or pseudonyms were used to identify communities and individuals, wherever required. Literature from similar studies was consulted to assess the reliability of results.

5 Results: Summary of the papers

This chapter is a summary of the four papers compiled in Part B of this dissertation. A brief description of each paper's purpose, main findings and implications allow an overview of the results based on the empirical material.

5.1 Paper I - Development and status of community forestry governance in Nepal

This paper has been published in proceeding of the conference: National Convention of Foresters: 'Forestry in a Climate of Change', held on November 5-9, 2008 in Reno-Tahoe, Nevada, USA.

This paper investigates the trajectory of community forestry programme and provides an analysis of its achievements and pitfalls. Community forestry programme is widely reckoned as a successful forest programme, having improved the forests' condition and user's livelihood (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Yet, challenges of empowering of women and disadvantaged groups remain, and successes are not uniform throughout the country (Agarwal 2001b). Both the challenges and achievements are part of a process, constantly influenced and mediated through both external (such as market, policy etc.) and internal (such as differential powers within a community) institutions. An understanding of these processes is essential to understand the complexity associated with managing community forests. Contributing to this understanding, this paper addressed the research question: what is the current status of community forest governance in Nepal?

Data were gathered from research articles, grey literature, and policy reports on participatory policies with an explicit focus on community forestry in Nepal. Based on a review of literature, this paper analyzes how external and internal institutions associated with community forest management have led to an adaptive process.

The findings show the interplay of global policies and markets with national policies on forest management in Nepal. National and international pressures were instrumental in shaping the forest management paradigm in Nepal. The early mode of tenured privatization saw a high degree of indigenous forest management with well-balanced goals of fulfilling the need for forest products and conserving forests. However, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people, transforming forests into an open-access common resource. As with Hardin's Tragedy of Commons (Hardin 1968), the deforestation and degradation of Nepalese forests led to regional flood disasters in the lower plains, giving rise to the Theory of Himalayan Environmental Degradation/Doom (Eckolm 1975). This occurred at a time when the international policy dialogue took a swing towards implementing participatory programmes for forest conservation (FAO 1978). As a result of the international donor

agencies' alarmist view, the Nepal government was accommodative to accept that without the users' participation, the government agencies were not able to sustainably manage the forest resources. Slowly policies became more favourable to community participation, and community forestry got momentum. Within two decades of predicted ecological doom, Nepal has established itself as a global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001).

The analysis indicates the ongoing process underlying the community forestry programme and highlights major setbacks, related to issues such as gender, caste and class. In particular, it draws its experience from the Nepal Swiss Community Forestry Project (NSCFP). The community forestry programme shows that Nepal has excellent evidence indicating a dramatic change in the status of forests: from severe deforestation to extensive regeneration within two decades. Still, the challenges are unfolding in nature. Moreover, challenges are at play all the times. The first generational challenge in community forestry was to convince and involve local people in community forest management, to gain their trust (Shrestha and Britt, 1998). While this has been fairly well accomplished, a set of other issues such as class, caste and gender discrimination within collective action became more apparent. These challenges have been met with success at some places, while at other places they remain grave. Learning from these encounters continues to enrich the policies and practice, through adapting existing legislation and developing novel rules and regulations.

Taking the standpoint of systemic learning and adaptive governance, this paper identifies the potential of community forestry to achieve collective change and sustainable forest management. Achievements till date have reflected the great potential of community forestry in achieving good forest governance, sustainable forest management and livelihood for the forest dependant communities of Nepal. Some of the crucial factors for the success of community forestry are the dynamic and adaptive nature of the programme, allowing a restructuring and reformulation of policies, and the devolution of authority to local communities. This mix of factors motivated local communities to participate in a transformed scenario and realise its potential benefits. Building on adaptive learning and transformative governance, community forestry reaffirms the fact that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

5.2 Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal

This paper has been published in: K. Aravossis, C.A. Brebbia, N. Gomez 2008 (eds.). *Environmental Economics and Investment Assessment II*. Southampton, WIT Press, pp. 295-304.

While the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women's participation and decision-making into such "participatory" processes has remained mostly rhetoric (Agarwal 2001; Buchy and Subba 2003). Indeed, evidence suggests that women's involvement in community forestry has mostly been "passive": women's household entitlement to membership in community forest user groups (Lachapelle et al. 2004; Upadhyay 2005). As such, women are often reported as simply position holders, without the possibility to influence decision-making (Lama and Buchy 2002).

Concomitantly, an increasing trend of men's outmigration is widely observed in the rural communities in Mid-hills of Nepal (CBS 2001; KC 2004). Existing studies indicate that men's outmigration can lead to changes in social relations, affecting women (Hadi 1999; Hadi 2001; Kaspar 2006). Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper presents an exploratory research that analyzes the effect of changing modes of women's participation. Specifically, this paper explores the research question: In what ways does men's outmigration affect women's participation in the management of the community forest?

Data were collected using focus group discussions, individual interviews and participant observation from two community forest user groups in Kavre district. The main issues discussed were the factors that allowed or prevented women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in community forest management. Furthermore, informal discussions with men were conducted to assess their perception of women's involvement in community forest management. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the community forest user groups.

The findings point out that women's active participation in community forestry are brought forth by a variety of factors, including men's outmigration. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. through being involved in a savings group – or participation in a women's rights programme, increases the women's confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men's support, women are willing to take on new challenges and seize the opportunities that can arise from men's outmigration. The extent to which left-behind women become actively engaged in community forest management seems to depend to a large part on whether they are in a nuclear family and whether they are unsatisfied with the information about

the community forest they get from their social networks. Moreover, women's active participation in community forest management led to increased forest protection, improved forest regeneration and well-regulated supply of forest products.

This paper adds to the current literature of participation by explaining how different factors can affect women's increasing participation in community forest management. While these findings are consistent with the earlier studies (Kabeer 2001; Agarwal 2001a,b; Buchy and Subba 2003; Agarwal 2009), one of the important contributions of this paper is to point out that socio-cultural contexts are not static. Rather they undergo continuous negotiations and adaptations under different influences. Men's outmigration is one of the factors potentially affecting women's participation in the public sphere of community forest management. This paper proposes the need of further research to identify the different circumstances that can arise due to men's outmigration in a social setting, and the resulting impact in women's participation in community forest management.

5.3 Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?

The paper has been submitted to the *Scandinavian Journal of Forest Research*.

The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (CBS 2001; NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies like Nepal where men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. Empirical evidence also suggests that the wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions (Giri et al. 2008). This paper thus addresses the following question: What factors affect the extent to which women participate in the management of the community forest during men's outmigration?

Data were collected using a questionnaire survey, in-depth interviews and focus group discussions with women from two CFUGs in Ramechhap district. The questionnaire survey was conducted with women and included questions on women's participation in silvicultural activities, attendance at assemblies, whether the women voiced their views

at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. At a later stage of data collection, to better understand how husband's outmigration affected their wives, in-depth interviews with left-behind women were conducted to elicit the personal experiences in coping with their husband's outmigration.

This paper statistically tests whether men's outmigration provides a 'window of opportunity' to increase women's participation in community forest management. The significance of different factors on women's participation during men's outmigration was tested using Chi-square tests as well as an ordered logit regression. Additional insights were derived from interviews and group discussions.

The findings indicate that men's outmigration can open a 'window of opportunity' for women to actively participate in community forest management. Left-behind women were significantly more likely to attend general assemblies and voice their opinions during the assemblies, compared to women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring of social roles and responsibilities both within households and within community institutions (Zacharia and Ranjan 2001; Karki and Bhattarai 2004). However, the extent to which outmigration represents an opportunity depends on family type (extended or nuclear) and composition (presence of adult men or older women).

Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions. These findings are consistent with the earlier studies (Hadi 2001; Kaspar 2006). Moreover, this study extends the previous research on migration for its investigation on women's changed roles in public sphere of community forestry.

The other contribution of this paper is its illustration of the interplay of changing social context (men's outmigration) with the internal and external institutions, and its impact on women's participation in community forest management. Due to the widespread outmigration of men, the internal institutions (such as men members of executive committee) can display a higher level of understanding that adjustments need to be made and thus, may be more willing to accept untraditional behaviour by left-behind women. This acceptance can be reinforced by the constant pressure provided by external institutions (such as Department of Forest, I/NGOs) to include women in community forest management. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling women to engage in the public sphere of community forest management. Also,

this paper confirms to the need of supportive policy measures to sustain the positive change with progressive redefinition of social structures and norms.

5.4 Paper IV - Nepali women using community forestry as a platform for social change

The paper has been submitted to the journal *Society & Natural Resources*.

The paper has been through the first review and the editor has indicated that it would be accepted for publication after revision. A revised version has been resubmitted.

Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups. These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active participation in the decision-making mechanisms within the community forest user group (Agarwal 2001a,b; Lama and Buchy 2002). While these studies focus on exclusionary structures to explain how and why women are marginalized in community forest management, this paper focus on social change processes, i.e. whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. This paper focuses on addressing following research question: How do women shape their social role in the public sphere so as to increase their participation in community forest management?

This paper draws on data gathered from two community forest user groups in Ramechhap district, using a mix of quantitative and qualitative methods. Face-to-face questionnaire survey was conducted to assess women's understanding of the operational plan or the roles and responsibilities of the users as well as to analyze the extent to which women were consulted and whether women attend meetings and speak up their concerns. The survey included a range of questions regarding the respondent's. Later, in-depth interviews were solicited to obtain the subjective views of the respondent's experiences, attitudes, achievements and challenges regarding her participation in community forestry. Furthermore, focus group discussions were held to elicit women's collective perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and the strategies women use to tackle these challenges. Data were analyzed using a content analysis approach (Berg 2009) within the theoretical construct of gender as a process (Nightingale 2006).

The findings indicate that women held spurious perceptions about the organization of community forestry and they were not fully aware of their rights in decision-making processes. They also perceived themselves unqualified to become the members of

executive committee. These findings are consistent with the previous studies (Agarwal 2001a,b; Lama and Buchy 2002).

However, this study departs from the previous studies in approaching women as agents of change instead of passive recipients of discriminating structures. It suggests different ways through which women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. Evidence of the processes of change can be found in incidents that might seem minor, but through the subtle microsocial acts, women contest the dominant social norms, experiment with alternative behaviours and increasingly assert their rights. Thus, this paper provides an enhanced understanding of women's agency, elucidated the social dynamics behind the formalities, and of the role of gender in community participation.

This paper also proposes that to gain such an understanding, there is a need to understand participation as a process related outcome and not a outcome-orientated initiative that can be captured in a snap-shot approach. Women's participation in public settings offered by community forest management is a new situation, where both men and women are unsure what to make of this new situation, what meaning it has and how it will be used by various parties. The situation is thus contested, being seen by some as an opportunity to experiment with a new situation while it is opposed by others. This ambivalence will involve a process of trial and error, of success and setbacks. Therefore, a nuanced approach to data allows to spot both the achievements and challenges for women's participation. This is crucial to capture the experimentation process, by identifying, supporting and/or rectifying approaches that could lead to transformative participation and equity in decision-making.

Additionally, this paper suggests the need of employing a careful mix of research methods to capture the complex dynamics of women's participation in community forestry. Whilst the results from the survey signalled to women's exclusion in community forestry, women's perceptions as voiced in the interviews and group discussions modify this interpretation towards women as agents of change. Likewise, this paper contributes to identifying and suggesting qualitative indicators (such as change in perceptions, changes in acceptance level by community etc.) to assess change in women's participation in community forest management, along with more-commonly used quantitative indicators.

6 Discussion and perspectives

6.1 Summary of the present dissertation

Women's inclusion and influence in participatory programmes like community forestry is considered indispensable to enhance both ecological and social sustainability in Nepal. Previous studies have identified a range of formal structures and processes that exclude women's participation (Agarwal 2001a; Buchy and Subba 2003). However, these studies do not provide a complete picture of the situation for two reasons.

Firstly, the social contexts where rural communities live tend to be portrayed as static in previous studies (Mohanty 1998; Gururani 2002b). However, rural communities particularly in Nepal, live in a state of flux, often characterized by unruly markets (Sugden 2009), instable politics (Taras 2006) and changing demography (CBS 2001; NIDS 2007). Previous studies have not been sufficiently attentive to the changing social context of rural communities and its associated impact on their participation in community forest management. In exploring the changing social context of rural communities in Nepal, the present dissertation focused on the effects of men's outmigration on women's participation in community forest management.

Secondly, when examining the structures/processes that affect women's participation in community forest management, previous research has particularly focused on women's position and roles within formal institutions. Thus, any dynamics of negotiation, contestation, and resistance beyond the formalized settings have been ignored. Using gender as a process (Nightingale 2006) involving reiterative interactions between agency and structure, this thesis investigated how women during men's outmigration can exercise their influences in community forest management, while being conditioned by structures. Thus, this thesis provides valuable insights on the conditions/processes that can lead to increasing women's participation in community forest.

Both exploratory and explanatory approach was used to understand the dynamics of men's outmigration on women's participation in community forest management. Data were collected and analyzed using different qualitative and quantitative methods. This mix of approaches and methods ensured obtaining valid and reliable results.

Based on the results from paper I-IV, the following conclusions are drawn:

- Men's outmigration can provide opportunities for women's participation in community forest management. However, the extent to which women take such opportunity is mediated by various factors.
- Women can exercise agency despite structures limiting their participation in community forest management.
- Participation is to be understood as an adaptive process of governance and learning, and not a hurried outcome limited to easily-measured outcomes.

These conclusions are used to broaden the discussion of women's participation in community forest management through potential implications. By emphasizing the multidimensionality of women's participation, this dissertation advocates the importance of applying various approaches and tools to conceptualizing and measuring participation. It also emphasizes the crucial role that formal and informal institutions play in women's participation and sketch out theoretical nuances and methods of examining such institutions.

6.2 Theoretical implications

The findings of this study provide a robust case indicating that a range of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. Combining different theories is important because many of the observed outcomes in this thesis could be un- or undervalued or stereotyped, if were analyzed from a single theory.

Feminist/eco-feminist theories argue for positioning and strengthening of 'women-agenda' into development programmes given to the richness of women's knowledge and close association to nature (Shiva 1989; Sargission 2001; Shantz 2002; Rogers and Shutten 2004). They thus often argue to incorporate women-agenda by proposing some change in structural measures such as representational quota etc. As the paper I states, the community forestry policies in Nepal have been continually adapted, if investigated in this direction. Women's knowledge and role in forest management have been well-identified by labelling women as the "primary users of forest". Furthermore the expected share of women in decision-making bodies has been raised. Other measures such as including both male and female's name as the representative head of households in the forest constitution have also been implemented.

Such representational measures can be thought as a starting point to address the persisting disproportionate representation and structural inequalities between men and women in community forestry institutions. Indeed, as the Feminist theories propound, this need of incorporating women's issues can provide an entry point to recognize and secure women's right to spaces of decision-making in community forest management. This push from feminist standpoint is important particularly for the present context of rural Nepal, where structural spaces between men and women are perceived to be different and are often imbued with "common-sense" power relations (paper IV). Indeed, such common-sense is taken for granted and thus the fundamental premises or ideology on which these seemingly common power relations are based are rarely questioned (Arora-Jonsson 2008b).

To provide a sense of alternatives, it is necessary to have spaces that give the possibility to view the relations in a different setting. Particularly in the case of forest management where forest decisions directly affect women (Tinker 1994; Agarwal 2009), providing women's entry into decision-making forums, can surely indicate an alternative

sphere that gives possibility to address their concerns and influence decision-making. Paper II documents that the effective forest management under women's leadership earned them respect and a sense of their own capability, which they lacked before. Paper IV also confirms that women, while experimenting with the alternative sphere of decision-making (provided by community forestry) can add to new knowledge and learning process that can also break the commonly assumed behaviours and mould new expectations. In a series of such subtle changes, women might then be able to increase their influence in the decisions governing the management of the community forest. Empirical studies at other parts of globe have also identified the effectiveness of such measures to build up a critical mass of women (Tinker 2004; Stockemer 2007; Kudva and Mishra 2008; Jones 2009).

Thus, before adopting a theoretical stance of feminist/eco-feminist theories, a cautious check about its assumptions and whether those assumptions fit to the research context is required. Despite women being the agenda of most (eco)-feminist studies, the very rationale that feminism started to counteract the dominant and discriminating ("androcentric") viewpoints should not be forgotten. Thus, the underlying principle of feminism is not men against women, but the differential power relations between men and women that led to discriminatory outcomes (Chafetz, 2006). In the pursuit of working against women's discrimination by men, feminist theories need to decode the social system, unravel the common-sense and analyze the power relations that lead to discrimination (Mohanty 1998; Gururani 2002b; Arora-Jonsson 2008b). Thus, it might be too simplistic and fallible to assume that all women are similar and that they are always discriminated to men without a proper analysis of the social context where discrimination takes place. Also, the extent to which a token of women representatives are expected to unanimously bring in all woman diversities, always work for the benefit of other women and never discriminate against women is questionable.

The findings of paper II, III and IV illustrate this complexity where women as a unified category face similar challenges in forest management and yet, the extent of challenges within women can vary due to several factors. In particular, paper III identifies household type, presence of in-laws as the major factors that can vary the extent of left-behind women's participation in community forest management. Previous studies have also indicated that women's knowledge and participation in forest management is contingent on different factors, such as class, caste, position in a family (Agrawal 1994; Jeffery et al. 1998; Shrestha 1999; Chhetri 2001; Gupte 2004).

There is thus a need to unravel the differential power relations that discriminate between men and women and within women, while they participate in community forest management. Gender theories can illustrate this phenomenon by analyzing the social (power) practices that turns male into men and female into women and discriminates between them (Burely, 2001). Indeed, it is important to decode both, the power performances (Butler 1990; Epstein 2006; Naples 2009) and the social context (Mohanty 1998; Gururani 2002) to better grasp the power relations between men and

women. Once gender is reconceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. In particular, paper III illustrates the changing social context due to a large share of men outmigrating and the resulting effect on women's participation in community forest management.

While gender theories highlight the importance of power relations between men and women in everyday practices, these do not fully embrace how human actions involve persisting (and changing) patterns of power relations. Thus, the theories relating agency and structure (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Callinicos 2004) were combined with gender theories to better understand the nature and use of power by women in community forest management.

Using an agency perspective alone may hinder the discrimination that women can face in community forest management. Likewise, relying on a structural perspective alone may mask the potential that women can exercise in influencing community forest decisions. The dual interaction between agency and structure helped to capture the complete dynamics associated with women's participation in community forest management. On one hand, paper II and III support the interplay of structures in regulating agency. Paper IV, on the other hand, confirms the multifaceted relationships through which women exercise their agency and modulate structures.

In short, to address women's participation in community forest management, this thesis points the need to understand and decode the underlying assumptions of each theory. A combination of theories used in this thesis illustrated the inter-linkages that were observed to exist between agency and structure, but only when gender is conceptualized as dynamic and not static. Thus, a logical suggestion is that analyzing women's participation in natural resource management could be enhanced if theory incorporated (and also valued) the full breadth and depth of mechanisms and processes associated with women's participation.

6.3 Methodological implications

There exists a widespread dichotomy between quantitative and qualitative methods in social research. This dichotomy is often reflected in terms of oppositions such as "quantity versus quality", "objective versus subjective", "hard versus soft science", "products versus process" (Brecher 1999; Neuman 2006; Berg 2009). However, there is a growing recognition that such sharp dichotomies between qualitative and quantitative methods is fuzzy (Ravallion 2005) and that research studies benefit from a judicious mix of both methods (Kanbur 2003; Kelle and Erzberger 2004).

Previous studies investigating women's participation in natural resource management are either qualitative (Agarwal 1992; Lama and Buchy 2001; Buchy and Subba 2003) or quantitative (Ahmed and Laarman 2000; Atmis 2007) in nature. Rather than seeking to rely on only one method to collect data, this thesis designed a mix of qualitative and

quantitative methods to identify and analyze the full spectrum of complexity associated with women's participation in community forest management. Different methods such as questionnaires survey, in-depth interviews, focus group discussions, participant observations etc. were used to collect data. The question of the relative strengths and weaknesses of questionnaire-based surveys and qualitative methods has been the focus of much interest by both researchers and practitioners (Kanbur 2003; Zeller et al. 2006; Kanbur and Shaffer 2007). Deploying a mix of methods helped to complement the lack inherent in each method and also to validate the results (White 2002; Kelle and Erzberger 2004).

The use of a survey allowed to identify the influence of multiple factors affecting women's participation. While identifying different factors that can affect women's participation in a given time and space is important, it does not fully account of the endogenous process of change taking place. Qualitative methods such as in-depth interviews, interviews, focus groups, participant observation complemented this lack by linking subjective understandings to statistical associations and thus revealing the unseen social dynamics.

In-depth interviews and participant observation were particularly helpful to examine and interpret social processes beyond formal institution and every day lives (Thompson and Barrett 1997). Examining women's everyday lives was important in our case because men's and women's spheres of work (Chhetri 2001), networks of information (Lama and Buchy 2002) and spheres of influence (Banjade and Ojha 2005) can be different in rural parts of Nepal. Use of this method helped to obtain subjective perceptions, negotiating mechanisms, the role of institutions and power relations with which individual women tend to participate in community forest management.

While subjective perceptions of individual women were elucidated using in-depth interviews, how women as a group influence the power dynamics at community forestry is important to understand what has been gained and what is yet to overcome regarding women's participation. Focus group discussions identified the similarities and differences in perceptions, feelings, attitudes and ideas that women have. Moreover, focus groups were also used as a platform to discuss the initial results obtained from quantitative and qualitative survey with the women participants. This interaction provided the women an opportunity to validate the results keeping the ethical standards that these women have the greatest likelihood of benefiting or being harmed by the participatory approaches like community forestry.

As this thesis demonstrates, a carefully designed mix of quantitative and qualitative methods can reveal unexplored dimensions and enrich the investigation. Thus, this thesis tries to draw attention away from the traditional "one-sided" measures of results and highlight the need for a more comprehensive analysis. The mix of methods employed in this thesis may provide a guiding frame to investigate multi-faceted research issues, not only limited to women's participation in community forest management.

6.4 Policy and Management implications

6.5 Policy and Management implications

There has been a fundamental shift over the last decade in approaches to forestry and conservation with the recognition for the active participation of local communities in all aspects of project design and implementation (Chakraborty 2001; Balooni and Inoue 2007). With an increasingly important role of providing ecological and economic benefits (Sinden and Griffith 2007; Fleming and Fleming 2009; Dhakal and Masuda 2009) and promising democratic rights (Pokharel 2005; Meynen and Doornbos 2004; Fleeger and Becker 2008), participatory approaches of natural resource management such as community forestry will continue to be an important approach of participatory management in Nepal. Moreover, the contribution of women, as a distinct social group in the forest sector, has been internationally recognized and the need for attention to gender equity in participatory programmes is stressed (Agarwal 2000; Ahmed and Laarman 2000; Cornwall 2003; Upadhyay 2005). Nevertheless, existing social inequities and discriminating power relations are reported to pose strong challenges to women's participation (Agarwal 2001a,b; Gupte 2004). This thesis offers valuable insights into these challenges and provide a dynamic approach for successful policy and practice of participatory programmes.

More specifically, this thesis examines the interaction of changing social context with existing institutions and also decode the conceptual foundations of women's participation within community forestry frameworks to suggest additional perspectives that might enhance women's participation.

6.5.1 Dynamic social context and changing power relations

Participatory approaches champion the role of community in bringing about decentralization, meaningful participation, and conservation (Pokharel 2004; Meynen and Doornbos 2004; McDermott 2009). As paper I describes, the poor conservation outcomes that followed decades of intrusive resource management strategies and planned development in Nepal have forced policy makers and scholars to reconsider the role of community in resource use and conservation. The community has been the core social planning unit in community forest management. The inherent conception of community as a small spatial unit, a homogeneous social structure, and as shared norms has been critiqued lately (Agrawal and Gibson 1999; Lama and Buchy 2002; Gupte 2004; Colfer 2004). These critiques also applied to an institutional approach (Agrawal and Gibson 1999) which they claim focuses on the multiple interests and actors within communities, on how these actors influence decision-making, and on the internal and external institutions that shape the decision-making process. A growing body of literature has documented different institutional processes and mechanisms that can affect the extent of participatory inclusion (Agarwal 2001b; Lama and Buchy 2002; Gupte 2004; Dahal and Capistrano 2006; Ojha et al. 2009) and benefit sharing (Maskey

et al. 2006; Dhakal and Masuda 2009). While these studies focus on how discriminatory practices are historically created and influenced by asymmetries of power and special interests, it is less obvious how they further an understanding of the way in which wider social processes such as migration interact with existing institutions and influence power relations. This study extends further by investigating the general settings in which institutions are embedded and concludes that they are dynamic and can change power relations within institutions.

Paper II and III, describe the changes in social context that affected women's power and participation in community forest management. As paper III elaborates, men's outmigration triggered a set of new needs for the left-behind women and the society that eventually helped to mould institutions and increase women's participation in community forest management. The large differences in participation between women with husbands at home and women with migrated husband draw attention to the broader contextual influences led forth by men's outmigration on women's participation and deliberations, beyond unique local and institutional community influences. These findings confirm that the general setting in which social actors are embedded are liable to change by wider processes (such as men's outmigration in this study) and that can possibly trigger situations leading to creative adaptation and change (Alvesson and Sköldberg 2000).

There is an urgent need within community forestry programme to identify these creative changes taking place in communities and provide institutional and legal support to complement positive and deter negative changes. This requires an understanding of the contextual influences within community forestry user groups, an identification of the major driving processes at a given time, and an analysis of the effect on power relations and social action. Not only is an awareness of context important in understanding the nature and magnitude of changing power relations, but it should also inform the (re-)design of participatory practices (Boyle 1998 in Cashmore et al. 2007). Contextual influences when combined with external, tangible but potential pressures can become conscious influences on peoples' participation and deliberation in participatory programmes (Robson and Kant 2009). Thus, supportive legal measures in community forestry programme should be provided to sustain the innovative practices.

Indeed, as Martello and Jasanoff (2004) observe, it is no coincidence that the implementation of the global environmental participatory agenda has remarkably rapidly led to a rediscovery of the local. Thus, having an understanding of the local contexts and their impacts on participatory policies is a development inherently required by the concept of participatory programmes, like community forestry and, hence, long overdue.

6.5.2 Participation as an adaptive governance process

Forest management in Nepal represents a continually evolving participatory programme where management and use rights to local groups have dramatically expanded, with a clear recognition that women's participation in community forest management is

essential and important (Lama and Buchy 2002; Upadhyay 2005). Paper I, in particular, illustrates the trajectory of forest management and indicates change in ecological, economic and social dimensions. Important in the change process is to recognize the type of expected change, the processes used to ascertain and measure the change, and the exerting (power) influences behind the change process, as the paper IV points out.

In pursuit of increasing women's participation in community forestry, it is important not to neglect the qualitative aspect of women's participation. In order to look beyond quantitative expansion (number of women only committee, number and position of women in executive committee, number of women attending general assembly etc.), focus on the qualitative aspect of women's participation is necessary. Adopting gender-friendly policies and programmes should go hand-in-hand with similar developments in communities as a whole. In the current situation, it seems that if women's participation in community forestry is to be sustained, it needs to reflect upon the mechanisms and contexts through which participation of some or all women is enhanced or hampered. As the paper IV argues, a participatory policy is thus needed to broaden the understanding of "change" resulting with women's participation. This necessarily requires a shift to understanding the underlying process, a more nuance approach through which change is measured, rather than limiting itself to statistical data. When participation is understood as a transformative process, it requires both: the requirement of a representative share and the changes in discriminatory values and culture.

To understand the changes in values and culture due to participation in community forest management, the perspectives and mechanisms using which women participate in forest management should be well understood. The majority of natural resource including forest governance studies point to the prevalence of structures in affecting women's participation (e.g., Lama and Buchy 2002; Gupte 2004) with few exceptions (Nightingale 2006; Arora-Jonsson 2008b) While these factors are important, the findings of this dissertation signal to the need of exploring women's agency to better capture the perception changes and mechanisms associated with women's participation, rather than attempt to apply structural perspectives alone. It is important to know how and where internal change takes place, just as it is important to know how discrimination takes place. An agency perspective on women's participation can aptly signal to the recurring practices of negotiation, contestation, resistance, reproduction etc. that women tend to use. This implies that women participating in community forest management are to be understood as adaptive decision makers who are shaped by social structures and also creative beings that construct meanings and social structures. When approached in this manner, a better insight of the undergoing social process can be offered, which involves providing an actor-centred schematic that is dynamic but also situated within institutional and cultural contexts.

This perspective can also enhance the participation process by incorporating the dynamic web of power relationships beyond formal setting (such as executive

committee, general assembly, official meetings etc.). Social processes beyond formal institutions and practices may seem little to do with formal procedure of women's participation and thus, often neglected. Paradoxically, the formal institutional analysis often fails to grasp and respond to crafting different mechanisms that addresses tensions between formal and informal practices while seeking to promote women's participation. Paper IV documents women's underlying tensions and approaches in both formal and informal settings. In addition to women's entry and interactions in formal structures, this paper points the need to uncover the often hidden exchanges of interactions and logic and the extent to which such interactions and logic impact formal deliberations (Scott 1990, Wilshusen 2009), independent of whether they occur in the informal or the formal settings. Thus, this type of analytical perspective is helpful to locate how diverse social practices with different logics may be in play, producing largely invisible tensions that can have significant impacts on participatory policy and practice.

Thus, if policy makers and researchers want to empower women through their participation in community forestry and other participatory programmes, they must determine what women at communities perceive as relevant factors (supporting and constraining factors for participation) for change and how do women approach to these factors. Women may have their own reasons for social actions and researchers as well as practitioners involved in participatory programmes need to learn the reasons women have. Indeed, identifying these answers can help to better understand the power play, the processes through which power positions gets shifted, deconstructed and also reproduced in community forest management. People create society, society creates people, who in turn create society, is a continuous process (Newman 2006:97). Important in this process is to identify reproducing patterns of discrimination and to deter them using different legal measures.

Given the multiplicity of institutions and plurality of mechanisms associated with women's participation, a single uniform strategy, almost certainly cannot increase women's participation. When participation is understood as a reflexive and adaptive governance process, the associated dynamics of agency and structure in both formal and everyday practices can be captured. The positive change can be used to strengthen the learning process while resistances can be tackled using innovative strategies. Women's participation in community forest management, thus, has to be a socially just change process that is both reflexive and adaptive to the changing social context and is transformative against discriminatory power relations. The chances of women's participation in community forest management will be far greater if policy framing and implementation takes these considerations into account.

6.6 Perspectives for future research

This study used case study approach and employed a mix of methods to obtain results. This research provides comprehensive, empirical insight into the effects of men's

outmigration and women's participation. However, the results must be interpreted within the context of certain methodological limitations: the empirical data are derived from one case study in one institutional context (Nepal) and relate to the participation of women in one type of programme (community forestry) at a certain relational context (Mid-hills, high rate of men outmigrating, forest-dependent communities). These outcomes are thus dependent on the institutional, legal, and socio-political context which needs to be taken into account when inferring comparable conclusions.

The present study offers several important research directions for further studies. Men's outmigration is an increasingly dominant activity in many developing countries including Nepal. Because this study examined the effects of men's outmigration on women's participation while controlling ethnic composition, economic status and forest dependency, further study can investigate the influence of these variables on the effects of men's outmigration. Likewise, the process through which men's outmigration can lead to a process of social transformation to empower women through an active engagement with community forestry need to be investigated. While this study was limited to understand the effects of men's outmigration in women's participation in forestry, further empirical study using the framework of the study can be used to analyze women's participation in agriculture, health, climate change etc.

In addition, using the methodological framework of the present study, more research on understanding how women's agency interacts amidst limiting structure in other participatory programmes can be of interest. Likewise, research to develop extensive qualitative indicators to measure the extent of women's participation in participatory programmes is also required. Moreover, further research need to decode the assumption of women as a 'unified mass' in participatory programmes and analyze the intersections of discrimination that can vary across different types of women (such as class, caste, education etc.).

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PART B: PAPERS

Paper I

Development and status of community forestry governance in Nepal

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Development and status of community forestry governance in Nepal

Abstract

Nepal has increasingly gained world-wide recognition in participatory forest management, primarily through “community forestry” programme. This paper sketches trajectory of forest management policies and practices in Nepal and analyzes achievements and pitfalls associated with community forestry. The focus is on analyzing the relations amidst good forest governance, sustainable livelihoods and forest conservation. Our analysis indicates that community forestry programme has been successful to meet the twined goals of forest conservation and socioeconomic transformation through power devolution, participation and good governance. Encouraged with such achievements, Nepal has envisioned attaining the national goals of poverty alleviation and the global goals of Sustainable Development by strengthening good forest governance, sustainable forest management, and livelihood improvement. Though, there are adequate challenges, mostly socio-economically, community forestry has been a ‘Learning platform’ that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

Keywords: forest management, good governance, livelihood, community forest user groups, Nepal

Introduction

Nepal is a landlocked Himalayan country situated between India and China. Nepalese Himalaya has ten out of the world’s 14 peaks over 8,000m, 127 peaks over 7,000m and other 1,311 smaller peaks over 6,000m (Pandey 1995). Geographically, mountains, which are the least productive area, cover 35.2%, whereas mid hill occupies 41.7% and the most productive flat land of Terai, which has an elevation less than 300m, occupies 23.1% (MFSC 2002). Based on land use classification, Nepal constitutes 29% of forest, 10.6% of scrubland and degraded forest, 12% of grassland, 21% of farmland, and the rest 7% of uncultivated lands (LRMP 1986). Deforestation was major challenge before the 1990s. It has been reported that between 1978/79 and 1990/91 forest cover decreased at an average annual rate of 1.7% (1.3% in the Terai and 2.3% in the Mid-hills) and scrublands decreased at an annual rate of 0.5% (DFRS 1998).

Similarly, land use practices are more intensive than its potentiality as per soil capability classification. For example, only 4.1% is suitable for grazing whereas at least 22.8 % is being utilized for grazing (LRMP 1986). Nepal has abundant fresh water river systems,

with the flow of approximately 200 billion cubic meters per second, which have potentiality of generating 45,000MW hydroelectricity. It is endowed with plethora of biodiversity because of its unique location in the transition of Eastern and Western Himalayas; and between Palaeartic and the Indo-Malayan bio-geographical realms. The country, which occupies only 0.03% of the World's terrestrial mass, exhibits the following share of global biodiversity: 5.1% bryophytes (Mizutani et al 1995; Furuki and Higuchi 1995); 3.4% pteridophytes (Iwatsuki 1988); 5.1% gymnosperms, 2.7% angiosperms (Koba et al. 1994, Akiyama et al. 19982); 2.6% butterflies (Smith 1994); 1% fishes (Shrestha 2001); 1% amphibians (Shah 1995); 1.6% reptiles (Shah 1995); 9.3% birds (Grimmet et al. 2000); and 4.5% mammals (Suwal and Verheugt 1995). Diversity of forest is also very high due to climatic and altitudinal variations. Stainton (1972) classified Nepal's forest into 35 different types. Among them, ten major forest types with some common species are presented in below (Table1).

Table 1: Diverse forest types and common forest species in Nepal

SN	Type of Forest	Altitudinal Range	Common Species
1	Tropical forest	below 1,000m	<i>Shorea robusta</i> ; <i>Acacia catechu</i> , <i>Dalbergia sissoo</i> , <i>Michelia champaca</i> <i>Bombax ceiba</i> <i>Terminalia/Anogeiss</i>
2	Subtropical broad-leaved forest	1,000-2,000m	<i>Schima wallichii/Castanopsis indica</i> , <i>Cedrela/Albizia</i> , <i>Alnus nepalensis</i>
3	Subtropical pine forest	1,000-2,200m	<i>Pinus roxburghii</i> (South aspect in Central and Western Nepal)
4	Lower temperate broad-leaved forest	2,000-2,700m in the west and 1,700-2,400m in the east.	<i>Alnus nitida</i> , <i>Castanopsis tribuloides/C. hystrix</i> , <i>Lithocarpus pachyphylla</i> , <i>Quercus leucotrichophora/Q. lanuginosa</i> forests and <i>Q. Floribunda</i> , <i>Q. lamellose</i> , <i>Lithocarpus pachyphylla</i>
5	Lower temperate mixed broad-leaved forest	1,700-2,200m	Species of Lauraceae family.
6	Upper temperate broad-leaved forest	2,200-3,000m	<i>Quercus semecarpifolia</i>
7	Upper temperate mixed broad-leaved forest	2,500-3,500m	<i>Acer spp</i> , <i>Rhododendron spp</i> , <i>Aesculus spp</i> , <i>Juglans spp</i>
8	Temperate coniferous forest	2,000-3,000m	<i>Pinus wallichiana</i> , <i>Cedrus deodara</i> , <i>Cupressus torulosa</i> , <i>Tsuga dumosa</i> and <i>Abies pindrow</i> , <i>Picea smithiana</i> , <i>Juniperus indica</i>
9	Sub-alpine forest	3,000-4,100m	<i>Abies spectabilis</i> , <i>Betula utilis</i> , and <i>Rhododendron Species</i>
10	Alpine scrub	above 4,100m	<i>Juniperus recurva</i> , <i>J. indica</i> , <i>J. communis</i> , <i>Rhododendron anthopogon</i> , <i>R. lepidotum</i> , <i>Ephedra gerardiana</i> , <i>Hippophae tibetana</i> , <i>Caragana versicolor</i> , <i>Lonicera pinosa</i> , <i>Rosa sericea</i> and <i>Sophora moocroftiana</i> ,

History of Forest management and evolution of community forestry

In Nepal, forest policy has been developed and practiced primarily in response to the negative consequences of preceding policies (Pokharel et al. 2005). Therefore, there are different stages with varying modes of the forest ownership and management schemes. Hobley and Malla (1996) have classified Nepal's forest management history into three important periods, namely privatization (1768-1951); nationalization (1951-1978) and populism (1978 onward).

Privatization (1768-1951)

Prior to 1950s, forest was managed in traditional indigenous ways. Historically, the Nepalese feudal states used forest primarily for securing revenue and bolstering its military strength (Guthman 1997). From the sixteenth century to the nineteenth century, the state encouraged hill forest to convert into agricultural land to increase land tax, and protected Terai forest for the military protection of the country against expanding British India Company (Blaikie et al. 1980; Mahat et al. 1986; Blaikie and Brookfield 1987; Ives and Messerli 1989). After 1846, forests were handed over to local elites in various forms such as birta, talukdar, kipta, guthi, and jagir (salary) for serving the government. The forests were in control of those elites and were then inherited within the family. In 1907, an official document (lalmohr) provided guideline for such system (Hobley and Malla 1996).

In lalmohr, according to Adhikari (1990), people were required to ask elite (talukdar) had they required timber, and talukdar was required to ask people had he required timber. Local people had free access to the forest for limited commercial value of fuelwood, fodders, and medicinal herbs (Hobley and Malla 1996); but they used to get timber by doing labor or other forms of gifts and services to those elites. Forest watchers were hired and paid in kind by villagers for the protection of forest from unruly activities. Forest as an integrated constituent of the farming system (farm, forestry and livestock), people were managing the forest since a long ago (Arnold and Campbell 1986; Gilmour and Fisher 1991; Messerschmidt 1993). As Swallow and Bromley (1992) stated suitable informal rules practiced through generation yields "governance without government", the forest condition was very good despite the absence of appropriate forest laws to manage national forests until 1951 (Mahat et al. 1986).

Nationalization (1951-1978)

During the 1950s, the global paradigm of development was based on Industrial development model with top down approach. Renowned economists advocated that the benefits of the industrial development trickle down to local people and country could achieve economic prosperity (Gilmer and Fisher 1991). Influenced with it, Nepal realized that the forest is important source of revenue which can be channelized for the industrial

revolution of the country. Moreover, forest based industry itself could contribute to the great extent for the economic development. But the large parcels of the forest were privately owned and were controlled by few local elites. According to Regmi (1978), at least one third of the total forest was under Birta (privately owned) and three quarters of the land belonged to Rana Family, the ruler of the country before democracy. So, through the Forest Nationalization Act (1957), Nepal nationalized all forest of the country (Gilmour and Fisher 1991).

Though the hidden intention of the nationalization was to resume the control over privately owned forest, local people interpreted the legislative action as “taking forest away from the people” (Fisher 1999). Irrespective of the purpose, it was not followed by effective mechanism of control and management. As the result of people perception and to preserve the property right of ownership, forest holders began to convert forest into agriculture. Thus, the nationalization led to massive deforestation primarily for converting the forest land to other land uses so that the criteria of being national forest are escaped (Schulte and Sah 2000). The Department of Forest neither was able to manage the forest effectively nor was able to control the deforestation, despite of having strong legal backing.

Considering this phenomenon as the result of insufficient legal support, forest officials were given more authority for protecting the forest through Forest Act of 1961 and the Forest Protection (Special Arrangement) Act of 1967. Though the forest was nationalized and officials were made highly powerful, forest deforestation continued and management endeavours from government were unable to control (Wallace 1981). Eventually, forest nationalization converted the limited access people controlled forest to open access common property resources (Hobley 1985; Ostrom 1990; Messerschmidt 1993). According to Agrawal and Ostrom (1990) ignorance of existing local forest management system and absence of effective management and monitoring system of the government led the widespread deforestation.

The fate of common property resource is predicted by two authors contradictory to each other. In “An Inquiry into the Nature and Causes of the Wealth of Nations”, Smith (1776) popularized the idea of invisible hand which states when rational individual act beyond self interest with regard of others, the output of common resources maximizes. Though the notion is amazing, to what extent it is pragmatic is questionable (Ellerbrock et al. 2008). On the other hand, according to Hardin’s Tragedy of Commons (Hardin 1968), when the resource has unlimited open access, each rational individual is irresistibly tempted to maximize his gain as the benefit remains fully with him and negative effect of the decision is only a fraction as that equally affects to other individuals. Thus, each individual rush for the maximum benefits that ultimately ruins the common resource (Hardin 1968). Common resource gives a feeling that if I do not use the last unit, someone else will do. As of Costanza (1991), the activities are individually rational but collectively undesirable. In addition to inherent complexity of common resources: excludability and subtractability (Feeny et al. 1990); the situation of ‘everybody’s

responsibility is nobody's responsibility', very usual in common property resources, emerges and resource retrogression exacerbates (Lomborg 2001).

Out of these two contrasting ideas, forest in Nepal suffered through the Hardin's Tragedy of Commons. Sanera and Shaw (1996) argued that the cause of Tragedy of Commons is due to the lack of ownership and property rights. After nationalization, increased demand of the forest product due to rapid population growth, massive deforestation and conversion to agricultural land through terracing in the steep Mid-hills resulted high soil erosion, landslide in the Mid-hills and floods, siltation in the lower plains (Guthman 1997). Adoption of animal dung as a response of dwindling fuelwood supply contributed decreased productivity in the farm, which required more farm land to meet the food supply consequently pushing for more deforestation (Ives and Messerli 1989). Such massive deforestation in the Himalayas was considered to be the root cause of the severe flood in the Ganges and its regional impact on agriculture in early 1970s (Myers 1986). Between 1964 and 1985 Nepal lost about 570,000 hectares of forest (HMG/N 1988).

Linking widespread deforestation and rapid population growth as the predominant cause of downstream siltation and flooding in the Ganges, Eckholm (1975) propounded the "Theory of Himalayan Environmental Degradation." After the theory, the environmental crisis of Nepalese Himalaya received international solicitation (Guthman 1997) The Munich conference on "The Development of Mountain Environment" concentrated on the deterioration of Nepalese Himalayas. Sandra Nichols in 1982 with the financial support of World Bank produced a movie: *The Fragile Mountain* (Ives 1987). This also played a vital role to draw the global attention on the associated problems of forest deterioration. The situation was highlighted by the World Bank's prediction that all the accessible forests would disappear in the Mid-hills by 1993 and in the Terai by 2003 unless immediate movement to counteract the deforestation rate was commenced (World Bank 1984). As such, this idea of ecological doom regarding Nepalese forest resource base served as a benchmark to influence and evaluate the impact of forest policies afterward.

The influence of external agent, especially the World Bank, is crucial through its financial leverage to large sectoral funding (Rowchowdhury 1994). The World Bank pressurized the government to take some immediate steps to counteract the situation. Consequently, in the ninth national forestry conference of Department of Forest in 1975, the deteriorating condition of the hill forest was rigorously discussed. The proceeding of the conference laid foundation for the national forest plan of 1976 which recognized the inability of government to protect the forest without the involvement of people (Hobley 1996). This plan took the major shift of the government policy to manage the forest. Through the national forestry plan of 1976, people's participation was recognized as a crucial aspect to counteract the challenges and was reflected in forest policies of 1978. In 1978, Nepal introduced a policy to hand over forest for the protection and management to local political administrative bodies in the form of Panchayat Forest and

Panchayat Protected Forest (Fisher 1999). In the sectoral policy of forestry, Sixth five year plan of 1981 also emphasized community involvement for the protection, management and utilization of forest. Decentralization Act (1981) further empowered local political bodies to manage the local resources including forest.

Populism (1978 onward)

Globally, concept of Community Forestry emerged and became popular partly due to the failure of industrial development model to address socio-economic development and partly, due to the increasing deforestation and degradation (Gilmour and Fisher 1991). The concept, came in vogue after Food and Agricultural Organization published a report on 'Forestry for Local Community Development' (FAO 1978), and was further consolidated by the theme of 1978 Eighth World Forestry Congress, "Forestry for People", held in Jakarta, Indonesia (Gilmour and Fisher 1991). Under these global scenarios, in the Ninth Forestry Conference held in 1978, government officials, project staffs and donor agencies evaluated the progress and shortcomings of Panchayat Forest and Panchayat Protected Forest and decided user group model of forest management. As an outcome of this workshop, Master plan for Forestry Sector (MPFS) was developed.

A Master Plan for Forestry Sector (HMG/N 1998) prepared for 21 years states: the major policy of forestry sector is to encourage community participation by giving the full responsibility of forest management. It also allocated the 47% of total budget of the Ministry of Forest for community forest and emphasized on the reorientation of foresters for the new role of facilitation, from the traditional policing to encouraging participation of local communities in forest management. The Community forestry programme, the largest component of the MPFS was explicitly designated to meet the fundamental requirement; fodder, timber and fuelwood, of people. Guided by MPFS, along with the establishment of multi-party democracy in 1990, Nepal promulgated Forest Act, 1993 (HMG 1993) and Forest Regulation, 1995 (HMG 1995).

Through the series of restructuring and reformulating policies, Forest Act 1993 and Regulation 1995, being supported by Master Plan for Forestry Sector (MPFS), legally commenced a provision that a group of people forming the community forest user group (CFUG) can get part of the national forest as community forest to manage, protect and utilize after approving the operational plan with District Forest Office. Those legislations recognized CFUG as an independent local institution for managing community forests on an equitable and sustainable basis. These legal flexibilities have made community forestry as one of the most successful programmes of Nepal (Bhattacharya and Basnyat 2003).

After having strong legal backing, community forestry got the momentum and is said to bring numerous significant effects both, in forest and socioeconomic status of people. As a result, target of community forestry programme transformed to poverty reduction and Millennium Development Goals attainment. The third national workshop on

community forestry held in 1998 projected the aim of community forestry programme beyond mere fulfilling the basic needs to achieving national goal of poverty reduction and stated four pillars –social justice, equity, gender balance and good governance to achieve the aforementioned goal. Out of eight Millennium Development Goals (MDGs) eradicate extreme poverty has received the utmost attention, and 115 nations have committed at the United Nation (2000) at reducing the level of global poverty by half until 2015. The Tenth Five year Plan has also aimed at poverty reduction (HMG/N 2002). Forestry Sector Coordination Committee has identified and stressed to focus on the second-generation issues of community forestry such as livelihood promotion, good governance and sustainable forest management to mainstream and add relevancy to the programme at the present context.

Status of community forestry

Nepal couldn't make any progress in the most of the sectors even after democracy due to instability and inability of the government and high corruption (World Bank 2001); but the community forestry programme has remained an exception. During the two decades, community forest management policies and procedures have dramatically been shifted parallel to the changing objective of forest management from fulfilment of subsistence needs to achievement of sustainable economic transformation (Giri 2005). It has been seen that given relative security of the tenure of the forest management, local communities manage the resources expecting better condition in future.

Currently, at national level, 1,640,239 households (35% of total population) are managing the 1,187,000 hectares forest (25% of total forest land) of Nepal. Until 13 Nov. 2005, total of 14,201 CFUGs (600 women only user groups) have been formed covering an area of 1184,821 hectares (average being 83.43 hectares /CFUG and 0.73 hectares /household) with the involvement of 1,633,408 (avg. 115/CFUG) households (DoF 2005). In 2002, the annual income of the Department of Forest was Nepalese Rupees (NRs.) 550 million and total budget 680 million, but the Community Forestry which is only 25% of total forest, earned about 740 million (more than US\$ 10 million) which is higher than the annual budget of the Department of Forest and is almost 42% of the annual budget of the Ministry of Forest and Soil Conservation (Kanel and Niraula 2004). This implies high efficiency of community based forest management. Inspired with the successful examples of community forestry, the fourth national workshop on community forestry in 2004 stressed its role to achieve the Millennium Development Goals through good forest governance, sustainable forest management and livelihood.

At present, hundred percent of benefits that come out of community forestry directly goes to community forest user groups and contributes in multiple aspects of the local development. The following diagram (see Fig. 1) illustrates the pattern of fund expenditure of community forestry in the national level (Kanel and Niraula 2004). As seen below, the highest priority has been in the community development activities

(36%) which include road, school, irrigation, community buildings, drinking water supply, and physical infrastructures and so on. The second most prioritized aspect is forest development activities (28%). Forest act and regulation have the mandatory provision of 25% total fund to be spent in forest management but communities are spending higher than the obligatory level which implies that local communities are much more responsible to forest development than they are thought to be. Even though, the amount spent in pro poor programmes is very low, there has been good start to address poverty reduction target of the country through forest management.

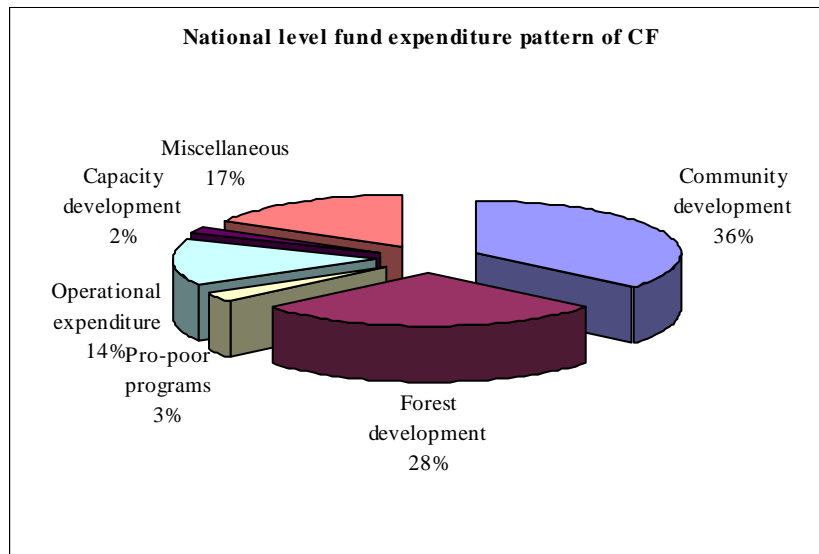


Figure 1: Fund expenditure pattern of Community Forestry in Nepal

(Source: (Kanel and Niraula 2004)

Some of these activities are directly related to Millennium Development Goals. For example, in eastern Nepal, forest user groups have been able to invest US\$327,000 generated by the sustainable use of forests over ten years in formal school education, informal literacy programmes for women and the poor and scholarship for poor students (Mayers 2007). This is an example of Community Forestry contributing to one of the Millennium Development Goals (MDG): achieve universal primary education, promote gender equality and empower women, the second and the third goals of MDG (Mayers 2007).

Several impact studies of community forestry across the country have concluded that community forestry has brought significant favourable alteration in the socio-economic status of the community (Schereier et al. 1994; Virgo and Subba 1994). Some community forests have contributed in road, school, irrigation canal, health post etc which has caused several direct and indirect positive impacts upon the livelihoods. Furthermore, community forestry has brought supportive influences on agriculture production, income and employment generation, biodiversity conservation, social unity and literacy in society. So, community forestry has brought a change of great

socioeconomic significance in rural society (Branney and Yadav 1998; Malla 2000; Pokharel 2004; Pokharel et al. 2005).

However, there are plenty of cases that report the negative impact of community forestry programme upon the livelihoods of poor and forest dependent people (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003). For instance, Gentle (2000) stated that community forestry programme has widened the gap between the poor and the rich people involved in community forest management. Elite groups in the villages dominate decision-making and often neglect the interest of other people. Participation of poor and disadvantaged groups in community forestry is very low while the local elites (high social status, wealthy and educated) are influential in local decision-making processes of community forest user groups (Gilmour and Fisher 1991). Consequently, an unequal distribution of community forestry benefits in favour of local elite is common in many community forest user groups (Maharjan 1998; Brown et al. 2002). This variability in community forestry outcomes indicates an intricate relationship amidst community forest governance, forest resource status, and livelihood of people which is dealt below in detail.

Good forest governance

Forest governance is defined as the set of principles and rules of forest resources management under which power is exercised and practiced in all spheres from private to public and the relationship between the state and its citizens, civil society and the private sector (Pokharel and Niraula 2004). It can have different meaning at different context. But, for poor and marginalized people, good governance means an enabling environment with higher inclusion and reduced marginalization. That means greater opportunity for their involvement in public policy making, greater likelihood of being treated equally by the law, more space to associate and pursue interests, and a better chance of bureaucrats behaving responsibly towards them (Pokharel and Grosen 2000).

The prevalent hierarchy in Nepalese society among rich and poor, low caste and high caste, male and female is the greatest challenge for the smooth functioning of any development endeavours. Due to such hierarchy, there is the degree of social, political and economic exclusion resulting to poverty. Mostly, women and ethnic groups are left out of the mainstream of development as they lack voice, empowerment, representation and access to economic opportunities. Therefore, weak governance is the key determining factor to exacerbate the poverty (HMG/N 2003).

However, surprisingly, community forestry has exhibited better governance. A number of studies (Malla 2000; Dev et al. 2003; Pokharel 2004; Pokharel et al. 2005) have revealed that community forest user groups are increasingly being more responsible, accountable, transparent, compliant of rules, laws and decisions, decentralization and devolution of power and authority, defined roles and responsibilities, pursuant of participatory decision-making, gender sensitivity, equitable representation and user balance, bi-directional flow of information horizontally and vertically. These are the

indicators of good forest governance (RECOFTC 2001). As an example, in Dolakha, Ramechhap and Okhaldhunga districts of Nepal, where Nepal Swiss Community Forestry Project is supporting, the percentage of household membership, in community, of the total district population has increased from 18% in 1995 to 76% in 2004; women in community forest user group committees have increased from 21% in 1995 to 35% in 2004. Representation of women in key decision making positions such as chairperson and secretary has also increased.

Similarly, Dalit's representation in community forest user group committees has increased proportionally with district population from 3% in 1995 to 11% in 2004. Likewise, representation of ethnic minorities in community forest user group committees has also augmented (Pokharel et al. 2005). One of the positive impacts of the current forest policy is enhanced social and human capital of local people. In particular, inclusion and representation of marginalized communities such as poor women, socially excluded groups and people from remote areas in leadership positions of Community Forestry governance has occurred at local level. These people later have been able to competitively acquire leadership positions in local governments (Gronow et al. 2003).

Pokharel (2005) stated that community forest user group (CFUG) are functioning as a small nation (Box 1) delivering services analogous to 16 ministries like election of executive committees, budget allocation, and contribution in road, school etc. So, good governance of each community forest user group could facilitate achieving the national targets of the policies and strategies

Box: 1 CFUG as a small nation (Pokharel 2005)

1. Parliamentary system-	Election/selection of executive body
2. Ministry of Finance	Management of CFUG fund, loan flow to the users, present annual record of income & expenditure in the assembly
3. Ministry of Law and Justice	–Conflict resolution relating to access and control over resources forest boundary problem etc
4. Ministry of Supplies	Supply forest products goods & services to communities
5. Ministry of Cooperatives	CFUG networks and federation safeguarding user's rights
6. Ministry of Home	Patrolling and protection of forests against destructive factors
7. Ministry of Environment	Activities conducted relating soil conservation and watershed management
8. Ministry of Agriculture	Support to users in vegetable farming, livestock husbandry, fishery, bee keeping, construction of irrigation canal
9. Ministry of Physical Planning	Construction and maintenance of community building, drinking water, bridge etc
10. Ministry of Women and Social Welfare	Focus on situation of women, dalit, members from ethnic minorities and remote places
11. Ministry of Education	Support in scholarship, teacher's salary, school building and furniture etc
12. Ministry of Transport	Fund investment or labor contribution in constructing road/trails
13. Ministry of Communication and Information	Public hearing, public auditing, information flow both vertically & horizontally
14. Ministry of Tourism	Ecotourism by constructing picnic spot, temples, recreational spots
15. Ministry of Health	Investment in health post, medicine, awareness in sanitation.
16. Ministry of Forest	Forest management, sivicultural operations, harvesting with growing stock assessment

Nevertheless, the results are not smooth throughout the country (Varughese 1999; Chakraborty 2001; Schweik et al. 1997). There are plethora of studies those have reported negative consequences on poor people after community forestry. After the community forestry has been formed, degraded forest are closed off to enhance the forest regeneration, this act however affects the forest dependent poor people (Edmonds 2002; Springate-Baginski et al. 2001). Community forest user group committees and user group decision-making are dominated by elites (Dougill et al. 2001). Though the forest policies have been decentralized and devolved; the power is vested among the handful of influential elite people (Azhar 1993; Robbins 2000). Low caste people and women who are most dependent on the forest have marginal role in decision making process (Mehta and Kellert, 1998, King et al. 1990; Hausler 1993). Roles and power are distributed according to defacto power structure and political balance of the system (Giri 2006).

Despite the power devolution effort of government from central level to local indigenous people/institution level, the results are heterogeneous. Certain groups unfairly use their increased power for their personal interests and agenda and women and minorities who are traditionally powerless are hardly empowered (Kellert et al. 2000). Such a situation has led to “participatory exclusions” (Agrawal 2001) within users in Community Forestry programme. Therefore, even though enhanced through liberal policies, community forest policies in practice have been acted upon as ‘centralized decentralization’ (Hobley 1996; Giri 2006) hampering the deliberative interactive mechanisms (Giri 2006) that community forestry policies can potentially offer if well-governed.

Sustainable Forest Management

Forest management activities of community forest user groups include plantation in the degraded forest, enrichment planting in the existing forest, their protection, management of already established forest, and control of fires, illicit tree felling, grazing. Consequently, the major achievements have been protection of the forest, expansion of greenery, rehabilitation of degraded land and restoration of biodiversity (Schreier et al. 1994; Virgo and Subba 1994; Collett 1996).

Community forestry in Nepal is especially successful in forest conservation (Springate-Baginski et al. 2001; Gautam et al. 2002, 2004; Yadav et al. 2003; Thoms 2008). The comparative studies of the forest before and after community forestry have shown the better establishment of plantation, regeneration, and faster growth of tree (Roberts and Gautam 2003). People are applying their indigenous knowledge to protect, and manage forest for fulfilling their basic needs which are the primary goals of community forestry (Gilmour and Fisher 1991). Some community forest user groups are involved in active forest management such as the establishment of experimental plots to investigate the effect of different silvicultural treatments and their application in larger scale. As a result, dramatic improvement of forest after the community forestry programme has been observed. For example, Branney and Yadav (1998) revealed the increased total number

of stems per unit area by 51%, basal area by 29%, increased active forest management from 3% to 19%. In a study of 135 square Km watershed area, Gautam et al. (2003) found decreased number of forest patches (395 in 1976, 323 in 1989, and 175 in 2000) and continuously increased area per patches implying the connectivity through forest regeneration.

But, most of the community forest user groups are protection oriented. They are only removing dead, dying, fallen trees, and leaf litter. Due to such passive management, using forest just for the subsistence needs, the productivity of the forest is not completely utilized (Sowerine 1994; Shrestha 2000; Larsen et al. 2000; Edmonds 2002; Malla et al. 2003; Pandit and Thapa 2004; Yadav et al. 2003). Hill (1999) estimated NRs. 560 per household per day as the loss of not conducting active management in community forestry. Moreover, community forest user groups are extracting fewer products than the capacity of forest. In a study from Dolakha district, Koirala (2006) found that the capacity of forest to supply the products has dramatically improved: 134% increase in timber, 405% increase in fuelwood, and 582% increase in fodder from 1999/2000 to 2003/2004 (see Fig. 2). Demand of the forest product is higher than the prescribed supply of those products. But, community forest user groups are taking less forest products than the forest can supply. It reinforces that community forest user groups are strictly protecting the forest with minimal extraction. Therefore, it has been essential and challenging to expedite active forest management- extracting the overstocked product and enhancing the productivity to the fullest potentiality of the forest.

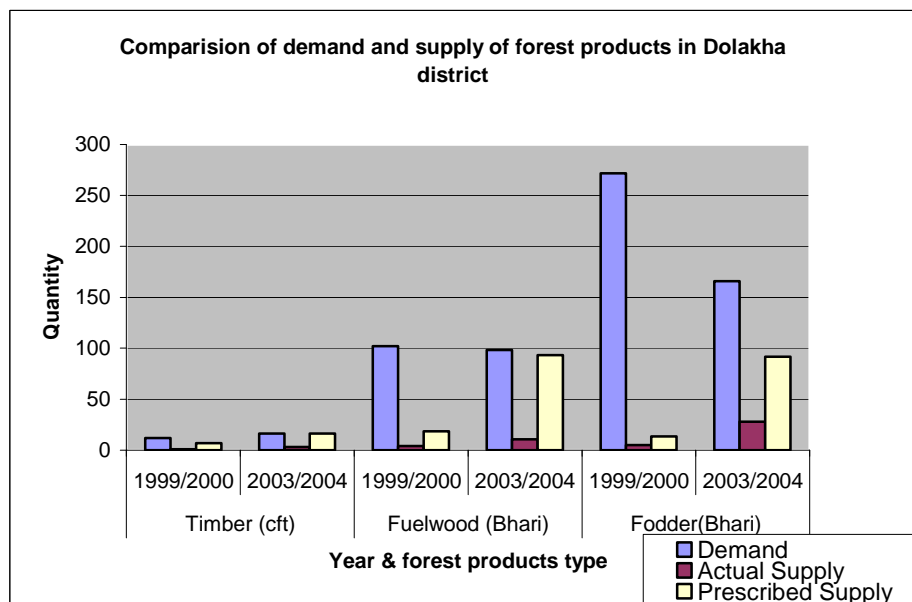


Figure 2. Comparison of demand and supply of forest products in Dolakha district (Koirala, 2006)

Sustainable Livelihood

According to the sustainable livelihood framework (see Fig. 3), a system or an individual can generate sustainable livelihood outcomes and strategies mobilizing the livelihood capitals (DFID 2002). Pokharel (2004) considered community forestry as the most successful programme in generation of livelihood capitals; natural capital (forest itself), human capital (acquiring expertise), financial capital (CFUG Fund), social capital (CFUG networks), physical capital (infrastructures like road, schools) (Dev et al. 2003). Forest also includes the capability benefits such as opportunities for social networking and skills development during user group formation, through income generation, home improvement, improved trails, in-village drinking water sources, support to schools (e.g. salary, building materials, etc.), construction of community buildings, community roads, and village electrification (Thoms 2008).

Assessing these capitals in individual household for well being ranking, the user groups identify poor people. For identified poor, community forest user groups develops the provision of income generation activities like goat keeping, bee keeping, mask-carving, bamboo furniture and other benefits like reduced or no price for the fuelwood. Some community forest user groups collaborate with other groups to develop forest based enterprises like resin tapping, paper making and juice making industries and they give priority to poor in employment opportunities. To improve the livelihood of forest dependent poor people, Nepal Swiss Community Forestry Project introduced the concept of “FREE LIFE approach” which includes Free forest product for poor, Funds for them, their Representation in leadership positions, Employment, scholarship for Education, access to community forest Land, Inclusion in decision making processes, equitable access to Forest products, and income generating Enterprises. Based on their resources, community forest user groups develop livelihood strategies that motivate people’s participation and contribute in poverty reduction.

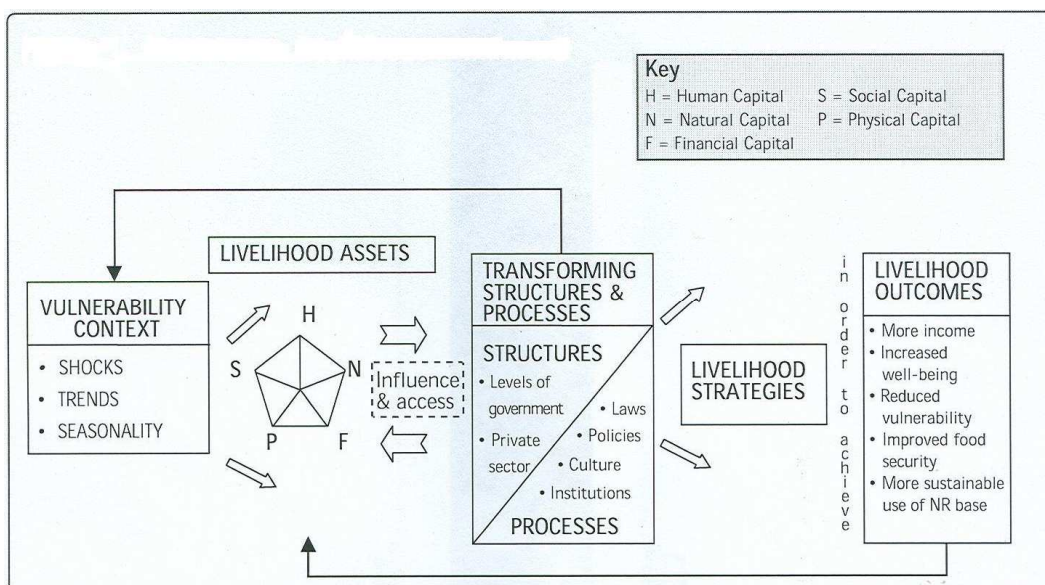


Figure 3 Sustainable livelihood framework (DFID, 2002)

For the livelihood of poor and disadvantaged, equity has been prime focus and increasingly being practiced. Equity is the special consideration for the marginalized section of the community (poor, women, dalits). It includes human rights and gender equity and the reversals, not for absolute but for levelling, of putting the last first and the first last to be considered in all contexts (Chambers 1997). This sort of substantial focus for them is against the widely existing socio-political system of hierarchical nature. Therefore, it is most challenging as it lacks the support of or even the consent of, the elite and affluent. Even the targeted population is not strictly adhering upon such proposition (Baral 1999).

Here is a good example of equitable benefits distribution, in other words, putting the last first, from three hill districts viz. Doalakra, Ramechhap and Okhaldhunga among 75 total districts in the country (Steenhof et al. 2007). Out of total 900 Community Forest User Groups (CFUGs) in that area: provision of equitable and positive discrimination for timber distribution is good in 41%, satisfactory in 46% and poor in 13%; provision of equitable and positive discrimination for fuelwood distribution is good in 52%, satisfactory in 38% and poor in 10%; provision of equitable and positive discrimination for non timber forest products good in 19%, satisfactory in 29%; and poor in 52%. Similarly, 8% of community forest user groups have allocated forest land, 7% has provided grant support and 24% has provided loan assistance to disadvantaged households to conduct various income generating activities. 13% of community forest user groups are providing scholarship to poor and disadvantaged students, 49% are delivering various humanitarian supports to the victims of natural disaster, 26% are helping in health and medicine and 17% are providing shelter support through goods and services to the poor. In all of these cases, there has been dramatic improvement compared to last three years (Steenhof 2007).

People have modified livelihood strategy to adapt communal rules of limited access to community forest by increasing the number of trees in the private land, keeping quality of livestock than large herds (Otsuka and Place 2000; Foster et al. 2000). But, there are some cases in which poorer households are negatively affected (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003) because of their high dependency on the forest and due to lack of other alternatives. Poor people, not having enough land depend on labouring, fuelwood collection and selling, charcoal production and blacksmithing. But, with controlled access, and limited use, those people are affected (Springate-Baginski et al. 2001).

Conclusion

Socio-economically poor but bio-physically rich Himalayan country, Nepal has passed through several stages in the history of forest management. National and international pressures are instrumental in shaping the forest management paradigm. The early

mode of tenured privatization had high degree of indigenous forest management with well balanced need fulfilment as well as forest conservation. But, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people transforming forest to open access common resource. As of Hardin's Tragedy of Commons, the deforestation and degradation of Nepalese forest and consequent regional flood disaster in lower plains laid the basis for Theory of Himalayan Environmental Degradation. In late 1970s, global recognition of role of forestry for local community development by Food and Agriculture Organization, and by Eighth World Forestry Congress in general and World Bank's alarmist view in particular pressurized the government to realize that without people participation government alone is incapable to manage the forest resources.

Slowly and steadily, legislative policies became more and more favourable to community participation and in early 1990s community forestry was fully legalized. After the legal recognition, community forestry in Nepal, especially in Mid-hills, has got momentum. Within two decades, it has been considered as the global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001). Comparing the predicted ecological doom in mountains of Nepal by The World Bank in late 1970s to the present recognition Nepal as a global leader in forest conservation through community forestry programme implies that Nepal has been an excellent evidence indicating a dramatic trajectory of forest change (from severe deforestation at one point to extensive regeneration at another point within two decades).

Now, the community forest has been established as a successful programme to improve the forest condition and livelihood of people (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Some of the crucial factors for the success of community forestry are dynamic and adaptive nature of the programme, restructuring and reformulation of policy and devolution of authority to local communities. Supportive policy framework has been the key factor that triggered motivation of local communities for their institutional arrangement to find themselves in transformed scenario and it got the greatest impetus after government legitimized the usufructuary rights of people (Hobley 1996).

The challenges such as fully empowerment of women, disadvantaged group and their role in leadership are highly prevalent and successes are not uniform throughout the country. Community forestry led devolution revolution (Thoms 2008) not only within the forestry but also in other sectors like watershed management and protected area management. Due to community forestry, society has been transformed as decentralized, participatory and equitable. However, as Nelson and Wright, (1995) stated, with devolution, there is a potential for either genuine local empowerment or abuse of new sources of power by local elites (Thoms 2008). Due to the former kind of output from devolution, community forestry is highly touted as the successful participatory model. But, at the same time the later types of output are also equally prevalent. Therefore, higher degrees of challenges such as centralized decentralization

(Hobley 1996; Giri 2006), participatory exclusion (Agrawal 2001), and not fully realization of equity, putting the last first (Chamber 1983) have emerged due to lack of perfectly good governance.

Though there are few discouraging social issues to be addressed, achievements in biophysical aspects such as restoration of degraded land, hill slope stabilization, biodiversity conservation, soil erosion control, reduced encroachment and sustainable harvesting of the forest product are very encouraging (Collett 1996). Despite of bottlenecks to evenly acquire successes throughout the country, achievements till date have reflected the great potentiality of community forestry. They have encouraged envisioning that achieving good forest governance, sustainable forest management and livelihood in each community forestry, Nepal can attain the national goal of poverty alleviation and global goal of sustainable development.

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Paper II

In the absence of their men: Women and forest management in the Mid-hills of Nepal

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In the absence of their men: Women and forest management in the Mid-hills of Nepal

Abstract

In Nepal, the management of community forests is based on the participation and decision making of forest users. The premise of its success is the involvement of the real users in forest conservation and management. The Nepal Forest Law identify women as key forest users and underlines the importance of their participation in community forest management. However, given the socio-cultural setting and the prevailing patriarchy, fostering women's active participation is challenging. Women are traditionally limited to private sphere and men tend to look after the responsibilities in the public sphere. However, the increasing trend of men's outmigration observed in the Mid-hills may offer a window of opportunity for women to become more involved in the public sphere and thus, be able to have a decisive influence in forest management issues. This paper investigates the factors that have increased the participation and decision-making level of women in two community forest user groups. Data were collected through focus group discussions, informal discussions and interviews with key informants. The results suggest that two key factors that allow women to take an active role in the management of community forests are: previous experiences with women's groups and the men's full support. Given the high prevalence of men's outmigration in the Mid-hills of Nepal, these results are relevant to formulate policies and strategies that foster women's empowerment.

Keywords: community forestry, community forest user group, men's outmigration, left-behind women, participation, decision-making, Kavre district, focus group discussion

Women's participation in community forestry

Promoting participation and decision-making of the less vocal and less powerful into participatory programmes has remained orthodoxy for development work. In the management of natural resources such as forests, the emergence and institutionalization of participatory programmes has taken various forms under umbrella terms such as social forestry, collaborative forest management or community forestry.

The concept of local people's involvement in natural resource use and management is not new. What might be new is the use of structured models of participation that are built around specific decentralized policy frameworks, to empower the local people. Community forestry is one of the highly acclaimed participatory programmes in Nepal that works along with the principles of decentralization (Winrock 2002). It aims to provide for the basic forest needs to the local people by bringing in their participation to

the programmes through the formation of community groups, widely known as “community forest user groups” (CFUG). CFUGs are cohorts of users of a certain forest at the local level (neighbourhood, ward or village) that enjoy use rights of the forest after the forest has been handed over from the state to the community. Each CFUG is governed by an executive committee that acts on the behalf of the general assembly of all members.

Participation is a dynamic process through which stakeholders of forest management institutions influence and share control over development initiatives, and the decisions and resources that affect them (Cornwall 2003). Participation in CFUG is defined in its narrowest sense in terms of nominal membership and in the broadest sense as a process in which the disadvantaged such as women have voice and influence in decision making (Agarwal 2001). According to Agarwal’s (2001) “ladder of participation”, participation is ‘passive’ if women may get some information about community forest management but lack any opportunity to make choices or influence the decisions, whereas an active participation is characterised as women’s increased voice and influence in different initiatives, whether solicited or not.

Whereas the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women’s participation and decision-making into such “participatory” processes has remained mostly a rhetoric (Buchy and Subba 2003; Gupte 2004). Indeed, evidence suggests that women’s involvement has mostly been “passive” in community forestry, represented in the form of women’s household entitlement to CFUG membership (Agarwal 2001; Cornwall 2003; Gupte 2004). As such, women are often simply position holders without the possibility to influence decision-making.

Empirical evidence indicates various factors that constrain women’s participation in community forestry. Some argue that the socio-cultural context of Nepalese society and the existing local power structure that provides more power to men can lead to “participatory exclusion” of women in community forestry (Agarwal 2001; Lama and Buchy 2002; Gupte 2004). The influence of the socio-cultural context may be maintained through resistance from village men on the basis of expected gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lachapelle et al. 2004; Upadhyay 2005), improper attention to women’s needs and aspirations regarding the timings of forest meetings, women’s lack of self-confidence (Lama and Buchy 2002; Lachapelle et al. 2004). As such, traditional gender roles assigning different responsibilities to women and men can also restrict women’s access to natural resources. As a result, women are frequently excluded from decision-making in community forest management.

While the effect of socio-cultural context of the community has been reported to affect women’s inclusion and decision-making in community forestry, social-cultural context are not static but undergo continuous negotiations, adaptations and changes under

different mediating factors. Men's outmigration has been widely reported as one such factor to bring forth negotiations and social transformation in the society by (re)structuring of traditional gender roles, increased access to resources and greater decision-making powers (Hadi 1999; Hadi 2001; Zachariah and Rajan 2001) and makes women more active in community development activities and farming (Thelma et al. 2005; Kaspar 2006).

Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper aims to explore and examine in what ways rural women's participation and decision-making in community forest management is affected by men's outmigration. It also offers indications of the impact of women's participation and decision-making in community forest management and the existing constraints and challenges they face.

Methodology

Site selection

The study was conducted in the Mid-hills, a mountain range that crosses Nepal from east to west, between the Himalayan range in the north and the Ganges River plain in the south. The altitude of the Mid-hills varies between 1.000 and 3.000 m. The Kavre district, some 70 km east of Kathmandu, was selected as livelihoods rely mostly on subsistence agriculture, livestock farming and forest resources (DDC 2007). Also, Kavre district borders Kathmandu and is well-connected to other major towns such as Dhulikhel and Banepa. Therefore, many men come to these cities either for study, work or business. In addition, Central Bureau of Statistics (CBS 2001) reports many of the men from Kavre districts go to other countries such as India, Malaysia and Saudi Arab for employment.

For this study, two CFUGs with a high rate of men's outmigration were selected. As official statistical data on migration is inadequate and often not available in Nepal, outmigration levels in Kavre district were assessed through discussions with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level) and NGOs. This provided a preliminary list of areas within Kavre with particularly high rates of men's outmigration. Six CFUGs were then visited to check the rate of men's outmigration and other characteristics of the CFUG through discussions with members of the Village Development Committee (a local administrative unit acting at village level), school teachers, as well as members of the CFUG and its executive committee. Finally, two CFUGs – Chande Majuwa and Katunje Pakha – were selected, as both had a high rate of men's outmigration and an active participation of women in the CFUG. Also, the two CFUGs are similar in other important aspects, such as access to markets, income from the CFUGs and exposure to tours and trainings.

Data collection and analysis

Primary data was collected between November 2007 and January 2008 through focus group discussions, individual interviews and participant observation.

Three focus group discussions were carried out with ten women in each CFUG. Each focus group discussion took about two hours. The main issues discussed were the factors that motivated women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in these CFUGs. The members of the focus groups were also asked to list the main influencing factors and to rank them.

Furthermore, informal discussions with male members of the CFUG were conducted to assess their perception of women's involvement in community forest management in both CFUGs. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the CFUGs.

Results and discussion

Factors influencing women's participation in the management of the community forest

Forest management in both CFUGs started about 25 years ago through a reforestation project (Nepal Australia Forestry Project), funded by Australia. Both community forests were formally handed over to the CFUG about 15 years ago. At that time, women's participation was predominantly passive. Male CFUG members held meetings and took decisions while women were barely – if at all – informed about the timing and/or outcome of these meetings. Women were unaware of the functioning of the CFUG and the potential benefits they could gain from the use of CFUG funds. However, in the last five years, women's awareness and stake in forest management has increased, so that it can now be described as active participation in decision-making.

As the main factors that allowed for this increased participation and active engagement in the decision-making within the CFUG, the women in the focus groups stated that collecting forest products is their responsibility, and that through their increased awareness of the importance of the CFUG and their confidence in their own abilities to manage the CFUG, they started to take a more active role in the management of their community forest (see Fig. 1).

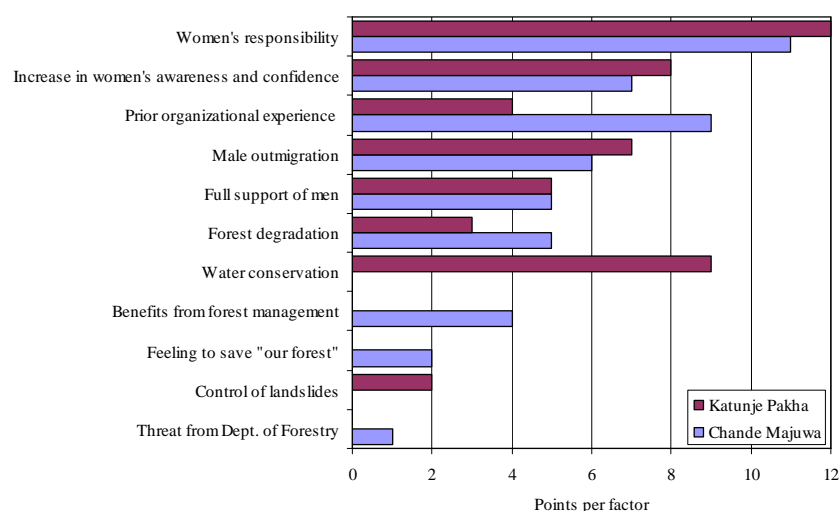


Figure 1: Weighed ranking of factors that motivated women to participate in community forest management

Note: Each of the 10 women participating in the focus group was given 5 points to distribute among the factors listed. Not all factors were listed in both CFUGs.

Forest and water are women's responsibility

Since in Nepal the collection of forest products such as fuelwood, fodder, grass and bedding material is mainly women's responsibility (Buchy and Subba 2003; Upadhyay 2005), women in both CFUGs started to face problems in meeting their household requirements as the state of the community forest degraded. Pressured to meet their household duties, women started to sneak into nearby community forests or national forest to collect forest products. However, these were farther away, so that the women had to spend more time to collect the forest products. Also, if the women were caught stealing the forest products from other CFUGs or national forest, they had to face penalties for misbehaviour and public shame. Securing a regular flow of forest products therefore became a core issue for the women, encouraging a more active participation in their own CFUG.

Women's increased awareness and confidence

The adult literacy programmes conducted by the Village Development Committee in both CFUGs provided a venue where women could sit together and learn in groups. This opportunity for information exchange made them more aware about the benefits they could potentially derive from forest management, such as planting medicinal plants in the forest to generate an income, or using CFUG funds generated from wood sales to address community problems.

Prior experience in organization

At the same time, women had the opportunity to get involved in some other organizations. In Chande Majuwa, women started a 'saving and credit scheme' where

each woman had to contribute 100 Nepalese Rupees (NRs.) per month. This allowed the women to set up a revolving fund which was used to solve the problems of member households in times of need. This experience provided women with the feeling that, if they organized themselves, they could solve their problems on their own, i.e. they did not always have to depend on their husbands or on another male household member. It strengthened the women's feeling of self-confidence and showed them the potential benefits they could derive from a successful organization. It also increased men's awareness and acceptance that women can successfully lead organizations. In the words of a woman in the focus group:

"Before, women in these villages were limited to performing assigned duties within their household only. But after being involved with the saving group, I also took on responsibilities of my household just like my husband. This has increased my self-esteem in my family as well as in society."

Focus group discussion, Chande Majuwa CFUG

Women in Katunje Pakha participated in a programme for children and women, initiated by the Katunje Village Development Committee, called DOCAW, which provided training to raise women's awareness of their legal rights. Participation in this training has enhanced women's knowledge and awareness of their rights and thus their self-confidence:

"Before, I did not know anything. Participation in DOCAW made me aware about my own rights as a woman. It has also increased my self-confidence and capability to voice my concerns in public meetings."

Focus group discussion, Katunje Pakha CFUG

The high rate of men's outmigration

The former Executive Committee of the Chande Majuwa CFUG was a men-only committee. When they made decisions about forest regulations, women tended not to receive any information about the timing of meetings or the decisions taken:

"Earlier we did not even hear about meetings. Men used to do that. They also did not use to share information. We didn't even know when the forest was opened and closed. We thought that it was only men who should held meetings and make decisions."

Focus group discussion, Chande Majuwa CFUG

In Katunje Pakha, women were formally included in the initial Executive Committee, but men monopolized the decision-making, so that the women ended up not participating in the meetings.

When the rate of men's outmigration increased, this led to a lack of guidance within the CFUG. Indeed, in Chande Majuwa most of the male members of the Executive Committee left for cities in search of better employment. Thus, the men were no longer present and able to provide the time required to solve the various problems in the community forest. As a result illegal tree felling and forest encroachment was rampant in

both CFUGs. In Katunje Pakha, forest degradation led to issues of water scarcity and landslides, which were a core concern of the women.

Full support of village men

Given their inability to cope with the rampant forest degradation, combined with an increased confidence in women's ability, men in both CFUGs finally encouraged women to come to the fore and take part in decision-making on protection, management and use of the community forest. In both CFUGs, women perceived that male members fully supported their engagement. Men thought that if women participated in decision making, introducing women's perspective and concern, the forest would be better cared for. Indeed, since it is mostly the women who go to forests to collect forest products, they tend to be the most knowledgeable (Agarwal 2000; Upadhyay 2005) about the forest condition, areas of illegal felling and even the illegal encroachers. In Chade Majuwa – combined with the outmigration of the male members of the Executive Committee – this led to the formation of an all-women Executive Committee, in Katunje Pakha the women's share was increased to 50% of the committee members (up from 10% about four years ago).

Family composition and remittances as mediating factors

A left-behind woman has to cope with new responsibilities in the absence of her husband. Such new responsibilities can lead to stronger exposure to the public sphere, as is the case with decision-making in the executive committee or the general assembly of a CFUG. This particularly applies to women living in a nuclear family without any adult son. In the absence of their husbands, these women started to attend public meetings and forest assemblies. This public exposure provided them with a new opportunity for learning and information sharing. With it, their interest in the management of the CFUG increased. This public exposure also provided them with enhanced negotiation skills and allowed them to voice their concerns related to forest management, thereby influencing decision-making.

However, in extended families, the responsibilities of the man who had outmigrated were taken up by another male member of the family, e.g. a father-in-law or brother-in-law. Thus, in both CFUGs, left-behind women who lived in extended families participated less in forest meetings and assemblies, compared to those living in nuclear families. These results are congruent with other studies that analyzed gender relations within households (Zachariah and Rajan 2001; Kaspar 2006).

All the left-behind women reported that their husband used to be a major source of information about issues in the public sphere, e.g. the time and location of CFUG meetings and decisions taken in assemblies. When their husbands left, they lost this prime source of information. Whereas women in joint families relied mostly on other family members (male or female) to obtain such information, women in nuclear families relied mostly on neighbours and relatives. However, if the left-behind women in nuclear

families were not satisfied with the information provided, they had a strong incentive to attend the next meetings themselves.

Existing literature indicates that left-behind women tend to have a high workload (Thelma et al. 2001; Gurung and Gurung 2002). In the focus groups, although the left-behind women reported that their workload had increased, it did not hamper their participation in community forest management. Indeed, the women noted that they were happy to attend forest meetings and general assemblies as such meetings provided them new avenues for learning, thereby supporting their self-development.

Another issue is the remittances that outmigrated men send home and the control over this new resource. In extended families, it is mostly the male member of the family who handles the remittances. Still, women's opinion on their use is heard, even if they often end up being used to purchase land or to build a house. In nuclear families, usually the left-behind woman shares decision making with her outmigrated husband and thus, has more influence on the use of remittances. Some families, both extended and nuclear, have invested a part of the remittances to purchase alternative sources of energy, e.g. gobar gas. In these cases, the remittances helped to reduce the women's dependency on forest resources, especially fuelwood.

Impact of women's engagement in community forest management

Women in both CFUGs perceived that their involvement in community forest management yielded many benefits. The forest is now better protected, and the forest condition has also improved in terms of forest regeneration. Women now have easier access to forest products such as fuelwood, fodder, grass and bedding material from their community forest. Women's active involvement in the CFUG has helped to draw attention to women's concerns and identify possible solutions to address them. Indeed, now that women take part in the meetings, they can voice their ideas and influence the decisions. Women are also better able to ensure that the funds generated in the CFUG are used to address their livelihood issues. Moreover, participation in the CFUG has exposed the women to public meetings and speaking in public. Successfully meeting this challenge has increased women's self-esteem and confidence.

Constraints and challenges to women's engagement

Despite women's active engagement in community forest management, women still feel hindrances owing to their level of education and knowledge about legal and financial aspect of community forest management. Most of the women in both CFUGs are illiterate or just literate. Therefore, women tend to develop a feeling that "they might do something wrong" if they undertake legal or financial management of CFUGs:

"In one of the Executive Committee meetings, male members of the Committee were suggesting that this CFUG should be converted into a women's-only Committee. They also asked my opinion

about it. I felt a bit troubled wondering how women could deal with financial matters of forest management on their own. Most of us are illiterate. How could we handle the required skills to maintain the minutes and financial records?”

A member of the executive committee of the Katunje Pakha CFUG

Though women fully acknowledged men’s support behind their participation in forest management, they also felt unsettled by men’s desire to use the CFUG funds according to men’s own interests. In Katunje Pakha, male members of the Executive Committee put the CFUG fund in a bank, despite female members’ preferences to set up a revolving fund to provide “easy loans” to needy families in the community. During the focus group discussion, women also mentioned so other conflicts regarding the use of CFUG funds:

“Once, a few men came to us and requested a grant from the CFUG fund to construct a road nearby. All the women signed to allow cutting trees from the community forest to raise about Rs. 35,000 for constructing the road. Later we came to know that only a small amount was used for road construction, the rest was used up by the men themselves. We felt cheated, but this event has made us more careful.”

Focus group discussion, Chande Majuwa CFUG

Conclusion

Community forestry in Nepal is one of the highly acclaimed participatory programmes that aim to encourage the participation of local people, mainly women, in forest management. Yet, women’s inclusion and active participation in decision-making remains as a challenge, and is often mere lip-service. However, the men’s outmigration, which is becoming a widespread phenomenon in the Mid-hills, could potentially mediate social changes. This exploratory study was conducted to assess and analyze under which conditions men’s outmigration could lead to women’s increased participation in the management of community forests.

As the cases of Chande Majuwa CFUG and Katunje Pakha CFUG indicate, men’s outmigration can indeed open a ‘window of opportunity’ for women. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. of a savings group – or participation in a women’s rights programme, increases the women’s confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men’s support, women are willing to take on new challenges and seize the opportunities that can arise from men’s outmigration. The extent to which left-behind women actually become actively engaged in community forestry management seems to depend to a large part on them being in a nuclear family and feeling that the information about the community forest they get from their social networks is not satisfactory.

Given the increasing rate of men's outmigration in the Mid-hills of Nepal, there is a tremendous scope to encourage women's participation in community forestry. To realise this potential, further research is needed to identify the factors that foster women's participation and their interrelations.

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Paper III

Outmigrating men: A window of opportunity for women's participation in community forestry?

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The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Outmigrating men: A window of opportunity for women's participation in community forestry?

Abstract

Encouraging women to become active participants has been an important goal of the community forestry programme in Nepal. Achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women. In this study, we explore if there is a relationship between men's outmigration and women's participation in community forestry. Data were collected using a semi-structured survey, in-depth interviews and focus group discussions with women from two community forest user groups. Our analysis indicates that men's outmigration provides a 'window of opportunity' to increase women's participation, as the left-behind wives were more likely to attend the general assembly and voice their opinions during the general assemblies. However, the extent to which outmigration represents an opportunity depends on family type and composition. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions.

Keywords: decision-making, left-behind women, migration, community forest user groups, Mid-hills, Nepal

Introduction

In a globalized world characterised by regions differing in their economic dynamics, migration is widespread. Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies in which men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. The wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions.

One such institution is community forestry which plays a key role in securing forest resources for the household, such as fodder, firewood and timber. As there are few forests women can access freely, these resources mostly come from a forest managed by a local user group-commonly called as 'community forest user group' (CFUG). Although women are considered responsible to collect forest products, traditionally it is the men who represent the household during the general assembly and other meetings of the CFUG. During these meetings and in the general assembly, decisions pertaining to the management of the community forest are taken following a deliberative process. To maintain their membership, each member household must have at least one person present.

Although the community forestry programme has made substantial efforts to be gender inclusive, women have so far played only a subordinate role (Agarwal 2001; Buchy and Subba 2003). Women's active participation in decision-making has been hampered by a range of factors, such as women's traditional deference to men, their lack of experience with voicing their views in a public setting (Shrestha 1999; Chhetri 2001), their lower education level (Lise 2000; Lama and Buchy 2000) or their lack of access to employment (Ghimire-Bastakoti and Bastakoti 2006).

In this paper, we explore whether men's outmigration can open a 'window of opportunity' for women to engage actively in decision making within their CFUG. Indeed, if the man, usually the head of household, is not present, and given that each member household is required to attend the general assembly, necessity might push women into the public sphere. As previous studies indicate, the extent to which women will engage in the public sphere is likely to be affected by factors such as wealth, position within the family, family type (Shrestha 1999; Buchy and Subba 2003) and migration pattern (Hadi 2001).

Methods

Selection of the study area

Ramechhap district, some 220 km east of Kathmandu, in the Mid-hills of Nepal, was selected for this study as a high share of men migrate, and as it has a reputed history of forest restoration through the community forestry programme (NSCFP 2004). Key informants from District Forest Offices, District Development Committees, range posts, and NGOs were asked to name CFUGs with high rates of outmigration. From this preliminary list of CFUGs, those that had received support from the Nepal Swiss Community Forestry Project were selected. This allowed building on established relations of trust, which was important to secure access to the CFUGs, especially as data collection took place during a politically fragile period (end of the Maoist insurgency, see Karki and Bhattarai 2004). This short-list was further restricted to those CFUGs which were very similar regarding their ethnic composition, forest area per

household, forest condition, access to road and markets, and overall economic situation. From the resulting list of six potential CFUGs, two were randomly selected: Majuwa Bhumithan and Dugursingh Hup. Including two CFUGs allowed for a larger sample size and gave the opportunity to include a wider variation in strategies to cope with men outmigration.

Data collection

Data was collected in three steps between October 2007 and February 2009. In a first step, to assess whether there is a relationship between men's outmigration and women's involvement in the CFUG, a questionnaire-based survey was administered. The households were first divided into two cohorts- (a) households with married migrant men and (b) households with married men at home. All households from both cohorts from each of CFUGs were surveyed, if they were reachable, willing to participate in the study and if they had at least a married couple (thus, households of widows, widowers, or divorcees were not included since they do not allow to study the dynamics of gender roles). A total of 186 households were surveyed, with the wife of the household head or of the migrating man answering the questions. The survey included questions on the participation in silvicultural activities, attendance at general assemblies, whether the women voiced their views at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. In a second step, to better understand how husband's outmigration affected their wives, 30 left-behind women were purposively selected to cover a range of education levels, household types and family composition. These women were interviewed using a semi-structured interview format that focused on their personal experiences in coping with their husband's outmigration. The interviews took approximately two hours each. In a third step, five group discussions were held: two with women living in a nuclear family, two with women living in a joint family and one with a combination of both. During the group discussions, the 40 women were encouraged to discuss their personal experiences as well as how they perceived men's outmigration to affect the community as a whole. Each discussion took about four hours. Both the semi-structured interviews and the group discussions were tape-recorded after receiving permission from the women.

Data analysis

The quantitative data collected in the survey was analysed using SPSS. First some descriptive statistics were calculated to characterise the surveyed households. To analyse the factors affecting the women's participation in the CFUG, two proxy variables were selected: (1) attendance at the general assembly, (2) whether the woman voiced her opinion on upcoming forest management decisions during the general assembly or during earlier preparatory meetings. Both proxy variables were ranked on a 3-point scale, ranging from 'never' to 'sometimes' and 'often'.

Regarding the factors that might affect women's participation, we first analyze differences between left-behind women and women whose husband is at home, using Chi-square tests. Secondly, we focus on the variables that can explain differences within left-behind women. To assess the statistical significance of the variables, we use Chi-square tests as well as an ordered logit regression. Ordered logit regression was selected as the 3-category dependant proxy variables are neither continuous nor normally distributed (Norušis 2008).

The qualitative data from the interviews and the group discussions was examined using content analysis (Berg 2009). The focus was on identifying those causal relationships, as perceived by the women, which explain the result of the statistical analysis of the survey data.

Results

Characteristics of the CFUGs

In both CFUGs, the dominant ethnic groups (Tamang and Magar) do not have a caste hierarchy and there is little difference in wealth between CFUG members. All rely heavily on forest resources, and fuelwood is their only energy source for cooking. Due to the poverty prevalent in these communities, outmigration is a widespread livelihood strategy. Of the 186 surveyed households, 16.1% of the interviewees' husbands migrate between 6 and 12 months per year, mostly to larger towns within Nepal, to work as wage labourers in carpet weaving, brick kilning or as taxi drivers. Some 32.8% of interviewee's husbands migrate for more than 12 months at a time, mostly to India or the Gulf states. The household types were distributed nearly equally: 44.6% of surveyed households are joint households, i.e. in-laws or siblings share the same household, where as 55.4% of surveyed households are nuclear, i.e. composed only of the husband and wife, as well as their children. The majority of the surveyed women (61.8%) were illiterate. However, 25.8% had attended formal schools and 12.4% had attended adult literacy classes. The average age of the surveyed women is 33.2 years. Nearly half (44%) of left-behind women are engaged in self-employment, mostly selling vegetables or alcohol.

Differences between left-behind women and women whose husband is at home

Although the vast majority of women are involved in collecting forest products, only half of the surveyed women (50.7%) stated that they attend general assemblies at least occasionally. Left-behind women are not only more likely to attend general assemblies; they are also more likely to attend them regularly (Table 1). Only a third of all surveyed women (32.8%) stated that they voiced their opinions before or during general

assemblies. Here also, left-behind women are more likely to express their views (19.8%) compared to women whose husband are at home (5.3%), a difference that is statistically significant (Table 1). These findings indicate that there are significant differences between the two groups of women (Table 1). Left-behind women are significantly more likely to be present at the general assemblies, where decisions regarding the management of the community forest are discussed and taken. They are also significantly more likely to raise their concerns and influence forest management decisions.

Both the in-depth interviews and the focus group discussions with left-behind women have confirmed that their behaviour in relation to attendance at the general assemblies and to voicing their views regarding forest decisions has changed after their husbands outmigrated. Left-behind women had to take up the roles and responsibilities of their husbands, both at the household and in community institutions. Left-behind women had little choice, given the importance of attending the general assembly to continue the membership at the CFUG and thus, maintain access to forest products.

Table 1: Differences between left-behind women (n=91) and women whose husband is at home (n=95)

Variable description	Answer categories	Left-behind women (% per category)	Women with husband at home (% per category)	X ² test (p values)
Attendance at the general assembly	Often	45.1	17.9	0.001**
	Sometimes	11.0	27.4	
	Never	44.0	54.7	
Voicing their opinion	Often	19.8	5.3	0.010*
	Sometimes	17.6	23.2	
	Never	62.6	71.6	
Involvement in forest product collection	Often	78.0	66.3	0.205
	Sometimes	15.4	23.2	
	Never	6.6	10.5	
Dependent on fuelwood from CFUG	Very much	53.8	52.7	0.231
	Somewhat	27.5	36.3	
	A little	18.7	11.0	
Family type	Nuclear	38.5	71.6	0.001**
	Extended	61.5	28.4	
Education level	Illiterate	47.3	75.8	0.001**
	Literate	52.7	24.2	
Mother-in-law in the household	Yes	57.1	21.1	0.001**
	No	42.9	78.9	
Adult men in the household	Elderly	25.3	4.2	0.001**
	Young	7.7	73.7	
	Both	20.9	22.1	
	None	46.1	0.0	
Adult son in the household	Yes	9.9	25.3	0.005**
	No	90.1	74.7	

**Significant at 1% level

*Significant at 5% level

Differences within left-behind women

The left-behind women are not a homogeneous group, however. Especially the household type has a significant influence on whether the women attend the general assembly and voice their opinions (Table 2). If the left-behind women live in a joint household, she is less likely to attend the general assembly than if she lives in a nuclear household (32.2% vs. 84.3%). As expressed during focus group discussions, in joint households, it is likely that some other family member, such as a father-in-law, a brother-in-law or an adult son, will take up the outmigrated husband's role and responsibilities. Indeed, the presence of adult men in the household is significantly associated with the left-behind's women attendance of the general assembly (Table 2). The type of adult man (such as father-in-law or son) present at home can again lead to variation. About 25% women with elderly adult men at home do attend the general assembly, compared to 83% of women with young adult men such as a son. However, not only do other men take over the roles of the outmigrated husband, they can also be taken over by senior women, such as the mother-in-law (Table 2).

If the left-behind woman lives in a nuclear household, she is very likely to take up the role of her migrating husband. Having an adult son does not influence her attendance at the general assembly (Table 2). During the focus group discussions, this was explained by the fact that adult sons tend to reside in a different town for educational purposes and thus, are not able to take over the roles and responsibilities of their father.

Surprisingly the migration pattern does not have a significant influence on left-behind women's attendance at general assemblies (Table 2). The in-depth interviews revealed that this is linked to husband's individual preferences. In some households, husbands encourage their wife to attend the general assembly even if he is back at home, as he does not feel sufficiently informed to represent their household at the general assembly. However, other husbands prefer to attend the general assembly themselves whenever they are at home.

Left-behind women who are self-employed are significantly more likely to express their opinions regarding forest decisions (Table 2). However, there is no significant relationship with the attendance at general assembly. The focus group discussions revealed that women who are self-employed have experience with being exposed to the public sphere and gained confidence in voicing their opinion. However, due to their work commitment, they are not always able to attend the general assemblies.

Whether the left-behind women are literate or not has no significant influence on them attending the general assembly or voicing their opinions. This indicates that although illiterate women might not be able to read the written documents of the CFUG, it does not influence their commitment to attending the general assembly and voicing their opinions.

Table 2: Variables influencing left-behind women's attendance at general assemblies and voicing their opinions at or before general assemblies (n=91)

Variables	Description of variables	Attendance at general assemblies		Voicing her opinion	
		χ^2	p-value	χ^2	p-value
Household type	nuclear / joint	44.267	0.000**	10.503	0.005**
Adult men in the household	yes / no	33.069	0.000**	10.633	0.005**
Type of adult men	elderly / son	14.639	0.001**	2.609	0.271
Presence of mother-in-law	yes / no	39.042	0.000**	6.611	0.037*
Adult son in nuclear family	yes / no	1.347	0.510	0.809	0.667
Migration pattern	6-12 months / > 12 month	1.162	0.559	3.810	0.149
Education level	Illiterate / literate	4.133	0.124	0.216	0.898
Self-employment	yes / no	4.648	0.098	10.364	0.006**

Degree of freedom: 2

**Significant at 1% level

*Significant at 5% level

Regression analysis

The three-ordered regression analysis allows to identify significant independent variables that influence left-behind women's attendance at general assemblies and voicing their opinions about forest decisions. The regression analysis also estimates the direction of such relationship based on the sign (+ or -) of regression coefficients. The log likelihood test also showed that the regression models fit the data and they have good explanatory power. Since the presence of an adult man or of a mother-in-law is tightly related to the household type, they are excluded from regression analysis. The presence of an adult son in a nuclear family is also eliminated, as we do not have a large-enough sample to be able to include it in an ordered regression.

Both household type and self-employment are significantly and positively related to left-behind women's attendance (Table 3) and expressing their opinions regarding upcoming forest decisions (Table 4). Education and migration pattern were not significantly related to left-behind women's attendance and influence in forest decisions.

Table 3: Ordered logistic regression predicting left-behind women's attendance at general assemblies

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	3.775	0.687	0.001**	3.597
Education level (1=illiterate)	-0.214	0.553	0.699	0.807
Self-employment (1=yes)	1.031	0.519	0.047*	2.803
Migration pattern (1= < 12 months)	0.342	0.534	0.522	1.407

LR χ^2 (4 d.f.) = 54.657, Prob > χ^2 = 0.001 Log pseudo likelihood = -102.506

**Significant at 1% level *Significant at 5% level

Table 4: Ordered logistic regression predicting left-behind women voicing their views of upcoming forest decisions

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	1.478	0.501	0.003**	4.384
Education level (1= Illiterate)	-0.574	0.498	0.249	0.563
Self-employment (1=yes)	1.263	0.469	0.007**	3.536
Migration pattern (1= < 12 months)	-0.612	0.524	0.243	0.542

χ^2 (4 d.f.)= 22.509, Prob > χ^2 = 0.001 Log pseudo likelihood = -84.557 **Significant at 1% level

The regression analysis also shows that, when holding other variables constant, the odds for a left-behind wife living in a nuclear family to attend general assemblies is 43 times higher than the odds of left-behind women living in a joint family (Tab. 3). The odds of a left-behind woman living in nuclear family voicing her opinion is four times higher than the odds of a woman living in a joint family (Tab. 4). The odds of women who are left-behind and self-employed to attend general assemblies are nearly three times higher than those who are not self-employed (Tab. 3).

Discussion

Women's participation in the management of a community forest is influenced by a number of individual and social factors (Lise 2000; Agarwal 2001; Lama and Buchy 2002; Adhikari et al. 2004). This study analysed the extent to which men's absence due to migration, can open a window of opportunity for women to become more involved in the decision-making of the CFUG.

The findings indicate that women whose husband outmigrate are significantly more likely to attend general assemblies than women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring social roles and responsibilities both within households and within community institutions (Zacharia and Rajan 2001; Karki and Bhattarai 2004).

However, the household type (extended or nuclear) and composition (presence of adult men or older women) are important factors modifying the impact of outmigration on the left-behind women. Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. Women living in nuclear families, especially when they did not have another adult in the household, were the most likely to become actively involved in the decision-making of the CFUG. Earlier studies (Hadi 2001; Kaspar 2006) also indicate the role of household type. Being self-employed also had a significant impact on the women voicing their opinions.

These results need to be understood in the context of the CFUGs studied: they are characterised by low income levels and high dependence on the CFUG especially for fuelwood. Retaining the membership of the CFUG by attending the general assemblies was thus a high priority for the women. As both CFUGs are characterised by a high share of men leaving the community to search for employment (over 50% outmigration rate), the community might display a higher level of understanding that adjustments need to be made and thus, might be more willing to accept untraditional behaviour by left-behind women. This acceptance might be reinforced by the pressure by the Department of Forest to include women in the management of the CFUG. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling left-behind women to engage in the public sphere.

This study does not allow assessing to which extent left-behind women's attendance at the general assembly is the beginning of a wider engagement of women in the CFUG or in the public sphere generally. Some studies on the effect of outmigration in Nepal have indicated that, after their return, men tend to reclaim their pre-migration roles and decision-making competencies (Miller 1990 in Kaspar 2006; Kaspar 2006). However, other studies indicate that outmigration can permanently alter traditional mores and culture, so that women can have more freedom and decision-making powers, even after their husband returned home (Hadi 2001).

Conclusion

The study shows that under certain conditions a high rate of outmigrating men in search of work can open a window of opportunity for women to participate actively in the management of community forests. Whereas women have traditionally participated in the silvicultural activities of the CFUG, their presence and active involvement in decision making is very recent. Given the aim of Nepal's forest policy, to institutionalize gender equity and promote democracy through the community forestry programme, supportive measures should be provided to sustain women's entrance in the public sphere. Such a policy support, can add to the progressive redefinition of social structures and norms, even after the husband returns home.

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Paper IV

Nepali women using community forestry as a platform of social change

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Nepali women using community forestry as a platform for social change

Abstract

Successful implementation of decentralized programmes such as community forestry depends on participation of local users. Although women have been recognized as the primary users of forests, they are widely reported as marginalized in decision-making processes. Previous studies mostly take a static view, focusing on exclusionary structures to explain how and why women are marginalized. A focus on social change processes would allow better understanding of whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. Based on survey, interviews and group discussions in two community forest user groups, we argue that women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. We point out the need to understand participation as an on-going and open-ended process of social change rather than as a predefined outcome.

Keywords: management of natural resources, gender, participation, perception, decision-making, Nepal

Introduction

Nepal initiated its community forestry programme in the late 1980s with the twin goal of conserving natural resources and providing local users with forest products. Community forestry is widely recognized as a promising approach to forest management and governance, especially regarding its ability to improve the condition of forests (Banjade and Ojha 2005; Gautam and Shivakoti 2005; Koirala et al. 2008; Thoms 2008). Currently Nepal has some 14,400 community forest user groups (CFUG) involving over 1.6 million households (DoF, 2007). By devolving management rights to local user groups, the programme also aims at contributing to social equity by securing resources for disadvantaged groups, such as the poor, low caste and women (Acharya 2002; Adhikary 2002). Indeed, in rural Nepal, forests are a key natural resource that provides leaf litter, firewood, fodder, grazing resources as well as timber. Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups.

These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active

participation in the decision-making mechanisms within the CFUG (Agarwal 2001a; Agarwal 2001b; Lama and Buchy 2002). This recognition was followed by policy initiatives to increase women's inclusion in the decision making bodies of the community forestry: the Ninth Five-year National Development Plan 1997-2002(NPC 1997) provides directives for the inclusion of women in the executive committee of the CFUG; the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) requires that for each household one man and one woman must be included in the list of members. Although these gender-friendly policies have done much to increase the formal inclusion of women in the decision making bodies, studies point out that women still tend to be excluded from active participation in decision-making (Buchy and Subba 2003; Gupte 2004).

The questions thus remain whether exclusion and inequality are maintained over time, and what processes can induce change. Understanding processes of change is crucial to identify approaches that could lead to equity in decision-making and transformative participation by women and other disadvantaged groups. Previous studies have mostly emphasized the need for different structures to induce change (Lama and Buchy 2002; Gupte 2004; Thoms 2008). These approaches tend to depict women as powerless victims, as passive receivers of development and thus as dependent on external interventions. Although we agree that structural change and external interventions are important leverage, they are not sufficient to induce social change. We want to draw attention to the women's agency, to their active engagement with the space offered by these structural changes. Building on Nightingale's (2006) understanding of gender as process, as being recreated and changed in daily interactions, we focus on how the women can use the CFUG as a platform to contest and reconstruct their roles and rights.

The paper starts with a brief overview of the theoretical background on understanding change through creative acts in daily social encounters, before presenting the results of a case study of two CFUG. Based on a survey, interviews and group discussions, we present women's perceptions of decision making processes within the executive committee and the general assembly of their CFUG. We analyze how the women use current structures to widen their room to manoeuvre by contesting the traditional right of the men to be sole decision-makers. We show that although such acts might not always yield results that can be easily measured by development planners or evaluation analysts; they are part of a process of adjustment and adaptation over time. Our aim is thus to understand processes of social change, rather than limiting ourselves to measure participation outcomes.

Understanding women's agency in community forestry

Many studies assessing the participation of women in community forestry, specifically their ability to influence decisions, take an institutionalist approach. They assume that outcomes of collective action are determined by the institution's design principles (Ostrom 1990; Agrawal, 2001) and that the effects are largely governed by underlying social norms, which tend to be seen as stable (Lama and Buchy 2002; Gupte 2004; Ojha et al. 2009). They thus draw attention to various barriers to women's participation and identify a range of strategies that can induce change by external action and novel structures. These include revising legal provisions, setting adequate meeting times, organizing neighbourhood meetings, creating women-only groups, improving literacy, providing self-confidence training, and reducing women's work burden (Armitage and Hyma 1997; Agarwal 2000; Lama and Buchy 2002).

The identified barriers are certainly real and the strategies valid to increase women's participation in Community Forestry. However, these studies have paid little attention to endogenous processes of change, especially social processes involving continuous negotiation and change (Axelby 2007; Shortall 2008). Theories of social constructivism point out that interaction are based on the way agents socially construct their everyday realities (Steins and Edwards 1999). Processes within the CFUG are thus constructed (and reconstructed) by the people themselves. An explicit focus on the women's constructions, on their perception of processes within the CFUG can thus shed light on the complexities involved in the evolution of collective action and help us understand its dynamic nature. Indeed, communities and individuals are dynamic in that they are driven by an evolving set of beliefs and values. As experiences are processed, beliefs about the way the world functions, and the appropriate standards of human behavior for dealing with it, are continually adjusted (Fussel 1996). As social reality evolves, new feasibilities open up, allowing breaking through previous limitations.

We build on Dalton (2004) in viewing individual agency, and the creative acts of these agents, as a microsocial source of structural and social change. Dalton (2004) defines creativity as the necessary adaptation of habitual practices to specific contexts. He points out that all acts are creative in that they require the innovative adjustment to particular circumstances that can neither be neither precisely foreseen nor completely routinized. Creative acts by women in the CFUG thus continually introduce novel possibilities, establishing new rights, and new behavioural norms.

Obviously, how a novel possibility plays out depends on the social judgments and responses it provokes. Other groups or individuals may use innovative acts for their own interests, may decide to adopt or to modify creative acts for other circumstances, may condemn them as subversive or dangerous for social stability, or may engage in a variety of contradictory responses that reveal ambivalence linked to conflicting social

pressures or positions (Dalton, 2004). We thus understand women as creative agents, who continually produce practical innovations in interaction with a social and physical environment that systematically limits, judges, and incorporates those creative acts into the ongoing stream of social life.

Social life tends to be structured by gendered social norms that exclude women from participating in decision making processes in a CFUG. In Nepal, women were traditionally confined to the private sphere, whereas men dominated the public arena and were in charge of taking decisions that affected the community. However, as with other social norms, gender division of labor, gender rights, and gender duties are prone to change, not least through the creative acts of women. Gender roles and rights within a CFUG are not pre-determined or immutable; they are constantly being renegotiated, contested, and reaffirmed through social interaction. Once gender is re-conceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. The women may use the public platform offered by the CFUG to redefine what is considered an acceptable behavior for women. They might use it to acquire skills that they so far had no opportunity to experiment with and thereby enlarge their room for manoeuvre. In a series of subtle changes, women might thus be able to increase their influence in the decisions governing the management of the community forest.

Study sites and data collection

This paper draws on data from two CFUG located in Ramechhap district, some 220 km east of Nepal's capital city, Kathmandu. Ramechhap was selected as it has a long history of forest restoration through community forestry programmes (NSCFP 2004). Based on expert assessment, six CFUG with a high level of women participation, good access to markets, good forest condition and similar ethnic composition were short-listed. The dominant ethnic groups are the Tamang and the Magar, who do not have a caste-based hierarchy. As field work took place during the civil war (Sharma 2006) the CFUG were selected in cooperation with the Nepal-Swiss Community Forestry Project, to gain good cooperation and environment of trust while collecting data. From the list of six potential CFUG, two – Majuwa Bhumithan (Majuwa) and Dugursingh Hup (Dugur) – were randomly selected as case studies. Selecting two sites ensured adequate sample size and some variation in the practices of the executive committee and general assembly. Both CFUG were established around 1998 and the forests are predominantly pine plantations (NSCFP 2004).

Data were collected during two periods: from October 2007 to April 2008 and from December 2008 to January 2009. First, preliminary interviews were held with members of the executive committee (men and women) in both CFUG (4 in Majuwa, 5 in Dugur). Secondly, a snow-balled sample of households to survey was drawn from the membership lists. The semi-structured interviews in the survey were conducted face-to-

face with 120 women in Majuwa (57% of the households), and 66 in Dugur (67% of the households). The interviews were conducted with the wife of the household head. The survey included questions regarding the respondent's understanding of the operational plan, the rights and responsibilities of the users, and the household's involvement in community forest activities. She was also asked about her attendance at meetings, whether she speaks up to voice her opinions, and whether she was consulted before decisions were taken. Thirdly, in-depth interviews were held with 30 women. These provided insights in the women's experiences and their understanding of the processes within the CFUG. Finally, five group discussions were held, in which a total of 40 women participated. These women were purposively identified from the surveyed sample to include women of different age, education level and family structure. Topics covered in the group discussions included women's perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and how the women tackle these challenges. The in-depth interviews and group discussions were held by the first author in Nepali, transcribed, translated into English and analyzed using content analysis (Berg, 2009).

The women's perception of their CFUG

Perception of community forestry organization and of users' rights

All the interviewed women had a positive attitude towards their community forest user group, which is instrumental to overall performance of community based programmes (Matta and Alavalapati 2006; Allendorf et al. 2007). Since its establishment, they have access to forest products, which are protected since compliance to management rules is enforced. All women are actively engaged in silvicultural operations such as thinning or pruning, and regularly collect forest products.

Despite their involvement, few are aware of the documents which describe the formal organization of their CFUG (see Fig.1). Most of the respondents have never heard of the forest constitution. This document stipulates the rights and duties of the executive committee and of the CFUG members, as well as lists the names of members. Even fewer know about the Operational Plan, which includes the forest management plan, the harvesting regulations and the price of forest products. These are the two key documents of a CFUG. At the initial handing-over of the forest (i.e. when the boundaries of the forest were drawn, and its management (but not ownership) was handed over from the District Forest Office to the user group), they were written by the executive committee in consultation with a local NGO, and approved by the District Forest Office.

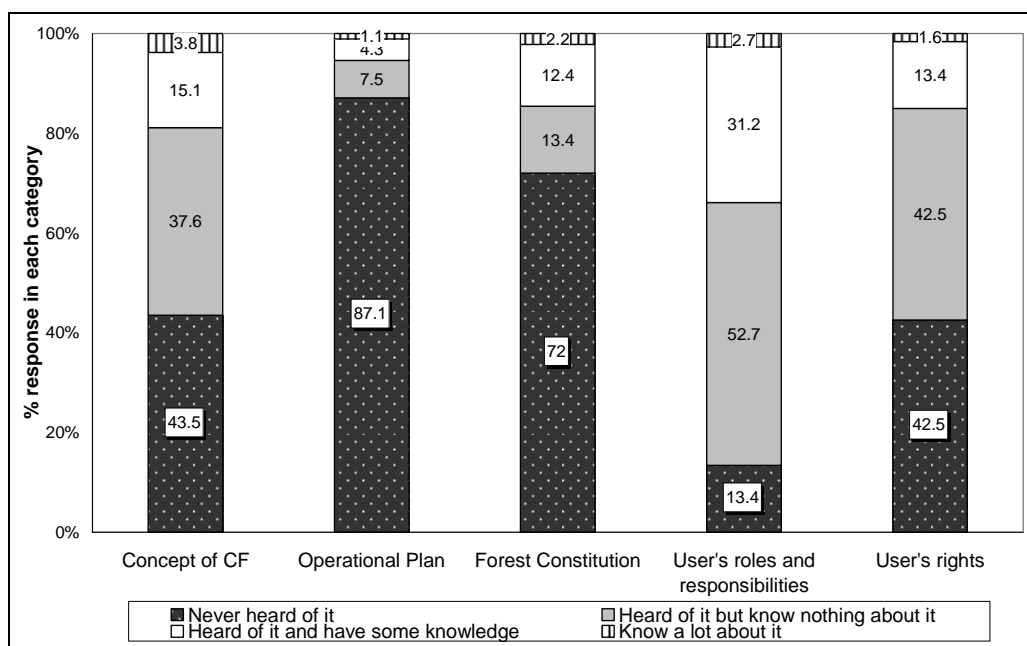


Figure 1: Respondents' knowledge of the formal documents as well as roles and rights in the user group

(Source: own survey, based on answers by 186 women)

The lack of knowledge about the regulations in the forest constitution can foster misunderstandings. For example, the member list in the forest constitution of both CFUG comprises a man's and a woman's name for each household, a fact that only 4.3% of respondents are aware of. More than 95% of respondents stated that only one person from their household has his name listed in the forest constitution. This person is assumed to be the head of the household: 51% stated that it is their husband, 24% their father in-law. This assumption is linked to the traditional deference to the male head of household, characteristic of a patriarchal society such as Nepal. The constitution states that "at least one member of each household should attend the general assembly", a fact that few women are aware of:

Only one person per household is called to the assemblies. So my husband, the head of the household, participated from my household. If two persons, both men and women have to attend general assemblies, I will start attending. [CT, Majuwa]

The poor flow of information thus leads to misunderstandings and erroneous perceptions about crucial issues such as the right to attend general assemblies or the ability to propose changes to the constitution. Indeed, although the constitution is updated every 3-5 years to adjust the provisions to the needs of the community, women perceive them as having a "legal" status and thus as "hard to influence and make changes" (BM, Dugur), rather than largely based on choices by the CFUG members. The fact that such misunderstandings are not cleared by the executive committee indicates that they use the knowledge about these key documents to symbolically distinguish between those who take decisions and those who actively work in the forest.

Perception of the executive committee and its decision-making process

To assess the perceptions regarding the central decision-making body, i.e. the executive committee, respondents were asked how committee members were selected. Surprisingly, about 40% of respondents do not know how the members of the executive committee are selected. A further 16% are unsure and provided a vague answer such as “it is a society’s decision, we all nominate”. Finally, 44% of respondents stated that the members are selected according to their abilities, where literacy plays a key role (see Table 1).

Table 1. Women’s statement regarding the attributes required to become a member of the executive committee (multiple responses were admissible)

Attribute	Description of the attribute by the respondents	Percent of respondents mentioning the attribute
Literacy skills	Educated, ability to read and write, ability to keep accounts	79
Rhetoric skills	Natural communicator, vocal, authoritative, ability to persuade or convince others, knows how to speak in public	55
Knowledgeable	Aware, clever, one who knows more	52
Personal skills	Skills for facilitation, discussions in public meeting, highly capable to take new initiatives	45
Committed to work	Active in social and community activities, trustworthy	45
Broad networks	Who has access and contacts at different places	27
Local elites	A combination of all or many of the attributes listed above many a times coupled with comparatively better economic position than the other households in a village.	21

(Source: own survey, answers by 82 women)

In both CFUG, women perceive that these key attributes are mostly found in men. Indeed, men are more likely to be literate, and tend to have more experience with public deliberations, given their traditional role as the household’s voice in the public sphere. Men are also seen as “more knowledgeable” regarding matters that affect the whole community. As men are more likely to have attended formal schooling, they tend to claim control over the committee, not least based on their literacy skills (Lachapelle et al. 2004; Behera and Engel 2005). Women thus tend to feel inadequate to become members of the executive committee, and feel that they cannot contribute to the decision-making process:

I am uneducated. The secretary and treasurer [both men] are educated and they take care of everything and inform me. I say "ok" to their decisions.
[Woman president of the executive committee, Dugur]

This perception of women being unqualified is widely voiced by respondents during interviews and group discussions. This is significant given that in Dugur 6 of the 12 members of the executive committee are women, while in Majuwa 3 of the 9 members are women. Although women are in effect members of the executive committee due to legal requirements and to ensure good relations with the District Forest Office, this has not yet been fully integrated socially or understood as an asset. Such inconsistencies between perceptions and reality are a sign of transition, of a renegotiation of which practices are deemed desirable. Indeed, practices and social relations are not mechanically reproduced but mediated by experiences and their interpretation. Both men and women might be ambivalent when faced with women in the executive committee, unsure of what to make of this new situation, what meaning it has and how it will be used by various groups. The situation is thus contested, being seen by some as an opportunity to experiment, while it is opposed by others. In the following quote, this ambivalence is implicit, in that the woman has not (yet) resigned, despite her husband's disapproval:

I was appointed for general member post. When I told my husband that now I am an executive member of our CFUG, he asked, "Why do you have to be a member? Now, who will do the household work?" Every time I attend meetings, he gets angry with me. I am going to resign. [Woman member of the executive committee, Majuwa]

Thus, although ensuring representation of women in the Executive Committee can provide them with a platform to voice their views (Tinker 2004; Upadhyay 2005; Vissandjee 2005), in Majuwa and Dugur it has not allowed women to effectively influence decision making (yet). This might make fulfilling quotas lead to little more than tokenism. However, such a summary assessment may overlook more subtle processes that are on-going and whose outcome is open. Indeed, the information and experiences women have as members of the executive committee are likely to open up new possibilities for the way they see and react to the world around them (Fussel 1996; Mohanty 2002 cited in Cornwall 2003:1329). This is not only the case for the women, but also for the men in the executive committee and the community at large, all of whom are experimenting with this new arrangement. This opportunity for learning and experimenting with leadership is recognized by women:

Women who are in executive committee also benefit. These women learn how to speak and act. Many of them have in fact increased their verbal skills of communication and gained confidence. They can now say 'two things' about community forestry and convince others about forest protection and management. [MT, Majuwa]

Including women as members of the executive committee is thus likely to affect not only management decisions (Agarwal 2009), but, over time, also induce shifts in values and beliefs. Indeed, despite the symbolic way in which only literate people are considered legitimate to take decisions in the Executive Committee (see also Nightingale 2005), illiterate women, through their daily interactions with the other members of the Executive Committee learn “how to speak and act”. This apprenticeship enlarges their repertoire of social interaction modes, thereby redefining their potential roles in the community.

Perception of the general assembly

The General Assembly is gathered once or twice a year by the executive committee to discuss and decide about forest management measures, to amend or revise the Forest Operational Plan and possibly to elect new members to the executive committee. It thus can be an important platform for discussion, negotiation and contestation regarding proposed measures and impending changes. Although the general assembly tends to be captured by a few members of the executive committee in terms of setting agendas, generally discussions are deliberative, communicative and responsive to members (Pokharel and Ojha 2005).

Of the interviewed women, 43% usually attended the general assemblies. This is significant since the women are not aware that it is their right to attend the general assembly since their name is included in the membership list. Instead, they have claimed and established their right by attending. This is a creative act (Dalton, 2004) by these women: they adapted their habitual practices as they perceived it as necessary. Over time men have tacitly acknowledged their right to be in this public space. Thus, through their acts, the women have renegotiated what is considered as acceptable behavior:

Things are much better now, more women go to the general assembly. Husbands do not argue much now if women go to meetings. The community has also started to value women in some ways. [DT, Majuwa]

Whereas attendance at the general assemblies is increasingly becoming the norm, it does not necessarily translate into active participation in the debates. Most of the women (65%) said that they prefer to “just sit and listen”. However, the passive behavior of some of the women should not imply that they feel that they have no right to speak up. The vast majority of interviewed women (88%) do not see it as inappropriate for women to speak up during meetings. Still, they admitted that it requires a lot of courage, communication skills and an encouraging environment to express opinions in a formal, public forum.

However, here too, a snap-shot approach to assessing the currently dominant behaviors should not hide the fact that there is an underlying process of experimentation. There is a significant minority of women (35%) who speak up during meetings and dare to ask questions. These women are engaged in creative action, in renegotiating social norms.

Through their behavior they not only improve their own skills, but may induce shifts in the behavior of others and the norm of what is expected of women:

It has not been long that women started to attend the General Assemblies. Earlier, there were very few women. Nowadays, the society anticipates that women come and attend the General Assemblies. This is a big improvement. Things have slowly changed but they have changed on a positive note. I am sure in coming days, women will gain more confidence and will not feel shy to talk what is going on in their minds. But this will take time. [PT, Dugur]

The women generally might still refrain from voicing their views, for a variety of reasons e.g. deference to those who 'know', to safeguard social cohesion, due to time constraints set by their household duties or because they do not expect to be listened to. Still, some women are experimenting with various ways to make their views heard during the general assembly. In this process they gain insights regarding both argumentation and successful behaviors, not least by observing the men and women who successfully object to a proposition by the executive committee and learn to be assertive:

Normally, people do not listen carefully when a woman speaks in the general assembly. Even sometimes, people pretend that they listen to women, but they do not include women's issues into final decisions. If a woman has to get herself heard, she has to act very, very assertively. [BT, Dugur]

Indeed, over a third (35%) of respondents stated that they exert "some" influence, especially in decisions regarding the duration and timing of forest closure, measures to protect the forest and rules about the distribution of forest products. Agarwal (2001a) has termed it "activity specific" participation. These decisions affect the women's abilities to satisfy the needs of their households and they feel self-confident about their right to ensure that their needs are met, e.g. by ensuring the protection of the forest against intruders:

Women will protest to the executive committee if forest protection is questioned. If there were some illegal entry to forest, and if the executive committee did not pay proper attention to such thefts, then they knew that women will raise issues against that. [LT, Majuwa]

The fact that there are certain areas where women are influencing decisions can be seen as indicating the start of a process that might come to include a wider range of issues over time. But this process is open, and there is no certainty that women's participation might not be limited to areas related to their domestic responsibilities (Agarwal 2001a). The women themselves see room for improvement, as only 43% were "completely satisfied" with their current level of influence on decisions. Thus more than half of respondents are unsatisfied either with their ability to influence decisions generally, or with the types of decisions they can influence. Implicit in their assessment is the expectation that they 'should' be able to have more influence, thus questioning the traditional norms that leave such decisions on community matters entirely to men.

Women expressing their views through direct consultation

If women hesitate to take the initiative and voice their views in a public setting, it might help if a member of the executive committee asks them directly or personally. Such a consultation might be undertaken either during the general assembly or before. In the survey, women were thus asked if they had been consulted and asked to express their views. The majority of respondents (56%) said that they had never been consulted. Of those who were consulted, about a third (28%) did not voice their ideas. However, nearly two-thirds (72%) said that if consulted, they do voice their ideas and concerns.

The acceptance that women (sometimes) should be consulted before decisions are taken is in itself an important step. However, there is still the understanding that women need to be consulted on certain topics only, such as times of forest closures or measures to protect the forest. This means that women's views are rarely asked for on issues such as time and date of a general assembly, use of forest funds or the choice of species to be planted (see also Paudel 1999)

But women do not necessarily wait to be asked. Indeed, if they do not approve of a decision, nearly 23% of respondents will personally ask questions to a member of the Executive Committee during the General Assembly. As the following quote shows, there are instances where women do voice their views and directly address the executive committee, requesting a change in a decision that had already been taken:

Last year, the executive committee decided to open the forest during Dashain [one of the most important festivals in Nepal]. I did not like the timings. This is a festival time, I have to clean my house, entertain my guests and cook different kind of food in addition to my daily routine of work. I am sure I do not have much time to go to forest and collect the forest products. I told that I did not like it and asked the executive committee that the timing should be changed. We need time to celebrate Dashain. Later, the executive committee decided to open the forest a week before Dashain. [ST, Majuwa]

In this example the woman's resistance was based on her domestic duties, and changing the date to allow women the time to prepare for the festival benefited both men and women. Nonetheless, it is an example of a woman speaking up in a public space and self-consciously arguing her position. Given that the decision was later changed to accommodate her concerns, it will give her a feeling of self-efficacy. Such seemingly small incidents open options that until recently were unthought-of: a woman voicing her views in public and changing a decision, no matter how small. As the process was tacitly sanctioned by the executive committee and community at large, it is conceivable that women might be emboldened to raise their voice on other matters too. Thus, both the fact that the woman was willing to protest in a public space, and the fact that the executive committee accepted her protest as legitimate, in effect giving her a say in the decision, are significant (see also Nightingale 2006). According to local cultural norms, this was not an acceptable behavior by the woman or the men. Women were expected to obey their husbands, father-in-law and other decision makers, who in

return were expected to listen to women's views or preferences. Yet the woman did protest the decision in direct and public opposition to the executive committee. Such an incident shows how gender norms are contested as the women redefine in what spaces and contexts they can voice their views. It is also an example how the women can use community forestry as a platform to contest gender roles: using the legitimate reason of an upcoming festival with its domestic workload, the women questioned the wisdom of the executive committee's decision.

Conclusion: Community forestry as a supportive frame for processes of social change

The results of the survey confirm previous reports that women's participation in the CFUG seem to be mostly tokenism, i.e. that they are often co-opted as members of the executive committee. However, the women's perceptions as voiced in the interviews and group discussions, point towards the need for a more nuanced analysis to understand the underlying dynamics. This type of analysis requires a complementary mix of methods. Especially the in-depth interviews and the group discussions allow shedding light on subtle processes that are missed by indicators such as the number of women in the executive committee or the share of women attending the general assembly. The interviews and discussions showed that women's perception tend to be process-oriented rather than a snap-shot assessment of a situation at one point in time. Thus, if the goal is to understand progress in women's involvement in community forestry, it would be helpful to ensure that evaluations include participatory methods. These will provide the information needed to adequately interpret quantitative data, since the same figure can be the result of very different processes.

The women involved in this study do not see themselves as passive casualties of male domination. Some of them take the opportunities offered by the CFUG structures and actively shape their social world by renegotiating their rights. Evidence of the processes of change can be found in incidents that might seem minor, but through such subtle shifts, some women experiment with alternative behaviors, contest traditional norms and increasingly assert their rights. As a result women's attendance at the general assembly has become an expected behavior, and voicing her views in a public forum is no longer seen as an indecent activity for a woman. Using a public forum to demand that a decision made by the executive committee be changed might still be rare. But it is an achievement in a society where, traditionally, people of authority are not questioned. Some women are challenging decisions, experimenting with voicing their views in public, thus gradually building their self-confidence and their feeling of self-efficacy, even if they encounter occasional setbacks. This process might be slower than development agents or policy makers would wish, but that does not make the progress less significant for the women struggling with the complexities of real life.

Externally-induced changes in structure such as quotas for women in the executive committee are important supportive measures to create an institutionalized space for women's participation. Women, as well as other marginalized groups (Nightingale 2005), can then use this space to experiment with new behaviors. Such experiments can add up, and in time induce shifts in what is perceived as acceptable or desirable by both men and women. It thus seems simplistic to expect a change in the behavior of women as soon as structural changes are implemented. The fact that all the women do not immediately assert their right to equal participation should not hide the fact that the information women receive and the experiences they make as members of the executive committee can lead to a revised understanding, opening up new possibilities for the way women see and act (Fussel 1996). These are indicative of how microsocial change processes are initiated and sustained by creative acts taking place in daily encounters (Dalton 2004), e.g. during meetings of the executive committee. These results mirror Nightingale's (2006), which show that gender is a process: subjectivities are produced and shift over time. Gender is not constant but is transformed during daily interactions of people and the CFUG provides a valued forum for such interactions.

Thus achieving a truly community-based natural resource management is generally a slow and continually evolving process (Flint et al. 2008). It may be a question of the glass being half-full, and we do not mean to be unduly optimistic. This renegotiation of meanings and possibilities are contested and progress is not expected to be smooth, setbacks are bound to happen. Furthermore, the outcomes of these social processes are not determined a-priori, and it is not inevitable for disadvantaged groups to climb the "ladder of participation" (Agarwal 2001a).

However, we see the CFUG as a crucial platform for this negotiation process, a process which needs a forum of public deliberation, where the traditional social order can be contested. The CFUG is such a public forum. The external pressure to be inclusive limits the possibilities to exclude disadvantaged groups. The CFUG is also focused on a natural resource that is essential for the livelihoods of all in the community. The stakes are thus high, increasing the likelihood of engagement and the need to find ways to accommodate differences, to resolve disputes and to find creative approaches to conflict resolution. This is not self-evident, especially in times when the national politics are unruly, markets unreliable, income opportunities unstable and livelihoods precarious.

The value of a community-based approach is its ability to raise the level and quality of dialogue and participation in natural resource management (Flint et al. 2008). At the same time it is important to recognize the difficulties associated with accommodating the different needs and priorities of various groups, and the influence of complex and informal social norms related to caste, wealth, age and gender. The men and the women, the elite and the low-caste need time to experiment with new behaviors, learning how to assert their needs while accommodating others', how to debate in public, and how to resolve conflicts (Nightingale 2005). They need time to recognize the

opportunities to improve the community's well-being and the benefits of including women's knowledge of forest ecology. The CFUG should thus be understood not only as an institution focusing on forest management, but also as a frame for a social process, providing both men and women the opportunity to explore new modes of interaction, identifying common interests. This wider conceptualization of a CFUG strengthens its ability to contribute towards the dual process of promoting the ecological health of the forest and democratic processes within the community. Both are processes that need time: they are unfolding and not to be hurried.

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Giri, K. 2003. Retrospection of Doomed Ecology in Nepalese Mountains. *WPLUS bi-monthly Newsletter*, Vol. 3, Issue 2, pp.1–3.

PRESENTATIONS AT CONFERENCES

Invited panel presentations

- Giri, K. 2009. The role of students from developing countries in the internationalization and their importance in the development policy context. Panel presentation at the Conference 'Internationalisation and development policy dimensions at universities and universities of applied sciences', held April 16-17, 2009 in Vienna, Austria.
- Giri, K. 2008. Living up to their experiences: Women in forestry sector. Panel presentation at the Conference 'Linking Excellence and Social Inclusion in Forestry Institutions' held on March 14, 2008 at the Institute of Forestry Campus, Hariyokharka, in Pokhara, Nepal.

Selected Presentations at scientific conferences

- Giri, K. 2009. Women as forest managers: Coping, contestations and change. Conference on women's empowerment and development: Meanings, manifestations, and contestations, held June 19-20, 2009 in Brighton, UK by the Institute of Development Studies.
- Giri, K. 2009. Outmigrating men: A window of opportunity for women's participation in community forestry? 2nd Gender and Forestry Conference: 'Making a difference in theory and practice' held June 15-18, 2009 in Umeå, Sweden.
- Giri, K. 2009. Understanding Participation as it Happens: Insights from Community Forestry Program in Nepal. Forum 'Development Matters' of the Centre for Development Research of the University of Vienna, held May 14, 2009 in Vienna, Austria.
- Christie, M. E, K. Giri & J. D. Gurung. Women in the Woods: Experiences of Women in the Forestry Sector in Nepal. Annual Meeting of the Association of American Geographers, held March 22-27, 2009 in Las Vegas, USA.
- Giri, K., & J. Gurung, 2008. Still a Man's World: Reflections of Women Foresters in Nepal. IUFRO Gender and Forestry conference, held November 16-19, 2008 in Dehradun, India.
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- Khandelwal, A., Gwanko, E., Giri, K. & M. Orsini. 2006. Poland Goes for Biofuels. 9th Conference of the International Society of Ecological Economics, 'Ecological Sustainability and Human Well-Being', held December 15-19, 2006 in Delhi, India.
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Poster presentation

Giri, K. 2009. Why include women in community forestry? To include differences or to make a difference. Tropentag 2009: Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources, to be held on October 6 - 8, 2009, Hamburg, Germany.

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WOMEN AS FOREST MANAGERS: THE EFFECT OF MEN'S OUTMIGRATION

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Doctoral thesis

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Dedicated to my parents

Reshama GIRI and Ghana Shyam GIRI

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I am responsible for misrepresentations and glaring omissions, if any.

Prologue

The road towards the final version of this thesis had been an iterative learning process for me. Three years of PhD that at times felt motivating, exhausting, lonely, but now feels endearing and gives me a sense of accomplishment, of a learning process.

Trained as a forester, my interest in gender and social issues got reinforced while working with rural communities in Nepal. Forestry, broadly viewed as a technical science, is ultimately a social issue in Nepal, where its management involves the complexity of sustaining livelihoods, preserving biodiversity, and challenging discriminating power relations. Particularly, the rural women have always fascinated me. I got intrigued, and puzzled thinking how the rural women seek novel situations, in times that seem so challenging. The lives women lead, their adaptive capacity despite the struggling livelihood and discriminatory limitations, have always inspired me to look for positive change despite the difficulties.

I believe that the goal of any research is to contribute to the transformative process of society. I chose to do this by illuminating discussions on social process analysis and adaptive governance of natural resources, with an explicit focus on women as adaptive managers. I hope that this thesis makes a positive contribution in this direction.

Abstract

The community forestry programme of Nepal aims to strengthen the participation of disadvantaged communities, such as women, in the management of natural resources. However, even after three decades, women's active participation remains a challenge. Empirical studies point to various discriminating social structures and mechanisms as factors limiting women's participation. The current trend towards men's outmigration, as observed in the Mid-hills of Nepal, is changing these social structures and might offer new opportunities for women's engagement in community forestry. This research investigates how the dynamic social context brought about by men's outmigration affects women's participation in community forest management.

Employing a case study approach, data were collected from four community forest user groups in the Mid-hills of Nepal, using key informant interviews, a survey, in-depth interviews and focus group discussions. Theoretical concepts such as feminism, gender, and the agency-structure debate were used to guide data analysis.

The case study shows that men's outmigration can increase women's participation in community forest management. However, different structural factors, especially family composition, mediate this influence. In the social context, that is understood as dynamic, women use various microsocial processes to influence forest management decisions as well as shape their roles and rights. Moreover, the findings indicate the need of understanding women's participation as a transformative process that is adaptive and responsive to the changing social context. This process is not well captured by quantitative surveys or statistical data. To adequately assess the progress in women's participation in the management of community forests, complementary qualitative methods need to be used.

These findings allow deriving theoretical, methodological and policy recommendations to support women's empowerment and their effective participation in the management of community forests. At the theoretical level, the study indicates that a mix of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. At the methodological level, it shows the need to employ a carefully designed mix of quantitative and qualitative methods to capture the various dimensions of women's participation and thus enrich our understanding of empowerment processes. At the policy and management level, these findings advocate the need to understand society as a mutable context and analyze the impact of policy measures within a reflexive and adaptive framework. Thus, a nuanced look at social processes is essential to ensure that increasing women's active participation in programmes like community forestry is achieved through a socially just change process that is both adaptive to the changing social context and transformative against discriminating power relations.

Keywords: Men's outmigration, participation, community forest management, women's empowerment, social processes.

Kurzfassung

Das Programm der Gemeinschaftswälder in Nepal zielt darauf ab, die benachteiligten Bevölkerungsgruppen, wie z.B. Frauen, in Entscheidungen über die Bewirtschaftung der natürlichen Ressourcen einzubeziehen. Nach drei Jahrzehnten ist die Bilanz jedoch nicht so positiv wie erhofft. Empirische Erhebungen haben eine Reihe diskriminierender sozialer Strukturen identifiziert, die die aktive Beteiligung der Frauen einschränken. Derzeit wird in den mittleren Höhenlagen Nepals der Trend beobachtet, dass Männer auf Arbeitssuche auswandern. Die führt zu Änderung in den sozialen Strukturen, und kann neue Möglichkeiten für die aktive Beteiligung der Frauen in der Waldbewirtschaftung bieten. Die vorliegende Studie analysiert daher wie sich die soziale Dynamik, die durch die Auswanderung der Männer verursacht wird, auf die aktive Beteiligung der Frauen in die Entscheidungsprozesse zur Bewirtschaftung der Gemeinschaftswälder auswirkt.

Im Rahmen einer Fallstudie wurden qualitative und quantitative Daten in vier Gemeinschaftswaldbenutzergruppen (community forest user groups, CFUG) in Nepal gesammelt. Es wurden Interviews mit Auskunftspersonen, eine umfangreiche mündliche Befragung, Tiefeninterviews mit Frauen und Fokusgruppendifkussionen abgehalten. Als theoretische Konzepte wurden feministische Theorien, Gendertheorien, Agency- und Strukturtheorien herangezogen.

Die Ergebnisse aus der Fallstudie zeigen dass die Auswanderung der Männer die Beteiligung der Frauen in den Entscheidungsgremien der CFUG erhöhen kann. Jedoch hängt diese Beteiligung von einer Reihe Einflussfaktoren ab, allen voran die Familienstruktur (insb. die Anwesenheit erwachsener Männer). Im sozialen Kontext, der als dynamisch angesehen wird, verwenden Frauen eine Reihe mikrosozialer Prozesse um die Entscheidungen, die den Gemeinschaftswald betreffen, zu beeinflussen. Auch verwenden sie diese Prozesse um ihre Rechte und soziale Rolle schrittweise zu verändern. Die Ergebnisse weisen darauf hin, dass es wesentlich ist, die Beteiligung der Frauen nicht ausschließlich anhand von leicht messbaren Indikatoren zu beurteilen, sondern die Beteiligung als Prozess zu sehen, ein Prozess der die Rahmenbedingungen (z.B. die politischen Unruhen) berücksichtigt. Dieser Prozess wird in den Statistiken (z.B. Anzahl der Frauen in Führungsgremien, Anteil der Frauen in Versammlungen) schlecht abgebildet, so dass er übersehen werden kann.

Aus der Fallstudie wurden theoretische und methodologische Anregungen, sowie Politikempfehlungen abgeleitet. Die Studie zeigt, dass eine Kombination aus mehreren Theorien, sowie aus quantitativen und qualitativen Erhebungsmethoden, erlaubt, komplementäre Sichtweisen auf die Fragestellung zu werfen. Erst dadurch wird ein differenziertes und ganzheitliches Verständnis von Prozessen ermöglicht. Bezüglich der Politikempfehlungen unterstreicht die Studie die Bedeutung von lernenden, sich adaptiven Politikprozessen, da nur diese eine Anpassung an die sich verändernden Bedingungen (innerhalb und außerhalb der Benutzergruppe) sicherstellen.

Table of Contents

Thesis structure	10
PART A: WOMEN AND COMMUNITY FORESTRY	11
1 Overview	12
2 Background: Community forestry in Nepal	14
2.1 Nepal in context	14
2.1.1 Farming system and forest resources	14
2.1.2 Women in Nepal	15
2.1.3 Men's outmigration	17
2.1.4 Research on left-behind women and variability	18
2.2 Community forestry and participatory decision-making	20
2.2.1 Community forestry and the concept of CFUG	20
2.2.2 Women's participation in managing community forests	21
2.3 Men's outmigration as a factor in women's participation in a CFUG	24
3 Theoretical concepts related to women's participation in natural resource management	26
3.1 Feminist theories	26
3.2 Gender theories	28
3.3 Theories relating agency and structure	30
3.4 Women's participation as a gendered process with interplay of agency and structure	31
4 Methods	33
4.1 Research strategy: a multiple case study	33
4.2 Research design: an iterative process	34
4.3 Start of fieldwork	36
4.3.1 Site selection	36
4.3.2 Selection and orientation of research assistants	36
4.3.3 Pre-testing the questionnaire	37

4.4	Data collection	37
4.5	Data analysis	38
5	Results: Summary of the papers	40
5.1	Paper I - Development and status of community forestry governance in Nepal	40
5.2	Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal	41
5.3	Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?	43
5.4	Paper IV - Nepali women using community forestry as a platform for social change	45
6	Discussion and perspectives	47
6.1	Summary of the present dissertation	47
6.2	Theoretical implications	48
6.3	Methodological implications	50
6.4	Policy and Management implications	52
6.5	Policy and Management implications	52
6.5.1	Dynamic social context and changing power relations	52
6.5.2	Participation as an adaptive governance process	53
6.6	Perspectives for future research	55
7	References	57
	PART B: PAPERS	73
	Paper I	74
	Paper II	101
	Paper III	113
	Paper IV	127
	Curriculum Vitae	145

Thesis structure

This thesis comprises two constituent parts. Part A presents the overall context, reviews the relevant literature on women and community forestry, details the theoretical and methodological approach, and summarizes the results and implications. Part B comprises the following four papers:

- I. Koirala, R., K. Giri, and B. Pokharel. 2008. Development and status of community forestry governance in Nepal. Proceedings of the Conference on "Forestry in a climate of change", the 2008 National Convention of the Society of American Foresters, held on 5-9 November 2008 in Reno-Tahoe, Nevada, USA.

Rajesh Koirala and I wrote the paper with inputs from Bharat Pokharel.

- II. Giri, K., B. Pokharel, and I. Darnhofer. 2008. In the absence of their men: Women and forest management in the Mid-hills of Nepal. In *Environmental Economics and Investment Assessment II*, eds. K. Aravossis, C.A. Brebbia and N. Gomez, pp. 295-304. Southampton: WIT Press.

I wrote the paper, with inputs from Bharat Pokharel and Ika Darnhofer.

- III. Giri, K., and I. Darnhofer. Outmigrating men: A window of opportunity for women's participation in community forestry? (Accepted with revisions, *Scandinavian Journal of Forest Research*)

An earlier version of this paper was presented at the 2nd Gender and Forestry Conference, held on 15-18 June 2009 in Umeå, Sweden.

I selected the topic of the paper, analyzed the data and wrote a first draft. This first draft was commented on by Ika Darnhofer. After I provided a revised draft, Ika Darnhofer contributed to polishing the text.

- IV. Giri, K., and I. Darnhofer. Nepali women using Community Forestry as a platform for social change. (Accepted with revisions, *Society & Natural Resources*)

An earlier version of this paper was presented at the 4th Young Scientist Forum, held on 29 October 2008 in Vienna, Austria. A later version of this paper was presented at the 'Development Matters Forum', Centre for Development Research, University of Vienna, held on 14 May, 2009 in Vienna, Austria.

The topic of the paper and analytical angle was proposed by me, with some additional suggestions by Ika Darnhofer. I analyzed the data and interviews and wrote the first draft. Based on comments by Ika Darnhofer, I revised the draft. Together we worked to finalize the paper

PART A: WOMEN AND COMMUNITY FORESTRY

1 Overview

While forests are a classic example of human-ecosystem interdependence, approaches to understand the association has varied greatly over the last few decades. With changes from top-down to bottom-up approaches (FAO 1978; Cohen and Uphoff 1980; Chambers 1983; Brownlea 1987; Farrington and Martin 1988), local communities have increasingly come to be considered as key stakeholders for sustainability (Agrawal and Ostrom 1991; Gilmour and Fisher 1991). As a result, the need to involve them and ensure their influence in shaping forestry policies became evident. This led to the formulation of various participatory forestry programmes around the globe.

Nepal is at the forefront of experimenting with the global theme of management shifts (Mahapatra 2000; Giri 2005), where state-based regulations are decentralized, power of decision-making are devolved to the local people, especially regarding the management of forest resources. At present, Nepal has gained worldwide recognition for its community forestry programme (Arnold 1998; Malla 2000; Chakraborty 2001; Pokharel 2004; Pokharel et al. 2005). Despite such significant leaps, challenges remain, particularly in terms of achieving significant women's participation in forest management (Kellert et al. 2000; Agarwal 2001a,b; Neupane 2003; Timisina and Paudel 2003; Buchy and Subba 2003; Upadhyay 2005). Indeed, achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women (Agarwal 2001a; Lama and Buchy 2002; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009).

Concomitantly, in the Mid-hills of Nepal, a trend of men's outmigration has been observed (APROSC 2003; NIDS 2007). This trend has led to changes in social relations and structures, leading to "feminization of communities" (Gill 2003; Pully et al. 2003; Kaspar 2006). The changes include the availability of remittances, an increased workload for women as well as a shift in women's responsibilities and their participation in the public sphere. Studies on these effects have shown a high level of heterogeneity in how communities adapt. In some communities, families without a male-head of household have lost access rights to common resources, while in other communities women have achieved more decision-making powers (Verma 2001; Hadi 2001; Zachariah and Rajan 2001; Haas 2007). Most of these studies have, however, focused on the effect of men's outmigration on women's role within the household (Khaled 2002; Kaspar 2006). The question thus remains whether and how men's outmigration affects women's participation in the management of common natural resources. Given that community forests are an important resource for women, the ability to articulate their needs and priorities, and to ensure that these are met is of particular importance. Hence, the overall goal is to assess which vital conditions and processes can increase women's participation in community forestry.

Based on this background, the central questions that guided this study are:

- What is the current status of community forest governance in Nepal? (Paper I)
- In what ways does men's outmigration affect women's participation in the management of the community forest? (Paper II)
- What factors affect the extent to which women participate in the management of the community forest during men's outmigration? (Paper III)
- How do women shape their social role in the public sphere so as to increase their participation in community forest management? (Paper IV)

This thesis is thus concerned with analyzing whether and how men's outmigration facilitates the process of women's active involvement in the management of community forests. The effects of men's outmigration on women's ability to influence decision-making, their public status and factors leading to heterogeneity need to be better understood. To contribute to this understanding, a combination of quantitative and qualitative methods was used, and a mix of theories was used as a guiding framework for the inquiry.

The following section presents the background and relevance of the study. This is followed by a section where theoretical approaches analyzing women's involvement in natural resource management are explained. The methods section presents the data collection and analysis techniques used in the study. Subsequently, the results are presented by summarizing of the papers I-IV. Thereafter, these results are used up for a broader discussion regarding women's participation in natural resource management. Finally, some thoughts for future research are recommended.

2 Background: Community forestry in Nepal

2.1 Nepal in context

2.1.1 Farming system and forest resources

Nepal is a landlocked country situated between China and India. Topographically, Nepal can be divided into three ecological zones (see Fig. 1), the Mountains (35%), the Mid-hills (42%) and the Terai (23%), each accounting for 7.3%, 44.3% and 48.4% of national population respectively (CBS 2001). In 2007 Nepal had approx. 29 million inhabitants, half of which are women (CBS 2001). More than 80% of Nepal's population lives in rural areas (CBS 2001). Most of the Nepalese are poor with an estimated 38% of the population living below the poverty line (Pradhan and Shrestha 2005:1) at a yearly per capita income of US\$457 (Basyal, 2008).



Figure 1: Map of Nepal (Source: maps/npcgis/NatBio00002.jpg)

Agriculture is the mainstay of the economy, providing livelihood for three-fourths of the population and accounting for 38% of GDP. Agriculture is subsistence based. Agriculture is highly dependent on rain and its productivity has not increased significantly during past decades (FAO 2000). Increasing agriculture production has been hampered by two reasons (ICIMOD 1998). Firstly, farm sizes are very small and land holdings fragmented: the average landholding size per household is 0.96 hectare, with an average of 4 parcels per holding (CBS 2001). In the Mountains and the Mid-hills of Nepal, a majority of households (67.5% and 53.6% respectively) have farm sizes

between 0.025 and 0.051 hectare (Munakarmi 1996 in ICIMOD 1998). Notably, out of the three ecological belts, land fragmentation is the highest in the Mid-hills (0.66 hectare) because land is mostly divided into terraces to counter erosion effects. Secondly, given the high elevation, steep slopes, shallow soils, and high precipitation, intensified cropping is not possible in the Mid-hills and the Mountains (ICIMOD 1998).

A majority of rural households thus depends on livestock and forest resources to supplement their livelihood. Livestock is a source of food, of income and a means of non-cash exchange. It also provides draught power, organic manure for crop production, and is used for transportation. The livestock population in Nepal, in relation to the arable land, is one of the highest in Asia (ICIMOD 1998). The livestock population in Nepal is estimated to be about 6.9 million cattle, 4 million buffaloes, 6.9 million goats, 0.7 million sheep, and 0.9 million pigs (CBS 2001).

Nepal has 3.9 million hectares of forest, covering 27.3% of the country (FAO 2005). Forests provide basic subsistence needs such as fuelwood, fodder, bedding material for animals and to some extent timber. Fodder from forests satisfies about 37% of the total livestock fodder need, and the fuelwood from forests meets about 81% of the total fuel consumption (WECS 1997 in FAO 2000). About two-thirds of households rely on fuelwood for cooking and heating, and an average household spends about 50 person-days for fuelwood collection in a year (Baland et al. 2004). Fuel needs differ in different communities depending upon altitude, climate, and use of agricultural residues. Using kerosene or liquid petroleum gas requires an additional cost of transporting and cow dung cakes are mostly used for manure. Fodder collection is more dominant in the Mid-hills. Therefore, most of the forests in the Mid-hills are managed for fuelwood and fodder and about 65% of these forests have predominantly small-sized timber (Winrock 2000:7). Poor people heavily depend upon forest resources to fulfil their basic (subsistence) needs for fuelwood, forage, timber, medicines etc, as they do not own private forests or adequate agricultural land (Adhikary and Ghimire 2002).

For more than a decade, Nepal has experienced internal conflicts, initiated by a group calling themselves “Maoists”. Starting in 1996, Nepal has undergone severe political instability (Taras 2006). In 2006, after a series of joint meetings between Maoists and the Government of Nepal, Maoists stopped the guerrilla-war and became a political party in the mainstream development. At present, a working parliament, representing all the political parties, including Maoists, is governing the country.

2.1.2 Women in Nepal

The national constitution of 1990 declares that the State shall not discriminate against citizens on the basis of religion, colour, sex, caste, ethnicity or belief. And yet, various customs based on socio-cultural ideology are discriminating in nature. Nepal has more than 100 ethnic groups (CBS 2001) and women’s status varies among these groups. Women of Tibeto-Burman origin generally enjoy more freedom than those of Indo-Aryan origin (APROSC 2003). However, it is difficult to generalize the situation of women in

Nepal, as different ethnic and cultural groups in the country treat the various roles of women with differing emphasis and priority (UNICEF 2006:61).

Men's and women's roles are socially and culturally determined (Pyakuryal and Suvedi 2000:57). In Nepal, a common understanding is that men are responsible for earning economic resources (such as money, livestock etc.) to support the family. Most of the work that requires public contact (e.g., attending public meetings) is performed by men. Also, some activities such as ploughing, fixing a roof, slaughtering animals and felling/splitting large trees are performed exclusively by men (Chhetri 2001). Women are responsible for maintaining the household chores and rearing of children. A study by Bhadra (1997 in Chhetri 2001) states that women perceive themselves as nurturers and men as providers despite spending more time than their men in productive activities.

Women's positions in society are mostly determined by their relation to men, i.e. through their position as daughter, wife, mother etc. Women's inferior status is mainly determined by cultural ideology, symbolism and socio-structural arrangements (Shrestha 1999, ICIMOD 1999). One widely practiced element of cultural ideology is the preference of son over daughter (during child-birth), with Nepal having one of the highest indices of son preference in the world. Sons not only pass on the family name, but also represent insurance for parents in their old age, and can carry out important rituals when parents die (UNICEF 2004:51). Daughters are not allowed to carry out such rituals in Indo-Aryan ethnic groups. In some Tibeto-Burman groups, such as the Gurung, a son-in-law is required to conduct the crematory rituals for his in-laws, thus enhancing the role of a daughter.

Existing symbolism based on purity concepts can also implicitly devalue women (such as defilement and pollution). As an example, women are considered impure when menstruating and during childbirth and are culturally forbidden to enter kitchens and temples. Women have only limited access to resources and only limited control over those they can access. Of the total landholdings, women own only 8.1% and the average size of their land is just about two-thirds of that an average male holding (UNICEF 2004:55). Marital status determines female's access to land and other property. A married daughter is not legally entitled to inherit her parent's property, whereas a wife is liable to entitle her husband's property. But a married woman can only claim her share of her husband's property, if he fails to take care of her needs, fails to provide her with food and clothing, or throws her out of the house (UNICEF 2006:67). Therefore, the daughter not only forfeits her right to parental property but also has only limited rights to her husband's property. Women also lag behind men in terms of education. Women's literacy is 38.9% compared to 63.5% for men (CBS 2001).

Despite the differences in social roles and meagre access to resources, women's contribution to both farm and non-farm activities is significant. Studies on family time-allocation have provided some estimates of rural women's overall contribution to the household economy (Sontheimer et al. 1997; Azad 1999 in IFAD 1999). In the Mid-hills, women were found to do equal to or more agricultural work than men (Sontheimer et al.

1997). In another study, women were found to work about 16 hours a day, compared to men who worked for about 9 to 10 hours (Azad 1999). Likewise, collection of forest products, mainly fuelwood, is primarily women's responsibility (FAO 1997), but in many places men are also involved. A study by Buchy and Subba (2003:315) indicates that both women and men identified fodder collection as one of the most laborious tasks. Many women reported spending more than four hours a day on it.

The work burden of women in Nepal is higher than the global average, not least because the participation of women in productive activities (informal trade) is one of the highest in the world (UNICEF 2004:52). Additionally, IFAD (1999), in a study undertaken in the central Mid-hills of Nepal, concludes that women's workloads are also increased by the geography and infrastructure, men's outmigration and new activities promoted under development projects. Collecting fuelwood, water and fodder becomes much more tiring and time consuming in the Mid-hills and the Mountains of Nepal due to difficult terrain conditions and poor access to roads, markets and water supplies, and thus consuming more of women's time. Similarly, a study undertaken by the Asian Institute of Technology in 1999 (IFAD 1999) in three villages in Kavre Palanchok district, found that men's outmigration doubled women's physical work burden and also increased women's community activities, especially for those women without sons. Women-headed farm households have a hard time, particularly when male labour is not available for tasks such as ploughing, which is taboo for women. Finally, newly promoted development activities such as in the case of forest management, women were found to carry out pruning and thinning of trees and were also involved in raising fodder species, because men were often absent.

Women's position in Nepalese societies can, however, vary. Wealth can affect the division of labour as wealthier women delegate some responsibilities to employed labour (Buchy and Subba 2003; Rankin 2003). Age and position of the women within the family (e.g. daughter, daughter-in-law or mother-in-law) also can affect decisions on who does what (Bhatt et al. 1997; Shrestha 1999). Caste affiliation seems to have some influence on the role and status of women. For instance, among the (so-called) lower caste people, economic imperative seems to put women next to their men in power status (in the absence of economic disparity) and for their contribution in maintaining the family economy (Chhetri 2001).

2.1.3 Men's outmigration

Migration has been a widespread phenomenon across the world. Nepal has had a long history of outmigrating men (ESCAP 1995), and in some rural districts, up to 70% of men outmigrate (Seddon et al. 2002). Despite being a dominant phenomenon, this is one of the least researched and least understood issues in Nepal. While the migrants, their problems, earned income, networks, development etc. have received considerable attention and have been the subject of extensive research, the gender dimension of migration, particularly the source communities and those left behind, has been largely

under-researched (Rigg 2006). In Nepal, scholars have investigated the interrelationship between migration and poverty, the remittance patterns of the migrants, and the impact of remittances on poverty alleviation and rural development (Regmi and Tisdell 2002; Seddon et al. 2002; KC 2004; Thieme and Wyss 2005). However, few studies have attempted to tie economic changes to the social and cultural changes that arise due to migration and are reinforced by it (Rigg 2006). In this context, it is important to examine the gender dimension of migration as gender roles, relations and inequalities not only affect those who migrate, but also impact the economic and social situation in the sending communities. Indeed, when men outmigrate, they leave their wives, mothers and daughters behind in the area of origin. These left-behind women need to reorganise themselves and cope with new challenges.

2.1.4 Research on left-behind women and variability

Previous studies have indicated that men's outmigration can lead increasing independence to the left-behind women. In the absence of their male guardians, women may have better access to resources (Hadi 2001). Women may also face an expanded space where they can make their own decisions, develop their own coping strategies (Hadi 1999; Zachriah and Rajan 2001). This can lead to a (re)structuring of traditional gender roles and a modification of cultural values (Hadi 2001; Sadiqui and Ennaji 2004). It can lead to changes in the gender division of labour including a "feminization of agriculture" (Gill 2003; FAO 2006). Women's labour contribution to agriculture and in the household can be more visible to the family members, and therefore more appreciated, thus increasing their status (Zachriah and Rajan 2001). Sometimes, the absence of their husband makes left-behind women more active in community development activities and farming (Deshingkar and Sven 2004:27).

Research on "Gulf wives" (women whose husbands outmigrate to Arab countries) in Kerala, India, asserts increased autonomy and social status of women in the absence of their husbands (Zachriah and Rajan 2001). When husbands outmigrate, women can develop innate capacity for decision-making, not only within the household but also within the community. "The husband's absence, increased economic resources at the disposal of the wife and the expansion of space and communication in public affairs (such as banking, schooling of children) have all been instrumental in transforming a shy, dependent woman into a self-confident autonomous manager with a status quo equal to that of any man in the neighbourhood" (Zachriah and Rajan 2001:69).

Kaspar's (2006) research on labour migration and gender relations in Kalabag village in Nepal reveals disparate and temporary changes in left-behind wives' decision-making. Her findings showed that left-behind wives take on many of their outmigrated husband's tasks which increase their workload. And yet, their influence in decision-making is constrained by several factors such as household type (extended versus nuclear family), relevance of decision factor (strategic versus operational decisions) and duration of absence of their husbands. She asserts that though women's participation in

public affairs increases, this participation is limited to increased physical attendance only. Moreover, women's expanded role and decision-making reverts back to the original situation once their husbands return to home, except in financial management and presence at community meetings (Kaspar 2006:299). And yet, she reports that some left-behind women may participate more in decision-making after migration, than they did prior to their husband's outmigration (Kaspar 2006:295). It was also noted that the prolonged absence of men can allow women to become more vocal in village decision-making.

Karki and Bhattarai (2004) state that, during men's outmigration, women in the Mid-hills are forced to take up chores, traditionally done by the men. Women ploughed the fields, repaired and replaced roofing material on their houses, took care of livestock and did every household chores, which was otherwise done by the men (Karki and Bhattarai 2004:93). Such changes imply structural adjustment in society where women, due to the need to cope with men's absence, break traditional forms of gendered activities and take up new roles and activities. However, the extent of benefits that women derive during men's outmigration are determined by factors such as women's age, their relative position in family such as wife or mother (Sadiqui and Ennaji 2004), and their ability to successfully adapt to the changing roles (Khaled 2002).

However, other studies contradict such positive images (Gurung 1999; Verma 2001; Haas 2007). They assert that men's outmigration leads to increased burden of responsibility and labour and further marginalization of women (IFAD 1999; Gurung 1999; Gurung and Gurung 2002). Also, they point out that this increase in women's labour does not necessarily result in women's control over the products of that labour (Gurung 1999; Verma 2001). Though women acquired men's roles in their absence, they often did not acquire their authority and decision-making power (Kaspar 2006). Another aspect is that the effects of outmigration are often temporary, and the gender relations revert back to the initial situation, once the husbands return. Therefore, it is still unclear, under which conditions men's outmigration can lead to changes in gender roles, especially with respect to women's increased access to decision-making.

Although it is widely assumed that women experience increased financial gains due to men's outmigration, in many poor families, the absence of their husbands can create a lack of economic means and can also lead to destitution for many of the left-behind women (Sadiqui and Ennaji 2004). If remittances were used to hire farm labour that would lessen women's extra work (FAO 1995). However, remittances might have no effect in cases where the remitted income is used for different purposes such as buying land. In such case, migration hardly has the often assumed effect on changing norms on gender roles (Haas 2007:35).

2.2 Community forestry and participatory decision-making

2.2.1 Community forestry and the concept of CFUG

FAO (2006) defines community forestry as any situation which intimately involves local people in a forestry activity. Community forestry programme arose out of the discourses of ecological crisis and forest degradation in Nepal (Nightingale 2003:527). Community forestry in Nepal aims to cover the basic needs, especially for those who are most dependent on forest resources; to promote community development through the income obtained from the sale of the forest products; and to conserve forests. Community forests are managed through a system where local people control, manage and use forest resources for their own benefits (Acharya 2002; Adhikary 2002), i.e. local people are involved as decision-makers (Winrock 2002). Community forestry stands on: a) institutionalization of farm-forestry relations, b) devolution of rights from the state to citizens (Belbase and Regmi 2002) and c) full entitlement of benefits to local users (except in the Terai, where local people have to pay a small percentage of revenue to the State).

The rights linkages are institutionalized by forming a user group, called a community forest user group (CFUG). The Forest Regulations 1995 (HMG/N 1995) and the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) include a detailed description of how the community forestry programme is to be implemented. The process of handing-over the management (but not ownership) of the forest should start with a written application to the Department of Forest which then sends a technician to help the user group prepare the constitution. The forest “constitution” outlines the rules for the use and management of the community forest, the rules for identifying the forest users, the rules for establishing the executive committee as well as their respective rights and responsibilities. All the households that use a particular forest, as demarcated in the operational plan of the forest, can become members of the CFUG. Department of Forest recommends a standard procedure using which the general assembly (comprising at least one member of every household of the user group) can elect an executive committee through mutual agreement. The general assembly should hold the rights to decision-making and the executive committee’s role is restricted to implementing the decisions taken by the general assembly. Once the constitution is agreed upon, it is submitted to the District Forest Office which registers the user group.

Once registered, based on inputs from forest users and with the assistance from the District Forest Office, the executive committee develops an operational plan for the forest. This plan describes the location and physical condition of the forest, and prescribes specific silvicultural prescriptions for protecting and improving the forest. It specifically describes what type of forest products can be collected and harvested and how and to whom benefits from the forest are distributed. After the District Forest Office

approves the application, the rights and responsibilities of forest are handed over to the user group, now called as CFUG.

Decision-making takes place at two levels in a CFUG: the executive committee and the general assembly of all users. The executive committee's role is more that of facilitating and implementing the decisions taken by the general users. An executive committee is understood as the representatives of the general users, and is meant to bring forth the concerns of the general users. An executive committee usually has between 11 and 15 members, but the number may vary depending on the context.

At present, 1,654,529 households are members of 14,389 CFUGs, which cover about 31% of the total forest area in Nepal (DoF 2007).

2.2.2 Women's participation in managing community forests

The basic concept of community forestry rests on the notion that forests should be managed by those who use them. Involving the real users of forest can incorporate their knowledge into forest management and motivate to sustain conservation. Women are the primary forest users since they are responsible for collecting most of the fuelwood, fodder, leaf compost and bedding as well as controlling grazing. Being primarily involved in the collection and management of forest resources, women have developed a traditional knowledge base about the management and utilization of their forest (Agarwal 2001b). Such traditional knowledge can play an important role in the conservation of different species and varieties depending on their usefulness to the community (Upadhyay 2005:229). Considering women's dependence on and knowledge about forest resources, women's participation is deemed essential for the sustainable use of forests and the management of community forestry programmes.

Men's and women's interests and incentives for environmental resource management can differ in many settings, partly because of their socially constructed roles, and partly because of their lesser property rights and gendered interests (Masika and Joekees 1997:10; Cornwall 2003). This can lead to differing needs and use patterns of forest products between men and women. Men's and women's interests and incentives for environmental resource management can differ even within a household. Paudel (1999, quoted in Upadhyay 2005) highlighted the different priorities of women and men in the use of forest products in Nepal. Women opted for fuelwood, fodder and grasswood, whereas men opted for timber, fuelwood, and non-timber forest products. Women were concerned about covering their daily consumption needs, which were supplemented by forest products. Men's priority was to use forest as a supplement to the household income. Similar results are put forth by Flickenger (2003 in Howard 2003) in her study of the use of plants in Western Ghats in India where men gather plants primarily for use in agriculture (fodder and mulch); while women use the plants more for household purposes (medicines, cleansers, fibre, food and tools). Thus women's needs and priorities must be incorporated into community forestry, to ensure a just allocation of benefits. Since CFUGs regulate the mechanisms to manage and use the forest

resources by devising certain rules and control mechanisms, women's participation in community forestry can provide an avenue where women can voice their needs, priorities and perspectives and design mechanisms to fulfil them.

The Government of Nepal has emphasised the role of women's participation in various Development Plans. The Forest Act 1993 underlines women's role in community forestry programme. Different measures are recommended in policy and practice to increase women's participation. As an example, one of the widely used provisions is to allot one third of the membership in the executive committee to women. Likewise, the Operational Guideline of the community forestry program 2002 (HMG/N 2002) stipulates that for each household that is a member of a CFUG, the name of two adults (a woman and a man) should be registered in the forest constitution. The aim of listing a man and a woman for each household is aimed at encouraging women's participation in forestry meetings.

To distinguish between different levels of participation, Arnstein's (1969 in Ananda 2007) proposed a "ladder of participation". This ladder provides eight rungs, whereby each corresponds to a specific extent of citizen's power in determining decisions. The bottom rungs of the ladder are (1) "manipulation" and (2) "therapy" which describe levels of non-participation. Here the objective is not to enable citizens to participate in planning or conducting programmes but to enable power holders to educate the participants, i.e. people are told. Rungs (3) "informing", (4) "consultation" and (5) "placation" denote to levels of tokenism that allow the chance to hear, to speak and to advise but lack the power to ensure that those views will be considered, i.e., power holders retain the rights to decision-making. Rungs (6) "partnership", (7) "delegated power" and (8) "citizen control" involve increasing negotiation and decision-making of participants with traditional power holders.

Agarwal (2001a:1624) has adapted Arnstein's ladder of participation in community forestry. She puts forth six levels of participation: nominal < passive < consultative < activity-specific < active < interactive. Each level is determined by the extent of people's activeness. She states that mere membership to a group without any involvement reflects "nominal participation". "Passive participation" refers to a situation where women attend meetings and merely listen to decisions alone, without actually voicing their concerns. "Consultative participation" seeks for women's opinions in specific matters without any guarantee of their inputs influencing final decisions. "Activity-specific participation" is where women are asked to (or volunteer to) undertake specific tasks. Further, her notion of "active participation" is that women express their opinions, whether solicited or not and take different initiatives. The highest level, "interactive participation" is when women have the ability to speak, influence and implement the decisions.

Although community forestry is said to be a participatory process, active participation of women is still lagging far behind expectations (Shrestha 2004). Empirical evidences suggest various factors that constrain women's participation in community forestry.

Some argue that the socio-cultural context of Nepalese society and local power structure are the major barriers hindering the participation of women (Agarwal 2001a; Lama and Buchy 2002; Gupte 2004; Agrawal and Gupta 2005). This socio-cultural context is influenced by factors such as caste, wealth, age, education as well as individual status in the society and in the household (NPC of Nepal and UNICEF 1996; Agarwal 2001b). Additionally, women's high workload (IFAD 1999), the inadequate timings of forest meetings (Lama and Buchy 2002), the resistance from village men on the basis of gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lama and Buchy 2002) are found to influence women's participation in community forestry.

Decision-making processes in CFUGs tends to be captured by wealthier and upper caste men (Tiwari 2002; Gauli and Rishi 2004; Maskey et al. 2006). Poor individuals participate in certain tasks (forest protection, participation in thinning, pruning) as opposed to rich individuals who participate in decision-making (Maskey et al. 2006: 270-272). Gauli and Rishi (2004) state that the level of participation in decision-making of lower castes and women was low compared to middle and upper castes and men. Lama and Buchy (2002) condemn the social and gender blindness of community forestry stating that it fails to account for and address the in-built shortcomings of participation where power and status quo determines participation to a large extent. They also note that the current focus of community forestry is on the biophysical dimension of natural resource management (e.g.: greenery, good harvesting stock of trees etc.) but little has been done to reduce the drudgeries of women. As such, women's interests and concerns in community forestry are not well addressed and very few decisions that directly benefit women are implemented.

The system of representation in CFUG and executive committees can also lead to differences in participation and decision-making (Agarwal 2000; Nightingale 2001; Gautam 2004; Upadhyay 2005; Acharya 2006; Agarwal 2009). Gautam (2004) puts forth that the number of women into leadership positions is increased through promotion of 'women only' CFUGs. However, out of some 14,380 forest user groups formed so far, only about 770 are 'women-only' groups (DoF 2007). Some authors also pointed out that women-only groups are few in number, small in area, and with forests of poor quality (Gentle 2003; Rai and Buchy 2004). Therefore, management of such CFUGs cannot be equated with women's improved decision-making.

Agarwal (2000:305) states that the virtual absence of women from the decision-making bodies can lead to significant gender inequalities in the distribution of costs and benefits, and a range of observed or potential inefficiencies in functioning of the overall system. Nightingale (2001) points out that women's representation in executive committees can bring forth women's decisions. She explains that women's representation can also increase women's value from mere labour contributors to decision makers arguing their own perceptions, which can be regarded as scaling up in the social hierarchy.

Women's opportunities to influence decision-making in executive committees rest not only on getting women into these committees. It also depends on how and whether the women in committees represent women's interests, whether they effectively raise their and other women's views and, when they do, if they are heard (Upadhyay 2005). Acharya (2006) suggests that by positioning women as authoritative decision-makers (e.g. by assigning them vocal positions such as President or Secretary) in 'mixed' executive committees of CFUGs, women can actually access and control the decisions and address their concerns. Acharya (2006) cites the example that when women made decisions, they allocated a significantly larger share of funds (as compared to men) for social and community development activities, which can contribute to addressing the issues of poverty and social equity in Nepal.

Other factors that can affect the participation of women are dominance of local elites (Nightingale 2001), systemic gender ignorance in forest policies and programmes (Agarwal 2001a:1623), exclusion of women during the initial stages of community forestry handover (Giri 2005b), an apparent lack of interest, lack of self-confidence and awareness (Nightingale 2001; Lama and Buchy 2002), inferiority, vulnerability and a lack of transparency (Lachapelle et al. 2004).

Generalized empowerment strategies and plans of action will prove to be meaningless, if marginalized and disadvantaged groups such as women remain isolated or ignored, particularly because mainstream development policies and programmes almost invariably fail to reach them. Given that a) community forests are an important resource for women for fulfilling the subsistence household requirements; b) that men and women differ in their needs, priorities of forest products, and c) men and women adopt different management perspectives to address their needs in community forest management; it is imperative to include women and encourage them to articulate their needs and priorities. Upadhyay (2005) emphasizes that excluding women in community forestry can result in negative consequences not only for gender equity and women's empowerment, but also for efficient functioning and long term sustainability of these initiatives. Integrating women's needs and priorities in community forestry is thus essential to promote sustainable conservation of community forestry (Agarwal 2000; Agarwal 2009).

2.3 Men's outmigration as a factor in women's participation in a CFUG

Women's involvement and active participation in decision-making is essential to ensure that women's needs, priorities and perspectives are incorporated in the management of the community forest. However, increasing women's involvement is influenced by the socio-cultural context of Nepalese societies. However, such socio-cultural contexts are not static but undergo continuous adaptations under different mediating factors. Given that men's outmigration can lead to social transformation in gender roles and behaviours, this thesis investigates the ways in which men's outmigration affects women's participation in community forest management. By building on gender and

feminist theories, as well as by discerning the relative role of structures and individual agency, the goal is to the better understand how women themselves perceive the effect of men's outmigration on their ability to take on a more active role in the CFUG.

3 Theoretical concepts related to women's participation in natural resource management

“Nothing natural about natural resource management.”
(Anna Tsing, 1999:9)

As Tsing puts forth in the above quote, natural resource management is all ‘made’, both regarding the epistemological understanding of power and knowledge (Mohanty 1991; Mohanty 1998; Gururani 2002a) and concerning the application of techno-scientific ideas (Ojha et al. 2009). Moreover, resource management occurs in a social context, where differences in culture, norms and power relations regulate the systemic functioning of natural resource management. As documented in previous sections, women's participation in the management of natural resources such as forest often involves complex and interrelated parameters. This complexity stresses the need of an embracing concept that allows a careful analysis of the extent of women's participation in forest management, while taking into account the power relations in a given social context.

In this perspective, general concepts of Feminism and of Gender are discussed as approaches for understanding the division, role, knowledge and influence of women and men in environmental decision-making. Particular focus is given to understand such differentiation from a power perspective in both macro (related to men's outmigration) and micro (household roles and relations) perspectives, and how, why and when, such power relations get affirmed, negotiated, or changed. To understand the power dynamics and their influence to social change, theories relating to agency and structure are used.

3.1 Feminist theories

Feminist theories denote a range of theories with the basic principles of “Feminism”, which asserts equal rights and demands legal protection for women. Feminist theory is manifested in various forms (e.g. Marxist feminism) and disciplines (history, environment etc.). Central to studying women's roles and relations with the natural environment, Ecofeminism emerged in the mid-1970s, and was the first attempt to theorize these interactions (Banerjee and Bell 2007). There themes are at its core: exploitation, domination and oppression (Sargission 2001). Ecofeminism has itself come a long way since its inception, and there is now vast diversity within the field. The diversity can be broadly categorized into three positions: (a) essentialist ecofeminism, (b) materialistic/post-structural feminism, and (c) colonial/third-world feminism.

Essentialist ecofeminism alludes to a conception that there is a natural or essential connection between women and nature that gives women an innate understanding of

nature (Chafetz 2006). It contends that women, by virtue of their biologically based differences, are superior in some areas, such as nature and environment. This superiority is termed as the “feminine principle” (Shiva 1988). Many other eco-feministic writers supported the assumption that women, due to their proximity to, and intuitive relationship with nature develop innate “women-nature connections” (Shantz 2002). This position also contends that women’s oppression and destruction of the environment are interconnected forms of domination (Rogers and Shutten 2004). Essentialist ecofeminism plays a major role in questioning canonical knowledge and standards through an utopian perspective (Sargission 2001). It has also documented women’s unexplored involvement, role and knowledge in environmental management. However, its essentialist epistemic privilege (women as ‘essential natural lovers’, women as ‘holding nature’s knowledge’ etc.) has been extensively critiqued (Agarwal 1992; Leach 1992; Burley 2001). These critiques almost uniformly argue that such privileges might represent the inequalities and domination (now by women of men) of the very traditions it romanticizes. Also, it tends to sideline questions of inequality and social organization of oppression (Chafetz 2006). Further, essentialist ecofeminism tends to use “women” as an undifferentiated category, assuming that all women have the same kind of sympathies and understandings of environmental change. This is considered by many as too idealistic, and has been criticized for not focusing on the actual conditions of women (Leach 1991; Agarwal 1992; Burley, 2001). This critique highlighted the need to study women’s relationship with the environment in particular social, historical, and material contexts.

In response to such a critique, material/post-structural feminism espouses that material and other structural conditions where people live, are complicit in producing particular kinds of environmental problems. These problems place additional responsibilities on women in charge of securing the subsistence needs of their families (Agarwal 1994). Agrawal (1992) pinpointed the importance of material practices (which also includes issues of caste, class, race and gender) in bringing women closer to nature. This close association gives women more understanding and knowledge. Taking a case study in India, she puts forth the idea, that since women are primarily responsible for cooking and thus for firewood collection, they have to spend time in forest. This obligation of practice has increased women’s knowledge of nature. Leach (1991:12) espoused that women’s relationship with their environment, just like that of men, is shaped by specific social and economic processes, and that their interests and opportunities change as an outcome of their relations with men and with each other (see also Burley 2001). Other factors such as caste (Gupte 2004), access to particular types of knowledge, spaces and resources (Rocheleau et al. 1996; Rocheleau and Edmunds 1997; Reed 2000; Freidberg 2001) can equally determine the relationship between women and the environment.

Despite the fact that essentialist ecofeminism and materialist/post-structural feminism are based on different assumptions, there is a common ground regarding women’s environmental knowledge. Both of these positions put forth the idea that women’s

knowledge is valid and important and that their participation in environmental decision-making needs to be safeguarded. This is particularly the case in developing countries, where women face continued domination and oppression by men.

Contrary to both essentialist ecofeminism and material/post-structural feminism, Colonial/Third-world feminism emphasizes the urgent need to decode the essentialism of both 'women' and 'culture'. Post-colonial/Third-world feminism (Mohanty 1991,1998; Gururani 2002b; Grewal 2001; Nesiah 2003; Pyle 2006) critiqued the implicit assumptions to see power in binary terms (Western versus Third-world). They pointed out the universal tendency (of colonialization) and of overgeneralization (of white concerns) implicit in the assumptions putting the 'western women' as the reference for modern (Mohanty 1991, 1998). Contrasted to the (white) western women, the third world' women were naturally portrayed as victimized, in the grip of their outdated cultures, and thus needed to be saved.

Post colonial feminism asserts that development is not necessarily linear, power structures are not static and relations are liable to change. Also, women in the Third-world are not always passive receptors, but can actively shape and negotiate their social world. This emphasis requires a close look on how such negotiations, as well as the associated resistance, are taking place at the given context. At this point, gender theories can provide a framework to understand processes of the (re)definition of men and women as categories, as well as the (re)organization of social relations, where power is both contested and reproduced.

3.2 Gender theories

While feminism rests on the notion of biological sex (of masculinities and femininities), gender theories imply the social and cultural construction of sex, which is investigated in strict opposition to any kind of naturalization. This indicates that categories of men and women are social constructions, which are formed out of norms, expectations, and laden common-sense of what it means to be a man or a woman in a particular space and time (Gildemeister 2004 in Flick et al. 2004). Thus, the social construction of gender is achieved by obvious and subtle (power) relations that assign females and males to social roles and social spheres where they learn being women and men respectively (Burely 2001:165). While the gender approach offers the possibility to analyse the social construction of sex and the resulting similarities and differences due to such socially constructed practices, its main strength is that it seeks to uncover the power differential between them and the inequalities that the system of gender generates. Gender studies do not necessarily claim for the equal weight of both sexes (as feminism does), but examine the unequal distribution of power.

Thus, gender theories focus on questions of organization and performance of social relationships. These are understood as a relation of power and thus as a process, not as a state. As Butler (1990 in Malson and Swann 2003) has argued, gender is

performed by subjects and it is only through this performance that gender takes on any meaning at all. Yet, these performances are imbued with power, which brings forth the differentiation among the performers. Butler's work has put forth the idea that gender is not static but rather is constantly (re)defined and contested through the contexts within which it is invoked.

Pratt and Hanson (1994 in Naples 2009) argue that place is one context within which gender is constructed. Such constructions are related with material and symbolic meaning of places that were significant in shaping women's employment and accessibility. Furthermore, the qualities seen as male or female in a specific society may be different, or vary in different social class or ethnic groups or even families. Culture plays an important role in the choice of life options, and integrates with economic explanation. Concepts such as "women's work" or "men's work" are powerful in making jobs seem "suitable" or "unsuitable" for females and males; and strongly contribute to the "sex-labelling" of any process or domain, e.g. occupation (Acker 1990). In this way, concepts act as symbolic boundaries. Further, structural boundaries reinforce conceptual boundaries such as rules prohibiting men and women from doing work deemed to be fit only for the other. (Epstein 2006 in Chafetz 2006:46).

However, the work of Butler, Pratt and Hanson fail to take note that the context/place is not a static background for social relations, but that is constituted by social relations that can change. As illustrated by Gururani (2002a,b) in a case study in the Himalayas, gender roles and social relations are in constant reconfiguration. She states that social relations constitute environments and are transformed through daily interactions of people, forest and work. These interactions provide an excellent foundation from which to examine the mutual constitution of social relations and environments. She asserts the idea that gender relations are shifting.

Likewise, Nightingale (2006) emphasizes gender as a continual process of producing as well as deconstructing social relations. Based on a case study of community forestry in Nepal, she argues that gender and other constructs, such as caste, are continually constituted and contested. She provides an explicit focus on how gender and environment are mutually constituted. She conceptualizes gender as a process in a context by which power relations are performed and resisted.

While gender theories highlight the importance of social (power) relations between men and women in everyday practices, they do not explain how human actions involve persisting (and changing) patterns of power relations. Theories relating agency and structure can help to better understand the nature and the use of power in society, and the ways in which different social groups attempt to negotiate and challenge prevailing power relations.

3.3 Theories relating agency and structure

There is a long-standing scientific debate regarding the relative importance of human agency and of social organization of 'structures' as causes of societal change. The concepts of agency and structure refer respectively to peoples' capacities to act within a social context, and the basic organizational features of particular societies. At stake is the question of whether human actions are primarily the product of individual volition or of structures that surround them.

Scholars working with the concept of structure put forth the idea that there are two foci of analysis: that individuals' attitudes and behaviours are shaped in varying ways and to varying extents by the position that person holds in a social structure, and that the properties and trajectories of social structures themselves need to be analyzed. They espouse the notion that structures act as factors of causality and can vary from social class, religion, gender, ethnicity, tacit norms and customs (Ojha et al. 2009). Human being's roles within this process are merely limited to act as 'bearers' of the structures. Thus, humans do not make actions themselves, but under circumstances directly encountered, given or transmitted by, or within specific structures indicating that structures determine human actions (Meyer and Jepperson 2000; Fuchs 2001; Lopez and Scott 2002).

Scholars working with the concept of agency, on the other hand, focus on the capacity of individual humans to act and make their own choices (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Roy Chowdhury and Turner 2006; Banjade et al. 2006; Fudge 2009). The concept of agency conveys volitional, purposive and intentional aspects of human activity; that generate power. Thus, an agency perspective provides a more optimistic outlook on the humans' ability to bring about social change (Elsop et al. 2006:236).

Over the years, this abstract polarity between agency and structure was critiqued resulting into an increased understanding that both agency and structure cannot be understood in isolation from each other. Giddens's theory of 'structuration' posits that it avoids structural determinism through constant emphasis on the interplay of structure and agency (Giddens 1984 in Chouinard 1997). It offers a broader conception of social power as the outcome of struggle over allocative and authoritative resources (i.e., material wealth and decision-making power) and recognizes the significance of spatial organization in the structuration of social relations. Despite its loopholes (see Gregson 1986), structuration theory has pointed out the need to take a co-deterministic approach and understand the roles of structure and agency as complementary in mediating social actions (Dalton 2004; Gustafsson-Larsson et al. 2007; Hitlin and Elder 2007; Hitlin and Long 2009).

Women's participation in natural resource management, and forestry in particular is dominated by empirical studies focusing on the role of structures on limiting women's participation (Lama and Buchy 2002; Agarwal 2001a; Gupte 2004). Additionally, these

studies take an institutional perspective and limit the exploration of women's participation in formalized structures such as the executive committee and the general assembly (Rai and Buchy 2004; Acharya 2006). Such structure-laden perspectives, while helping to identify the factors that constrain women's participation, tend to fall into the trap of understanding structure as an immutable and static context. As such, the everyday gender and power relations and informal ways in which the resource actually is used and managed are neglected and remain invisible. Moreover, while structural resources are often critical, they are not always sufficient to lead to change (Kabeer 2001; Arora-Jonsson 2008b). This requires a closer investigation of agency in understanding community forestry as well as of exploring women's participation.

3.4 Women's participation as a gendered process with interplay of agency and structure

This thesis uses a mix of theoretical approaches such as post-colonial feminism, gender and structuration to analyze women's participation. This mix of theoretical concepts conceives women's participation as a gendered process that involves an on-going interplay of agency and structure. While both post-colonial feminism and gender theories stipulate the need of understanding the social context to analyze power relations, this thesis adopts gender theories for its emphasis on unequal social processes, but not only on women per se. Indeed, this thesis neither sees men and women as two opposite monolithic blocs, nor does it consider that active women's participation is possible only after the retreat of men. Rather, this thesis attempts to elucidate the processes through which different actors like women (and also men) effect social change and shape the means to participate in community forest management.

Thus, this thesis investigates women's participation as a gendered process that involves a continuous interplay of agency and structure. Using this theoretical lens, the aim is to signal that the interplay of power structures are not static at a given context, that relationships are being forged and changed in an on-going and open process, all and that new windows of opportunities can open at any time. Understanding women's modes of asserting their rights, their resistance as well as their reproduction of structures requires a nuanced approach. This will allow a better understanding about how women play out their concerns, in institutional structures and in informal settings. Thus, the use of structuration theory within a gendered process will provide a closer look at the micro-social processes taking place within and outside the executive committee or the general assembly. It will help in understanding how women confronted challenges, reproduced orders, and contributed to the practice and discourse of participation in resource management. This will illustrate different dimensions of agency as well as structures that can account for variability and change in women's capacities for critical interventions in participation, taking into account the diverse contexts within which women act, as well as the constraints that they continually face. Ultimately this type of theoretical perspective suggests how diverse social practices with different

logics may be at play, producing largely invisible tensions that can have significant impacts on women's participation..

4 Methods

This chapter first explains the research strategy of the dissertation. Then it elaborates the research methods to collect and analyze data.

4.1 Research strategy: a multiple case study

Case study research (Yin 2003) was selected as a research strategy because it allows systematic investigation while maintaining a contextually rich understanding of a phenomenon (Yin 2003; Flyvbjerg 2006; Baxter and Jack 2008). This is the most suitable strategy for this study because the issue was 'women's participation in forest management' but this issue could not be adequately understood outside the context-effects of men's outmigration in specific CFUG. Case study approach, which has been widely used in exploring forest management, has demonstrated its ability to capture the complexities involved (Banjade and Ojha 2005; Muhammad et al. 2009).

Given the limited empirical research that addresses the effects of men's outmigration on women's participation in forest management, part of this study is exploratory. The aim was to identify the key effects of men's outmigration on women's participation. The other part employs explanatory approaches to systematically explain the social mechanisms that can affect women's participation in community forest management, with an explicit focus on men's outmigration, but not limited to it. To ensure a minimum diversity in the empirical material, and to allow for cross-case comparisons, this study used a multiple case study approach (Baxter and Jack 2008).

Local social norms and ethical concerns were taken into consideration (Scrimshaw 1990) and empirical data were collected in the field, using a mixture of qualitative and quantitative methods. A qualitative approach emphasizes 'lived experiences', locates the meanings, perception and assumptions of people, and connects these to the social world around them (Miles and Huberman 1994:10). A quantitative approach emphasizes measuring variables and testing hypotheses that are linked to general causal explanation (Neuman 2006:151). The mix of qualitative and quantitative approach is designed to identify as much of the full spectrum of complexity associated with women's participation in forest management, as possible (Chaseling 2000; Baxter and Jack 2008).

The analysis builds on compounding the insights and interpretations obtained from in-depth interviews, focus group discussions, participant observations and a quantitative survey. This mix of methods also allows enhancing the validity and reliability of results (Patton 1990; Yin 2003; Flyvbjerg 2006). Since the research was conducted after building a good rapport at research sites, the data was further validated through inputs from key experts of different organizations. Further, the interviews and focus group discussions were not only used for data collection, but also for joint analysis and validation of previous results.

The case presented in this thesis can not be generalized to a population without considering the similarities of context, but may be used to guide research to increase understanding of the associated complexity of women's participation in natural resource management.

4.2 Research design: an iterative process

The process of collecting and analyzing data was kept reflexive and iterative. The data collected at one step were analyzed, allowing the researcher to fine-tune the next data collection step (see Table 1). As a first step, the existing literature on participatory forest management was analyzed with an explicit focus on women's participation. This helped obtaining an enhanced understanding of the current status of community forest management and associated governance challenges (Paper I). While women's participation emerged as a challenge, the lack of previous studies investigating the impacts of men's outmigration on women's participation in forest management also became evident. This necessitated conducting an exploratory study to assess the effects of men's outmigration on women's participation.

As a second step, the exploratory study was conducted in two CFUGs in Kavre district: "Chande Majuwa" and "Katunje Pakha". This study confirmed the role of men's outmigration in women's participation and allowed to identify a number of areas that are strongly affected when a husband outmigrates (Paper II). This study also helped to extend the set of questions used in a third step, where the effect of men's outmigration on women's participation in community forest management was assessed using a survey. This survey was conducted in two CFUGs in Ramechhap district: "Majuwa Bhumithan" and "Dugursing Hup" (Paper III). Undertaking the survey in Ramechhap ensured an adequate sample size and some variation in the practices that women adopt for participating in community forest management.

While both the exploratory study and the survey indicated an association between men's outmigration and women's increased participation in community forest management, the lack of qualitative information allowing to understand the social processes and mechanisms through which women's participate in community forest management, within the dynamic social context (as men's outmigration) became evident. To collect information on this, informal discussions were held with women and men both, as well as focus group discussions with women. This allowed to better capture the women's perspective on their involvement in community forestry, the associated challenges the women face and the strategies they use to tackle such challenges (Paper IV).

Table 1: Overview of the steps in data collection and analysis

Steps in the process	Details of collected data	Details of methods used for collecting data	Where	When	By whom
Literature review	Review of global changes in participatory policies and its effects on forest management in Nepal. Review of community forestry from sustainable livelihoods and governance framework. Review of existing challenges, with an explicit focus on women's participation in community forest management. Review of effects of men's outmigration on women's role and position in diverse settings and programmes across the globe.	Review and analysis of existing theoretical, methodological and policy related documents, journals, policy briefs etc. on women, natural resource management, community forestry, governance, migration etc	Austria and Nepal	October 2006 - September 2007	Researcher
Exploratory survey	Effect of men's outmigration on women's participation in community forest management. Factors that can mediate the effects of men's outmigration on women's participation	Three focus group discussion with 30 women. Informal discussion with men 5 key informant interview Review of the operational plan, constitution and minutes executive committee meetings of each CFUG.	"Chande Majuwa" and "Katunje Pakha" CFUGs in Kavre district	November 2007 – January 2008	Researcher, 2 research assistant, and 4 local facilitators
Questionnaire Survey	Women's attendance at General Assembly Women's influence in forest decisions Women's representation in executive committee Women's information and social networks Mediating factors for women's participation during men's outmigration	Personal interviews with 186 women using a questionnaire Review of the operational plan, constitution and minutes of executive committee meetings in each CFUG	"Majuwa Bhumithan" and "Dugursing Hup" CFUGs in Ramechhap district	February 2008 to April 2008	
In-depth interviews	Adaptation mechanisms of left-behind women due to men's outmigration Women's individual perception about their participation in community forest management.	Individual interviews with 30 women 10 key informant interviews Informal discussions with men		December 2008	Researcher and 1 research assistant
Focus group discussions	Women's collective achievements and challenges in community forest management Sharing validation of results obtained from questionnaire survey and in-depth interviews.	Five focus groups with 40 women		January 2009	Researcher, 1 research assistant, and 2 local facilitators

4.3 Start of fieldwork

4.3.1 Site selection

The process to select the research sites was cumbersome and time-consuming. Given the inadequate and scanty data on migration in Nepal, it was difficult to reliably identify districts with a high share of men who outmigrate. The Central Bureau of Statistics and NLSS have published data on international outmigrants and inmigrants at district level (CBS 2001; NLSS 2004). However, this data does not include seasonal or periodic outmigrants from a district. Birth registration is not yet comprehensively applied in Nepal, adding to the uncertainty attached to official statistical data.

Thus, a judgment-based protocol was developed to select suitable research sites. The criteria employed in the initial selection process focused primarily on those districts with a high rate of outmigrating men and with widespread community forest management. An initial interaction with key personnel from different organizations working in forest and migration issues in Kathamndu indicated potential research districts. Practical considerations, such as existing contacts, the willingness of stakeholders to participate, accessibility, and personal safety (given the Maoist insurgency) were also included in the protocol. The protocol allowed to identify two suitable districts: Kavre and Ramechhap.

In both districts, interviews with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level), and national as well as international non-government organizations allowed to short-list six CFUGs. All these six CFUG had a high rate of men outmigrating, a high level of women's participation, good access to markets, good forest condition and similar ethnic-composition. These CFUGs were then visited to verify the information. From the resulting list, two CFUGs were randomly selected from each district: "Chande Majuwa" and "Katunje Pakha" in Kavre district, and "Majuwa Bhumithan" (Majuwa) and "Dugursingh Hup" (Dugur) in Ramechhap district.

4.3.2 Selection and orientation of research assistants

The research assistants and local facilitators were recruited differently. Two research assistants, one woman with a degree in forestry, and one man with a degree in social science were recruited. Training them took four days and allowed to convey the research objectives, and explain the methods to collect data. Four local facilitators (1 man and 3 women) were recruited in each CFUG. Having women on the team allowed to build a friendly relationship and earn trust with the interviewed women. Having men on the team also helped in liaising with village men and gaining their support for the study.

4.3.3 Pre-testing the questionnaire

The questionnaire was designed in English and translated into Nepali, which is the most commonly used language in Nepal. The questionnaire was pre-tested with 20 interviewees in Katunje CFUG by both the researcher and the research assistants. The pre-test allowed to know the time it took to fill out the questionnaires, to check the flow and sequencing of questions. Notes were taken where the respondents found the questions obscure, repetitive or irritating. The questionnaire was then revised accordingly.

4.4 Data collection

Data were collected using both qualitative and quantitative methods in different phases between November 2007 and January 2009 (see Table 1). Face-to-face questionnaire survey, in-depth interviews and focus group discussions were used as the main methods to collect data. Additionally, interviews with key informants, informal discussions and participant observations were also conducted. Sampling at all levels of this study can be described as purposive (Neuman 2006). Interviewees are sampled with snowball sampling method (Neuman 2006).

The face-to-face questionnaire survey was administered to grasp factors that influence women's participation in forest management. Respondent's responses were solicited through multiple choice, numeric open-end and text open-end questions. The survey was used to test the knowledge derived from the literature review in a rigorous manner, and to assess causal relationships (Neuman 2006). While questionnaire surveys tend to be strong on reliability, the artificiality of the format puts a strain on validity (Dudley 2005).

In-depth interviews allowed a fuller understanding of the interviewee's perspective on the investigated topic with an opportunity to probe or ask follow-up questions (Kvale 1996; Berg 2009). The interview approach was personal and mostly conducted in interviewee's home.

While getting an idea of individual women's reality was possible using in-depth interviews, a collective understanding of challenges and achievements that these women faced in community forest management was also essential. Focus group discussions (Berg 2009:108) were conducted to obtain conscious, semiconscious, and unconscious perceptions and socio-cultural characteristics and processes among women. Thus, they elucidated both similarities and differences women have as a group.

Additionally, interviews with key informants such as the school teacher, forest rangers, local tea-shop owners, men and women executive committees were conducted. Informal discussions and participant observations in local settings also added to the validity of collected data.

Personal consent was obtained from each interviewee prior to their participation in survey, interviews and focus group discussions. Interviews and survey mostly took place in interviewee's homes, whereas focus group discussions were held at a convenient public place, which was suggested by the participants. All communication took place in Nepali language.

Data obtained from qualitative and quantitative methods were triangulated to counteract threats to validity (Kelle and Erzberger 2004; Berg 2009). These threats were identified each using several methods (see Fig. 2). Each interview was conducted by two research assistants so that they could compare notes and discuss their impressions afterwards. Each interview was also tape recorded. The results of the survey and interviews were then related to each other and further, cross-checked, if possible, with secondary information obtained from the minutes of executive committee meetings, constitutions and operational plans of the CFUG. Finally, the results were shared during focus group discussions to clarify the interpretation, and seek new or additional perspectives on an issue.

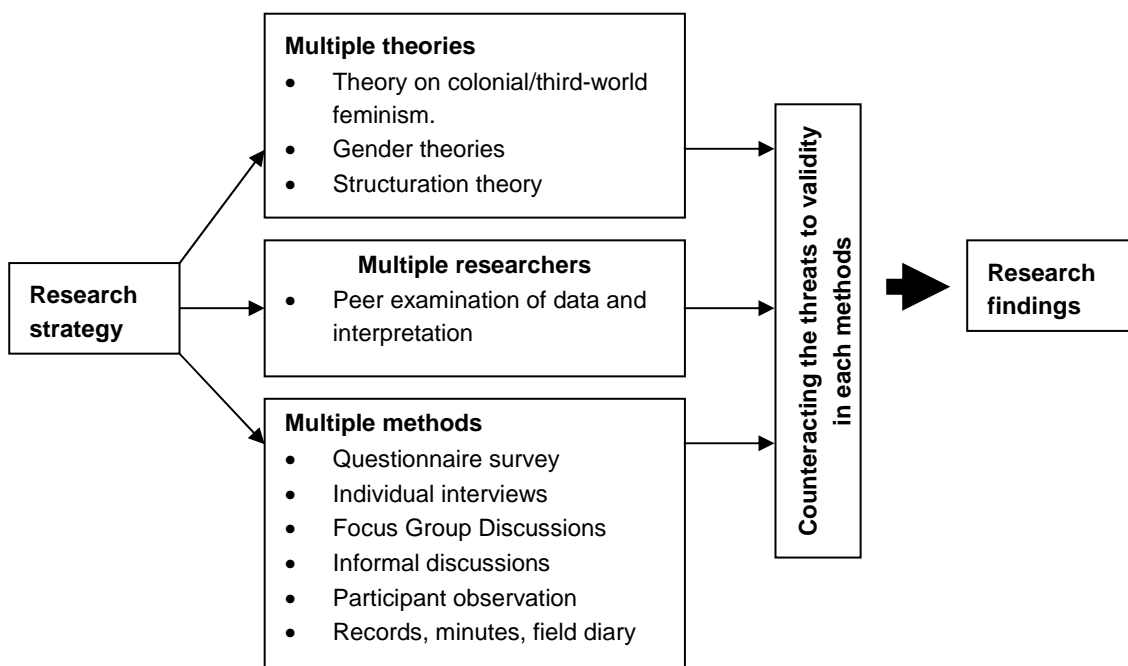


Figure 2: Data collection and triangulation techniques (Adapted from Berg 2009)

4.5 Data analysis

Quantitative data from survey was analyzed using statistical package SPSS 16.0 (Norušis 2008). Descriptive statistics such as percentage, mean, standard deviations, etc. were calculated to characterise the surveyed population. Chi-square and ordered logit regression were used to test the causal relationships between men's outmigration and women's participation in community forest management.

Qualitative data from in-depth interviews, focus group discussions, key informants, informal discussion, participant observation and field notes were transcribed, translated into English and analyzed using a content analysis approach (Berg 2009). Content analysis involves developing ideas about the information found in various categories; seeking emerging patterns based on the meanings that seem to be conveyed. The data was analysed to understand the women's view of their social world and the differences between the women's views. Generic labels or pseudonyms were used to identify communities and individuals, wherever required. Literature from similar studies was consulted to assess the reliability of results.

5 Results: Summary of the papers

This chapter is a summary of the four papers compiled in Part B of this dissertation. A brief description of each paper's purpose, main findings and implications allow an overview of the results based on the empirical material.

5.1 Paper I - Development and status of community forestry governance in Nepal

This paper has been published in proceeding of the conference: National Convention of Foresters: 'Forestry in a Climate of Change', held on November 5-9, 2008 in Reno-Tahoe, Nevada, USA.

This paper investigates the trajectory of community forestry programme and provides an analysis of its achievements and pitfalls. Community forestry programme is widely reckoned as a successful forest programme, having improved the forests' condition and user's livelihood (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Yet, challenges of empowering of women and disadvantaged groups remain, and successes are not uniform throughout the country (Agarwal 2001b). Both the challenges and achievements are part of a process, constantly influenced and mediated through both external (such as market, policy etc.) and internal (such as differential powers within a community) institutions. An understanding of these processes is essential to understand the complexity associated with managing community forests. Contributing to this understanding, this paper addressed the research question: what is the current status of community forest governance in Nepal?

Data were gathered from research articles, grey literature, and policy reports on participatory policies with an explicit focus on community forestry in Nepal. Based on a review of literature, this paper analyzes how external and internal institutions associated with community forest management have led to an adaptive process.

The findings show the interplay of global policies and markets with national policies on forest management in Nepal. National and international pressures were instrumental in shaping the forest management paradigm in Nepal. The early mode of tenured privatization saw a high degree of indigenous forest management with well-balanced goals of fulfilling the need for forest products and conserving forests. However, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people, transforming forests into an open-access common resource. As with Hardin's Tragedy of Commons (Hardin 1968), the deforestation and degradation of Nepalese forests led to regional flood disasters in the lower plains, giving rise to the Theory of Himalayan Environmental Degradation/Doom (Eckolm 1975). This occurred at a time when the international policy dialogue took a swing towards implementing participatory programmes for forest conservation (FAO 1978). As a result of the international donor

agencies' alarmist view, the Nepal government was accommodative to accept that without the users' participation, the government agencies were not able to sustainably manage the forest resources. Slowly policies became more favourable to community participation, and community forestry got momentum. Within two decades of predicted ecological doom, Nepal has established itself as a global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001).

The analysis indicates the ongoing process underlying the community forestry programme and highlights major setbacks, related to issues such as gender, caste and class. In particular, it draws its experience from the Nepal Swiss Community Forestry Project (NSCFP). The community forestry programme shows that Nepal has excellent evidence indicating a dramatic change in the status of forests: from severe deforestation to extensive regeneration within two decades. Still, the challenges are unfolding in nature. Moreover, challenges are at play all the times. The first generational challenge in community forestry was to convince and involve local people in community forest management, to gain their trust (Shrestha and Britt, 1998). While this has been fairly well accomplished, a set of other issues such as class, caste and gender discrimination within collective action became more apparent. These challenges have been met with success at some places, while at other places they remain grave. Learning from these encounters continues to enrich the policies and practice, through adapting existing legislation and developing novel rules and regulations.

Taking the standpoint of systemic learning and adaptive governance, this paper identifies the potential of community forestry to achieve collective change and sustainable forest management. Achievements till date have reflected the great potential of community forestry in achieving good forest governance, sustainable forest management and livelihood for the forest dependant communities of Nepal. Some of the crucial factors for the success of community forestry are the dynamic and adaptive nature of the programme, allowing a restructuring and reformulation of policies, and the devolution of authority to local communities. This mix of factors motivated local communities to participate in a transformed scenario and realise its potential benefits. Building on adaptive learning and transformative governance, community forestry reaffirms the fact that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

5.2 Paper II - In the absence of their men: Women and forest management in the Mid-hills of Nepal

This paper has been published in: K. Aravossis, C.A. Brebbia, N. Gomez 2008 (eds.). *Environmental Economics and Investment Assessment II*. Southampton, WIT Press, pp. 295-304.

While the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women's participation and decision-making into such "participatory" processes has remained mostly rhetoric (Agarwal 2001; Buchy and Subba 2003). Indeed, evidence suggests that women's involvement in community forestry has mostly been "passive": women's household entitlement to membership in community forest user groups (Lachapelle et al. 2004; Upadhyay 2005). As such, women are often reported as simply position holders, without the possibility to influence decision-making (Lama and Buchy 2002).

Concomitantly, an increasing trend of men's outmigration is widely observed in the rural communities in Mid-hills of Nepal (CBS 2001; KC 2004). Existing studies indicate that men's outmigration can lead to changes in social relations, affecting women (Hadi 1999; Hadi 2001; Kaspar 2006). Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper presents an exploratory research that analyzes the effect of changing modes of women's participation. Specifically, this paper explores the research question: In what ways does men's outmigration affect women's participation in the management of the community forest?

Data were collected using focus group discussions, individual interviews and participant observation from two community forest user groups in Kavre district. The main issues discussed were the factors that allowed or prevented women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in community forest management. Furthermore, informal discussions with men were conducted to assess their perception of women's involvement in community forest management. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the community forest user groups.

The findings point out that women's active participation in community forestry are brought forth by a variety of factors, including men's outmigration. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. through being involved in a savings group – or participation in a women's rights programme, increases the women's confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men's support, women are willing to take on new challenges and seize the opportunities that can arise from men's outmigration. The extent to which left-behind women become actively engaged in community forest management seems to depend to a large part on whether they are in a nuclear family and whether they are unsatisfied with the information about

the community forest they get from their social networks. Moreover, women's active participation in community forest management led to increased forest protection, improved forest regeneration and well-regulated supply of forest products.

This paper adds to the current literature of participation by explaining how different factors can affect women's increasing participation in community forest management. While these findings are consistent with the earlier studies (Kabeer 2001; Agarwal 2001a,b; Buchy and Subba 2003; Agarwal 2009), one of the important contributions of this paper is to point out that socio-cultural contexts are not static. Rather they undergo continuous negotiations and adaptations under different influences. Men's outmigration is one of the factors potentially affecting women's participation in the public sphere of community forest management. This paper proposes the need of further research to identify the different circumstances that can arise due to men's outmigration in a social setting, and the resulting impact in women's participation in community forest management.

5.3 Paper III - Outmigrating men: A window of opportunity for women's participation in community forestry?

The paper has been submitted to the *Scandinavian Journal of Forest Research*.

The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (CBS 2001; NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies like Nepal where men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. Empirical evidence also suggests that the wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions (Giri et al. 2008). This paper thus addresses the following question: What factors affect the extent to which women participate in the management of the community forest during men's outmigration?

Data were collected using a questionnaire survey, in-depth interviews and focus group discussions with women from two CFUGs in Ramechhap district. The questionnaire survey was conducted with women and included questions on women's participation in silvicultural activities, attendance at assemblies, whether the women voiced their views

at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. At a later stage of data collection, to better understand how husband's outmigration affected their wives, in-depth interviews with left-behind women were conducted to elicit the personal experiences in coping with their husband's outmigration.

This paper statistically tests whether men's outmigration provides a 'window of opportunity' to increase women's participation in community forest management. The significance of different factors on women's participation during men's outmigration was tested using Chi-square tests as well as an ordered logit regression. Additional insights were derived from interviews and group discussions.

The findings indicate that men's outmigration can open a 'window of opportunity' for women to actively participate in community forest management. Left-behind women were significantly more likely to attend general assemblies and voice their opinions during the assemblies, compared to women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring of social roles and responsibilities both within households and within community institutions (Zacharia and Ranjan 2001; Karki and Bhattarai 2004). However, the extent to which outmigration represents an opportunity depends on family type (extended or nuclear) and composition (presence of adult men or older women).

Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions. These findings are consistent with the earlier studies (Hadi 2001; Kaspar 2006). Moreover, this study extends the previous research on migration for its investigation on women's changed roles in public sphere of community forestry.

The other contribution of this paper is its illustration of the interplay of changing social context (men's outmigration) with the internal and external institutions, and its impact on women's participation in community forest management. Due to the widespread outmigration of men, the internal institutions (such as men members of executive committee) can display a higher level of understanding that adjustments need to be made and thus, may be more willing to accept untraditional behaviour by left-behind women. This acceptance can be reinforced by the constant pressure provided by external institutions (such as Department of Forest, I/NGOs) to include women in community forest management. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling women to engage in the public sphere of community forest management. Also,

this paper confirms to the need of supportive policy measures to sustain the positive change with progressive redefinition of social structures and norms.

5.4 Paper IV - Nepali women using community forestry as a platform for social change

The paper has been submitted to the journal *Society & Natural Resources*.

The paper has been through the first review and the editor has indicated that it would be accepted for publication after revision. A revised version has been resubmitted.

Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups. These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active participation in the decision-making mechanisms within the community forest user group (Agarwal 2001a,b; Lama and Buchy 2002). While these studies focus on exclusionary structures to explain how and why women are marginalized in community forest management, this paper focus on social change processes, i.e. whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. This paper focuses on addressing following research question: How do women shape their social role in the public sphere so as to increase their participation in community forest management?

This paper draws on data gathered from two community forest user groups in Ramechhap district, using a mix of quantitative and qualitative methods. Face-to-face questionnaire survey was conducted to assess women's understanding of the operational plan or the roles and responsibilities of the users as well as to analyze the extent to which women were consulted and whether women attend meetings and speak up their concerns. The survey included a range of questions regarding the respondent's. Later, in-depth interviews were solicited to obtain the subjective views of the respondent's experiences, attitudes, achievements and challenges regarding her participation in community forestry. Furthermore, focus group discussions were held to elicit women's collective perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and the strategies women use to tackle these challenges. Data were analyzed using a content analysis approach (Berg 2009) within the theoretical construct of gender as a process (Nightingale 2006).

The findings indicate that women held spurious perceptions about the organization of community forestry and they were not fully aware of their rights in decision-making processes. They also perceived themselves unqualified to become the members of

executive committee. These findings are consistent with the previous studies (Agarwal 2001a,b; Lama and Buchy 2002).

However, this study departs from the previous studies in approaching women as agents of change instead of passive recipients of discriminating structures. It suggests different ways through which women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. Evidence of the processes of change can be found in incidents that might seem minor, but through the subtle microsocial acts, women contest the dominant social norms, experiment with alternative behaviours and increasingly assert their rights. Thus, this paper provides an enhanced understanding of women's agency, elucidated the social dynamics behind the formalities, and of the role of gender in community participation.

This paper also proposes that to gain such an understanding, there is a need to understand participation as a process related outcome and not a outcome-orientated initiative that can be captured in a snap-shot approach. Women's participation in public settings offered by community forest management is a new situation, where both men and women are unsure what to make of this new situation, what meaning it has and how it will be used by various parties. The situation is thus contested, being seen by some as an opportunity to experiment with a new situation while it is opposed by others. This ambivalence will involve a process of trial and error, of success and setbacks. Therefore, a nuanced approach to data allows to spot both the achievements and challenges for women's participation. This is crucial to capture the experimentation process, by identifying, supporting and/or rectifying approaches that could lead to transformative participation and equity in decision-making.

Additionally, this paper suggests the need of employing a careful mix of research methods to capture the complex dynamics of women's participation in community forestry. Whilst the results from the survey signalled to women's exclusion in community forestry, women's perceptions as voiced in the interviews and group discussions modify this interpretation towards women as agents of change. Likewise, this paper contributes to identifying and suggesting qualitative indicators (such as change in perceptions, changes in acceptance level by community etc.) to assess change in women's participation in community forest management, along with more-commonly used quantitative indicators.

6 Discussion and perspectives

6.1 Summary of the present dissertation

Women's inclusion and influence in participatory programmes like community forestry is considered indispensable to enhance both ecological and social sustainability in Nepal. Previous studies have identified a range of formal structures and processes that exclude women's participation (Agarwal 2001a; Buchy and Subba 2003). However, these studies do not provide a complete picture of the situation for two reasons.

Firstly, the social contexts where rural communities live tend to be portrayed as static in previous studies (Mohanty 1998; Gururani 2002b). However, rural communities particularly in Nepal, live in a state of flux, often characterized by unruly markets (Sugden 2009), instable politics (Taras 2006) and changing demography (CBS 2001; NIDS 2007). Previous studies have not been sufficiently attentive to the changing social context of rural communities and its associated impact on their participation in community forest management. In exploring the changing social context of rural communities in Nepal, the present dissertation focused on the effects of men's outmigration on women's participation in community forest management.

Secondly, when examining the structures/processes that affect women's participation in community forest management, previous research has particularly focused on women's position and roles within formal institutions. Thus, any dynamics of negotiation, contestation, and resistance beyond the formalized settings have been ignored. Using gender as a process (Nightingale 2006) involving reiterative interactions between agency and structure, this thesis investigated how women during men's outmigration can exercise their influences in community forest management, while being conditioned by structures. Thus, this thesis provides valuable insights on the conditions/processes that can lead to increasing women's participation in community forest.

Both exploratory and explanatory approach was used to understand the dynamics of men's outmigration on women's participation in community forest management. Data were collected and analyzed using different qualitative and quantitative methods. This mix of approaches and methods ensured obtaining valid and reliable results.

Based on the results from paper I-IV, the following conclusions are drawn:

- Men's outmigration can provide opportunities for women's participation in community forest management. However, the extent to which women take such opportunity is mediated by various factors.
- Women can exercise agency despite structures limiting their participation in community forest management.
- Participation is to be understood as an adaptive process of governance and learning, and not a hurried outcome limited to easily-measured outcomes.

These conclusions are used to broaden the discussion of women's participation in community forest management through potential implications. By emphasizing the multidimensionality of women's participation, this dissertation advocates the importance of applying various approaches and tools to conceptualizing and measuring participation. It also emphasizes the crucial role that formal and informal institutions play in women's participation and sketch out theoretical nuances and methods of examining such institutions.

6.2 Theoretical implications

The findings of this study provide a robust case indicating that a range of theories can provide complementary perspectives allowing for a nuanced analysis of women's participation in community forest management. Combining different theories is important because many of the observed outcomes in this thesis could be un- or undervalued or stereotyped, if were analyzed from a single theory.

Feminist/eco-feminist theories argue for positioning and strengthening of 'women-agenda' into development programmes given to the richness of women's knowledge and close association to nature (Shiva 1989; Sargission 2001; Shantz 2002; Rogers and Shutten 2004). They thus often argue to incorporate women-agenda by proposing some change in structural measures such as representational quota etc. As the paper I states, the community forestry policies in Nepal have been continually adapted, if investigated in this direction. Women's knowledge and role in forest management have been well-identified by labelling women as the "primary users of forest". Furthermore the expected share of women in decision-making bodies has been raised. Other measures such as including both male and female's name as the representative head of households in the forest constitution have also been implemented.

Such representational measures can be thought as a starting point to address the persisting disproportionate representation and structural inequalities between men and women in community forestry institutions. Indeed, as the Feminist theories propound, this need of incorporating women's issues can provide an entry point to recognize and secure women's right to spaces of decision-making in community forest management. This push from feminist standpoint is important particularly for the present context of rural Nepal, where structural spaces between men and women are perceived to be different and are often imbued with "common-sense" power relations (paper IV). Indeed, such common-sense is taken for granted and thus the fundamental premises or ideology on which these seemingly common power relations are based are rarely questioned (Arora-Jonsson 2008b).

To provide a sense of alternatives, it is necessary to have spaces that give the possibility to view the relations in a different setting. Particularly in the case of forest management where forest decisions directly affect women (Tinker 1994; Agarwal 2009), providing women's entry into decision-making forums, can surely indicate an alternative

sphere that gives possibility to address their concerns and influence decision-making. Paper II documents that the effective forest management under women's leadership earned them respect and a sense of their own capability, which they lacked before. Paper IV also confirms that women, while experimenting with the alternative sphere of decision-making (provided by community forestry) can add to new knowledge and learning process that can also break the commonly assumed behaviours and mould new expectations. In a series of such subtle changes, women might then be able to increase their influence in the decisions governing the management of the community forest. Empirical studies at other parts of globe have also identified the effectiveness of such measures to build up a critical mass of women (Tinker 2004; Stockemer 2007; Kudva and Mishra 2008; Jones 2009).

Thus, before adopting a theoretical stance of feminist/eco-feminist theories, a cautious check about its assumptions and whether those assumptions fit to the research context is required. Despite women being the agenda of most (eco)-feminist studies, the very rationale that feminism started to counteract the dominant and discriminating ("androcentric") viewpoints should not be forgotten. Thus, the underlying principle of feminism is not men against women, but the differential power relations between men and women that led to discriminatory outcomes (Chafetz, 2006). In the pursuit of working against women's discrimination by men, feminist theories need to decode the social system, unravel the common-sense and analyze the power relations that lead to discrimination (Mohanty 1998; Gururani 2002b; Arora-Jonsson 2008b). Thus, it might be too simplistic and fallible to assume that all women are similar and that they are always discriminated to men without a proper analysis of the social context where discrimination takes place. Also, the extent to which a token of women representatives are expected to unanimously bring in all woman diversities, always work for the benefit of other women and never discriminate against women is questionable.

The findings of paper II, III and IV illustrate this complexity where women as a unified category face similar challenges in forest management and yet, the extent of challenges within women can vary due to several factors. In particular, paper III identifies household type, presence of in-laws as the major factors that can vary the extent of left-behind women's participation in community forest management. Previous studies have also indicated that women's knowledge and participation in forest management is contingent on different factors, such as class, caste, position in a family (Agrawal 1994; Jeffery et al. 1998; Shrestha 1999; Chhetri 2001; Gupte 2004).

There is thus a need to unravel the differential power relations that discriminate between men and women and within women, while they participate in community forest management. Gender theories can illustrate this phenomenon by analyzing the social (power) practices that turns male into men and female into women and discriminates between them (Burely, 2001). Indeed, it is important to decode both, the power performances (Butler 1990; Epstein 2006; Naples 2009) and the social context (Mohanty 1998; Gururani 2002) to better grasp the power relations between men and

women. Once gender is reconceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. In particular, paper III illustrates the changing social context due to a large share of men outmigrating and the resulting effect on women's participation in community forest management.

While gender theories highlight the importance of power relations between men and women in everyday practices, these do not fully embrace how human actions involve persisting (and changing) patterns of power relations. Thus, the theories relating agency and structure (Emibrayer and Mische 1998; Ahearn 2001; McCay 2003; Callinicos 2004) were combined with gender theories to better understand the nature and use of power by women in community forest management.

Using an agency perspective alone may hinder the discrimination that women can face in community forest management. Likewise, relying on a structural perspective alone may mask the potential that women can exercise in influencing community forest decisions. The dual interaction between agency and structure helped to capture the complete dynamics associated with women's participation in community forest management. On one hand, paper II and III support the interplay of structures in regulating agency. Paper IV, on the other hand, confirms the multifaceted relationships through which women exercise their agency and modulate structures.

In short, to address women's participation in community forest management, this thesis points the need to understand and decode the underlying assumptions of each theory. A combination of theories used in this thesis illustrated the inter-linkages that were observed to exist between agency and structure, but only when gender is conceptualized as dynamic and not static. Thus, a logical suggestion is that analyzing women's participation in natural resource management could be enhanced if theory incorporated (and also valued) the full breadth and depth of mechanisms and processes associated with women's participation.

6.3 Methodological implications

There exists a widespread dichotomy between quantitative and qualitative methods in social research. This dichotomy is often reflected in terms of oppositions such as "quantity versus quality", "objective versus subjective", "hard versus soft science", "products versus process" (Brecher 1999; Neuman 2006; Berg 2009). However, there is a growing recognition that such sharp dichotomies between qualitative and quantitative methods is fuzzy (Ravallion 2005) and that research studies benefit from a judicious mix of both methods (Kanbur 2003; Kelle and Erzberger 2004).

Previous studies investigating women's participation in natural resource management are either qualitative (Agarwal 1992; Lama and Buchy 2001; Buchy and Subba 2003) or quantitative (Ahmed and Laarman 2000; Atmis 2007) in nature. Rather than seeking to rely on only one method to collect data, this thesis designed a mix of qualitative and

quantitative methods to identify and analyze the full spectrum of complexity associated with women's participation in community forest management. Different methods such as questionnaires survey, in-depth interviews, focus group discussions, participant observations etc. were used to collect data. The question of the relative strengths and weaknesses of questionnaire-based surveys and qualitative methods has been the focus of much interest by both researchers and practitioners (Kanbur 2003; Zeller et al. 2006; Kanbur and Shaffer 2007). Deploying a mix of methods helped to complement the lack inherent in each method and also to validate the results (White 2002; Kelle and Erzberger 2004).

The use of a survey allowed to identify the influence of multiple factors affecting women's participation. While identifying different factors that can affect women's participation in a given time and space is important, it does not fully account of the endogenous process of change taking place. Qualitative methods such as in-depth interviews, interviews, focus groups, participant observation complemented this lack by linking subjective understandings to statistical associations and thus revealing the unseen social dynamics.

In-depth interviews and participant observation were particularly helpful to examine and interpret social processes beyond formal institution and every day lives (Thompson and Barrett 1997). Examining women's everyday lives was important in our case because men's and women's spheres of work (Chhetri 2001), networks of information (Lama and Buchy 2002) and spheres of influence (Banjade and Ojha 2005) can be different in rural parts of Nepal. Use of this method helped to obtain subjective perceptions, negotiating mechanisms, the role of institutions and power relations with which individual women tend to participate in community forest management.

While subjective perceptions of individual women were elucidated using in-depth interviews, how women as a group influence the power dynamics at community forestry is important to understand what has been gained and what is yet to overcome regarding women's participation. Focus group discussions identified the similarities and differences in perceptions, feelings, attitudes and ideas that women have. Moreover, focus groups were also used as a platform to discuss the initial results obtained from quantitative and qualitative survey with the women participants. This interaction provided the women an opportunity to validate the results keeping the ethical standards that these women have the greatest likelihood of benefiting or being harmed by the participatory approaches like community forestry.

As this thesis demonstrates, a carefully designed mix of quantitative and qualitative methods can reveal unexplored dimensions and enrich the investigation. Thus, this thesis tries to draw attention away from the traditional "one-sided" measures of results and highlight the need for a more comprehensive analysis. The mix of methods employed in this thesis may provide a guiding frame to investigate multi-faceted research issues, not only limited to women's participation in community forest management.

6.4 Policy and Management implications

6.5 Policy and Management implications

There has been a fundamental shift over the last decade in approaches to forestry and conservation with the recognition for the active participation of local communities in all aspects of project design and implementation (Chakraborty 2001; Balooni and Inoue 2007). With an increasingly important role of providing ecological and economic benefits (Sinden and Griffith 2007; Fleming and Fleming 2009; Dhakal and Masuda 2009) and promising democratic rights (Pokharel 2005; Meynen and Doornbos 2004; Fleeger and Becker 2008), participatory approaches of natural resource management such as community forestry will continue to be an important approach of participatory management in Nepal. Moreover, the contribution of women, as a distinct social group in the forest sector, has been internationally recognized and the need for attention to gender equity in participatory programmes is stressed (Agarwal 2000; Ahmed and Laarman 2000; Cornwall 2003; Upadhyay 2005). Nevertheless, existing social inequities and discriminating power relations are reported to pose strong challenges to women's participation (Agarwal 2001a,b; Gupte 2004). This thesis offers valuable insights into these challenges and provide a dynamic approach for successful policy and practice of participatory programmes.

More specifically, this thesis examines the interaction of changing social context with existing institutions and also decode the conceptual foundations of women's participation within community forestry frameworks to suggest additional perspectives that might enhance women's participation.

6.5.1 Dynamic social context and changing power relations

Participatory approaches champion the role of community in bringing about decentralization, meaningful participation, and conservation (Pokharel 2004; Meynen and Doornbos 2004; McDermott 2009). As paper I describes, the poor conservation outcomes that followed decades of intrusive resource management strategies and planned development in Nepal have forced policy makers and scholars to reconsider the role of community in resource use and conservation. The community has been the core social planning unit in community forest management. The inherent conception of community as a small spatial unit, a homogeneous social structure, and as shared norms has been critiqued lately (Agrawal and Gibson 1999; Lama and Buchy 2002; Gupte 2004; Colfer 2004). These critiques also applied to an institutional approach (Agrawal and Gibson 1999) which they claim focuses on the multiple interests and actors within communities, on how these actors influence decision-making, and on the internal and external institutions that shape the decision-making process. A growing body of literature has documented different institutional processes and mechanisms that can affect the extent of participatory inclusion (Agarwal 2001b; Lama and Buchy 2002; Gupte 2004; Dahal and Capistrano 2006; Ojha et al. 2009) and benefit sharing (Maskey

et al. 2006; Dhakal and Masuda 2009). While these studies focus on how discriminatory practices are historically created and influenced by asymmetries of power and special interests, it is less obvious how they further an understanding of the way in which wider social processes such as migration interact with existing institutions and influence power relations. This study extends further by investigating the general settings in which institutions are embedded and concludes that they are dynamic and can change power relations within institutions.

Paper II and III, describe the changes in social context that affected women's power and participation in community forest management. As paper III elaborates, men's outmigration triggered a set of new needs for the left-behind women and the society that eventually helped to mould institutions and increase women's participation in community forest management. The large differences in participation between women with husbands at home and women with migrated husband draw attention to the broader contextual influences led forth by men's outmigration on women's participation and deliberations, beyond unique local and institutional community influences. These findings confirm that the general setting in which social actors are embedded are liable to change by wider processes (such as men's outmigration in this study) and that can possibly trigger situations leading to creative adaptation and change (Alvesson and Sköldberg 2000).

There is an urgent need within community forestry programme to identify these creative changes taking place in communities and provide institutional and legal support to complement positive and deter negative changes. This requires an understanding of the contextual influences within community forestry user groups, an identification of the major driving processes at a given time, and an analysis of the effect on power relations and social action. Not only is an awareness of context important in understanding the nature and magnitude of changing power relations, but it should also inform the (re-)design of participatory practices (Boyle 1998 in Cashmore et al. 2007). Contextual influences when combined with external, tangible but potential pressures can become conscious influences on peoples' participation and deliberation in participatory programmes (Robson and Kant 2009). Thus, supportive legal measures in community forestry programme should be provided to sustain the innovative practices.

Indeed, as Martello and Jasanoff (2004) observe, it is no coincidence that the implementation of the global environmental participatory agenda has remarkably rapidly led to a rediscovery of the local. Thus, having an understanding of the local contexts and their impacts on participatory policies is a development inherently required by the concept of participatory programmes, like community forestry and, hence, long overdue.

6.5.2 Participation as an adaptive governance process

Forest management in Nepal represents a continually evolving participatory programme where management and use rights to local groups have dramatically expanded, with a clear recognition that women's participation in community forest management is

essential and important (Lama and Buchy 2002; Upadhyay 2005). Paper I, in particular, illustrates the trajectory of forest management and indicates change in ecological, economic and social dimensions. Important in the change process is to recognize the type of expected change, the processes used to ascertain and measure the change, and the exerting (power) influences behind the change process, as the paper IV points out.

In pursuit of increasing women's participation in community forestry, it is important not to neglect the qualitative aspect of women's participation. In order to look beyond quantitative expansion (number of women only committee, number and position of women in executive committee, number of women attending general assembly etc.), focus on the qualitative aspect of women's participation is necessary. Adopting gender-friendly policies and programmes should go hand-in-hand with similar developments in communities as a whole. In the current situation, it seems that if women's participation in community forestry is to be sustained, it needs to reflect upon the mechanisms and contexts through which participation of some or all women is enhanced or hampered. As the paper IV argues, a participatory policy is thus needed to broaden the understanding of "change" resulting with women's participation. This necessarily requires a shift to understanding the underlying process, a more nuance approach through which change is measured, rather than limiting itself to statistical data. When participation is understood as a transformative process, it requires both: the requirement of a representative share and the changes in discriminatory values and culture.

To understand the changes in values and culture due to participation in community forest management, the perspectives and mechanisms using which women participate in forest management should be well understood. The majority of natural resource including forest governance studies point to the prevalence of structures in affecting women's participation (e.g., Lama and Buchy 2002; Gupte 2004) with few exceptions (Nightingale 2006; Arora-Jonsson 2008b) While these factors are important, the findings of this dissertation signal to the need of exploring women's agency to better capture the perception changes and mechanisms associated with women's participation, rather than attempt to apply structural perspectives alone. It is important to know how and where internal change takes place, just as it is important to know how discrimination takes place. An agency perspective on women's participation can aptly signal to the recurring practices of negotiation, contestation, resistance, reproduction etc. that women tend to use. This implies that women participating in community forest management are to be understood as adaptive decision makers who are shaped by social structures and also creative beings that construct meanings and social structures. When approached in this manner, a better insight of the undergoing social process can be offered, which involves providing an actor-centred schematic that is dynamic but also situated within institutional and cultural contexts.

This perspective can also enhance the participation process by incorporating the dynamic web of power relationships beyond formal setting (such as executive

committee, general assembly, official meetings etc.). Social processes beyond formal institutions and practices may seem little to do with formal procedure of women's participation and thus, often neglected. Paradoxically, the formal institutional analysis often fails to grasp and respond to crafting different mechanisms that addresses tensions between formal and informal practices while seeking to promote women's participation. Paper IV documents women's underlying tensions and approaches in both formal and informal settings. In addition to women's entry and interactions in formal structures, this paper points the need to uncover the often hidden exchanges of interactions and logic and the extent to which such interactions and logic impact formal deliberations (Scott 1990, Wilshusen 2009), independent of whether they occur in the informal or the formal settings. Thus, this type of analytical perspective is helpful to locate how diverse social practices with different logics may be in play, producing largely invisible tensions that can have significant impacts on participatory policy and practice.

Thus, if policy makers and researchers want to empower women through their participation in community forestry and other participatory programmes, they must determine what women at communities perceive as relevant factors (supporting and constraining factors for participation) for change and how do women approach to these factors. Women may have their own reasons for social actions and researchers as well as practitioners involved in participatory programmes need to learn the reasons women have. Indeed, identifying these answers can help to better understand the power play, the processes through which power positions gets shifted, deconstructed and also reproduced in community forest management. People create society, society creates people, who in turn create society, is a continuous process (Newman 2006:97). Important in this process is to identify reproducing patterns of discrimination and to deter them using different legal measures.

Given the multiplicity of institutions and plurality of mechanisms associated with women's participation, a single uniform strategy, almost certainly cannot increase women's participation. When participation is understood as a reflexive and adaptive governance process, the associated dynamics of agency and structure in both formal and everyday practices can be captured. The positive change can be used to strengthen the learning process while resistances can be tackled using innovative strategies. Women's participation in community forest management, thus, has to be a socially just change process that is both reflexive and adaptive to the changing social context and is transformative against discriminatory power relations. The chances of women's participation in community forest management will be far greater if policy framing and implementation takes these considerations into account.

6.6 Perspectives for future research

This study used case study approach and employed a mix of methods to obtain results. This research provides comprehensive, empirical insight into the effects of men's

outmigration and women's participation. However, the results must be interpreted within the context of certain methodological limitations: the empirical data are derived from one case study in one institutional context (Nepal) and relate to the participation of women in one type of programme (community forestry) at a certain relational context (Mid-hills, high rate of men outmigrating, forest-dependent communities). These outcomes are thus dependent on the institutional, legal, and socio-political context which needs to be taken into account when inferring comparable conclusions.

The present study offers several important research directions for further studies. Men's outmigration is an increasingly dominant activity in many developing countries including Nepal. Because this study examined the effects of men's outmigration on women's participation while controlling ethnic composition, economic status and forest dependency, further study can investigate the influence of these variables on the effects of men's outmigration. Likewise, the process through which men's outmigration can lead to a process of social transformation to empower women through an active engagement with community forestry need to be investigated. While this study was limited to understand the effects of men's outmigration in women's participation in forestry, further empirical study using the framework of the study can be used to analyze women's participation in agriculture, health, climate change etc.

In addition, using the methodological framework of the present study, more research on understanding how women's agency interacts amidst limiting structure in other participatory programmes can be of interest. Likewise, research to develop extensive qualitative indicators to measure the extent of women's participation in participatory programmes is also required. Moreover, further research need to decode the assumption of women as a 'unified mass' in participatory programmes and analyze the intersections of discrimination that can vary across different types of women (such as class, caste, education etc.).

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PART B: PAPERS

Paper I

Development and status of community forestry governance in Nepal

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Development and status of community forestry governance in Nepal

Abstract

Nepal has increasingly gained world-wide recognition in participatory forest management, primarily through “community forestry” programme. This paper sketches trajectory of forest management policies and practices in Nepal and analyzes achievements and pitfalls associated with community forestry. The focus is on analyzing the relations amidst good forest governance, sustainable livelihoods and forest conservation. Our analysis indicates that community forestry programme has been successful to meet the twined goals of forest conservation and socioeconomic transformation through power devolution, participation and good governance. Encouraged with such achievements, Nepal has envisioned attaining the national goals of poverty alleviation and the global goals of Sustainable Development by strengthening good forest governance, sustainable forest management, and livelihood improvement. Though, there are adequate challenges, mostly socio-economically, community forestry has been a ‘Learning platform’ that empowering people and recognizing their rights over the resources is the most viable approach of sustainable forest management for a country like Nepal.

Keywords: forest management, good governance, livelihood, community forest user groups, Nepal

Introduction

Nepal is a landlocked Himalayan country situated between India and China. Nepalese Himalaya has ten out of the world's 14 peaks over 8,000m, 127 peaks over 7,000m and other 1,311 smaller peaks over 6,000m (Pandey 1995). Geographically, mountains, which are the least productive area, cover 35.2%, whereas mid hill occupies 41.7% and the most productive flat land of Terai, which has an elevation less than 300m, occupies 23.1% (MFSC 2002). Based on land use classification, Nepal constitutes 29% of forest, 10.6% of scrubland and degraded forest, 12% of grassland, 21% of farmland, and the rest 7% of uncultivated lands (LRMP 1986). Deforestation was major challenge before the 1990s. It has been reported that between 1978/79 and 1990/91 forest cover decreased at an average annual rate of 1.7% (1.3% in the Terai and 2.3% in the Mid-hills) and scrublands decreased at an annual rate of 0.5% (DFRS 1998).

Similarly, land use practices are more intensive than its potentiality as per soil capability classification. For example, only 4.1% is suitable for grazing whereas at least 22.8 % is being utilized for grazing (LRMP 1986). Nepal has abundant fresh water river systems,

with the flow of approximately 200 billion cubic meters per second, which have potentiality of generating 45,000MW hydroelectricity. It is endowed with plethora of biodiversity because of its unique location in the transition of Eastern and Western Himalayas; and between Palaearctic and the Indo-Malayan bio-geographical realms. The country, which occupies only 0.03% of the World's terrestrial mass, exhibits the following share of global biodiversity: 5.1% bryophytes (Mizutani et al 1995; Furuki and Higuchi 1995); 3.4% pteridophytes (Iwatsuki 1988); 5.1% gymnosperms, 2.7% angiosperms (Koba et al. 1994, Akiyama et al. 19982); 2.6% butterflies (Smith 1994); 1% fishes (Shrestha 2001); 1% amphibians (Shah 1995); 1.6% reptiles (Shah 1995); 9.3% birds (Grimmet et al. 2000); and 4.5% mammals (Suwal and Verheugt 1995). Diversity of forest is also very high due to climatic and altitudinal variations. Stainton (1972) classified Nepal's forest into 35 different types. Among them, ten major forest types with some common species are presented in below (Table1).

Table 1: Diverse forest types and common forest species in Nepal

SN	Type of Forest	Altitudinal Range	Common Species
1	Tropical forest	below 1,000m	<i>Shorea robusta</i> ; <i>Acacia catechu</i> , <i>Dalbergia sissoo</i> , <i>Michelia champaca</i> <i>Bombax ceiba</i> <i>Terminalia/Anogeiss</i>
2	Subtropical broad-leaved forest	1,000-2,000m	<i>Schima wallichii/Castanopsis indica</i> , <i>Cedrela/Albizia</i> , <i>Alnus nepalensis</i>
3	Subtropical pine forest	1,000-2,200m	<i>Pinus roxburghii</i> (South aspect in Central and Western Nepal)
4	Lower temperate broad-leaved forest	2,000-2,700m in the west and 1,700-2,400m in the east.	<i>Alnus nitida</i> , <i>Castanopsis tribuloides/C. hystrix</i> , <i>Lithocarpus pachyphylla</i> , <i>Quercus leucotrichophora/Q. lanuginosa</i> forests and <i>Q. floribunda</i> , <i>Q. lamellose</i> , <i>Lithocarpus pachyphylla</i>
5	Lower temperate mixed broad-leaved forest	1,700-2,200m	Species of Lauraceae family.
6	Upper temperate broad-leaved forest	2,200-3,000m	<i>Quercus semecarpifolia</i>
7	Upper temperate mixed broad-leaved forest	2,500-3,500m	<i>Acer spp</i> , <i>Rhododendron spp</i> , <i>Aesculus spp</i> , <i>Juglans spp</i>
8	Temperate coniferous forest	2,000-3,000m	<i>Pinus wallichiana</i> , <i>Cedrus deodara</i> , <i>Cupressus torulosa</i> , <i>Tsuga dumosa</i> and <i>Abies pindrow</i> , <i>Picea smithiana</i> , <i>Juniperus indica</i>
9	Sub-alpine forest	3,000-4,100m	<i>Abies spectabilis</i> , <i>Betula utilis</i> , and <i>Rhododendron Species</i>
10	Alpine scrub	above 4,100m	<i>Juniperus recurva</i> , <i>J. indica</i> , <i>J. communis</i> , <i>Rhododendron anthopogon</i> , <i>R. lepidotum</i> , <i>Ephedra gerardiana</i> , <i>Hippophae tibetana</i> , <i>Caragana versicolor</i> , <i>Lonicera pinosa</i> , <i>Rosa sericea</i> and <i>Sophora moocroftiana</i> ,

History of Forest management and evolution of community forestry

In Nepal, forest policy has been developed and practiced primarily in response to the negative consequences of preceding policies (Pokharel et al. 2005). Therefore, there are different stages with varying modes of the forest ownership and management schemes. Hobley and Malla (1996) have classified Nepal's forest management history into three important periods, namely privatization (1768-1951); nationalization (1951-1978) and populism (1978 onward).

Privatization (1768-1951)

Prior to 1950s, forest was managed in traditional indigenous ways. Historically, the Nepalese feudal states used forest primarily for securing revenue and bolstering its military strength (Guthman 1997). From the sixteenth century to the nineteenth century, the state encouraged hill forest to convert into agricultural land to increase land tax, and protected Terai forest for the military protection of the country against expanding British India Company (Blaikie et al. 1980; Mahat et al. 1986; Blaikie and Brookfield 1987; Ives and Messerli 1989). After 1846, forests were handed over to local elites in various forms such as birta, talukdar, kipta, guthi, and jagir (salary) for serving the government. The forests were in control of those elites and were then inherited within the family. In 1907, an official document (lalmohr) provided guideline for such system (Hobley and Malla 1996).

In lalmohr, according to Adhikari (1990), people were required to ask elite (talukdar) had they required timber, and talukdar was required to ask people had he required timber. Local people had free access to the forest for limited commercial value of fuelwood, fodders, and medicinal herbs (Hobley and Malla 1996); but they used to get timber by doing labor or other forms of gifts and services to those elites. Forest watchers were hired and paid in kind by villagers for the protection of forest from unruly activities. Forest as an integrated constituent of the farming system (farm, forestry and livestock), people were managing the forest since a long ago (Arnold and Campbell 1986; Gilmour and Fisher 1991; Messerschmidt 1993). As Swallow and Bromley (1992) stated suitable informal rules practiced through generation yields "governance without government", the forest condition was very good despite the absence of appropriate forest laws to manage national forests until 1951 (Mahat et al. 1986).

Nationalization (1951-1978)

During the 1950s, the global paradigm of development was based on Industrial development model with top down approach. Renowned economists advocated that the benefits of the industrial development trickle down to local people and country could achieve economic prosperity (Gilmer and Fisher 1991). Influenced with it, Nepal realized that the forest is important source of revenue which can be channelized for the industrial

revolution of the country. Moreover, forest based industry itself could contribute to the great extent for the economic development. But the large parcels of the forest were privately owned and were controlled by few local elites. According to Regmi (1978), at least one third of the total forest was under Birta (privately owned) and three quarters of the land belonged to Rana Family, the ruler of the country before democracy. So, through the Forest Nationalization Act (1957), Nepal nationalized all forest of the country (Gilmour and Fisher 1991).

Though the hidden intention of the nationalization was to resume the control over privately owned forest, local people interpreted the legislative action as “taking forest away from the people” (Fisher 1999). Irrespective of the purpose, it was not followed by effective mechanism of control and management. As the result of people perception and to preserve the property right of ownership, forest holders began to convert forest into agriculture. Thus, the nationalization led to massive deforestation primarily for converting the forest land to other land uses so that the criteria of being national forest are escaped (Schulte and Sah 2000). The Department of Forest neither was able to manage the forest effectively nor was able to control the deforestation, despite of having strong legal backing.

Considering this phenomenon as the result of insufficient legal support, forest officials were given more authority for protecting the forest through Forest Act of 1961 and the Forest Protection (Special Arrangement) Act of 1967. Though the forest was nationalized and officials were made highly powerful, forest deforestation continued and management endeavours from government were unable to control (Wallace 1981). Eventually, forest nationalization converted the limited access people controlled forest to open access common property resources (Hobley 1985; Ostrom 1990; Messerschmidt 1993). According to Agrawal and Ostrom (1990) ignorance of existing local forest management system and absence of effective management and monitoring system of the government led the widespread deforestation.

The fate of common property resource is predicted by two authors contradictory to each other. In “An Inquiry into the Nature and Causes of the Wealth of Nations”, Smith (1776) popularized the idea of invisible hand which states when rational individual act beyond self interest with regard of others, the output of common resources maximizes. Though the notion is amazing, to what extent it is pragmatic is questionable (Ellerbrock et al. 2008). On the other hand, according to Hardin’s Tragedy of Commons (Hardin 1968), when the resource has unlimited open access, each rational individual is irresistibly tempted to maximize his gain as the benefit remains fully with him and negative effect of the decision is only a fraction as that equally affects to other individuals. Thus, each individual rush for the maximum benefits that ultimately ruins the common resource (Hardin 1968). Common resource gives a feeling that if I do not use the last unit, someone else will do. As of Costanza (1991), the activities are individually rational but collectively undesirable. In addition to inherent complexity of common resources: excludability and subtractability (Feeny et al. 1990); the situation of ‘everybody’s

responsibility is nobody's responsibility', very usual in common property resources, emerges and resource retrogression exacerbates (Lomborg 2001).

Out of these two contrasting ideas, forest in Nepal suffered through the Hardin's Tragedy of Commons. Sanera and Shaw (1996) argued that the cause of Tragedy of Commons is due to the lack of ownership and property rights. After nationalization, increased demand of the forest product due to rapid population growth, massive deforestation and conversion to agricultural land through terracing in the steep Mid-hills resulted high soil erosion, landslide in the Mid-hills and floods, siltation in the lower plains (Guthman 1997). Adoption of animal dung as a response of dwindling fuelwood supply contributed decreased productivity in the farm, which required more farm land to meet the food supply consequently pushing for more deforestation (Ives and Messerli 1989). Such massive deforestation in the Himalayas was considered to be the root cause of the severe flood in the Ganges and its regional impact on agriculture in early 1970s (Myers 1986). Between 1964 and 1985 Nepal lost about 570,000 hectares of forest (HMG/N 1988).

Linking widespread deforestation and rapid population growth as the predominant cause of downstream siltation and flooding in the Ganges, Eckholm (1975) propounded the "Theory of Himalayan Environmental Degradation." After the theory, the environmental crisis of Nepalese Himalaya received international solicitation (Guthman 1997) The Munich conference on "The Development of Mountain Environment" concentrated on the deterioration of Nepalese Himalayas. Sandra Nichols in 1982 with the financial support of World Bank produced a movie: *The Fragile Mountain* (Ives 1987). This also played a vital role to draw the global attention on the associated problems of forest deterioration. The situation was highlighted by the World Bank's prediction that all the accessible forests would disappear in the Mid-hills by 1993 and in the Terai by 2003 unless immediate movement to counteract the deforestation rate was commenced (World Bank 1984). As such, this idea of ecological doom regarding Nepalese forest resource base served as a benchmark to influence and evaluate the impact of forest policies afterward.

The influence of external agent, especially the World Bank, is crucial through its financial leverage to large sectoral funding (Rowchowdhury 1994). The World Bank pressurized the government to take some immediate steps to counteract the situation. Consequently, in the ninth national forestry conference of Department of Forest in 1975, the deteriorating condition of the hill forest was rigorously discussed. The proceeding of the conference laid foundation for the national forest plan of 1976 which recognized the inability of government to protect the forest without the involvement of people (Hobley 1996). This plan took the major shift of the government policy to manage the forest. Through the national forestry plan of 1976, people's participation was recognized as a crucial aspect to counteract the challenges and was reflected in forest policies of 1978. In 1978, Nepal introduced a policy to hand over forest for the protection and management to local political administrative bodies in the form of Panchayat Forest and

Panchayat Protected Forest (Fisher 1999). In the sectoral policy of forestry, Sixth five year plan of 1981 also emphasized community involvement for the protection, management and utilization of forest. Decentralization Act (1981) further empowered local political bodies to manage the local resources including forest.

Populism (1978 onward)

Globally, concept of Community Forestry emerged and became popular partly due to the failure of industrial development model to address socio-economic development and partly, due to the increasing deforestation and degradation (Gilmour and Fisher 1991). The concept, came in vogue after Food and Agricultural Organization published a report on 'Forestry for Local Community Development' (FAO 1978), and was further consolidated by the theme of 1978 Eighth World Forestry Congress, "Forestry for People", held in Jakarta, Indonesia (Gilmour and Fisher 1991). Under these global scenarios, in the Ninth Forestry Conference held in 1978, government officials, project staffs and donor agencies evaluated the progress and shortcomings of Panchayat Forest and Panchayat Protected Forest and decided user group model of forest management. As an outcome of this workshop, Master plan for Forestry Sector (MPFS) was developed.

A Master Plan for Forestry Sector (HMG/N 1998) prepared for 21 years states: the major policy of forestry sector is to encourage community participation by giving the full responsibility of forest management. It also allocated the 47% of total budget of the Ministry of Forest for community forest and emphasized on the reorientation of foresters for the new role of facilitation, from the traditional policing to encouraging participation of local communities in forest management. The Community forestry programme, the largest component of the MPFS was explicitly designated to meet the fundamental requirement; fodder, timber and fuelwood, of people. Guided by MPFS, along with the establishment of multi-party democracy in 1990, Nepal promulgated Forest Act, 1993 (HMG 1993) and Forest Regulation, 1995 (HMG 1995).

Through the series of restructuring and reformulating policies, Forest Act 1993 and Regulation 1995, being supported by Master Plan for Forestry Sector (MPFS), legally commenced a provision that a group of people forming the community forest user group (CFUG) can get part of the national forest as community forest to manage, protect and utilize after approving the operational plan with District Forest Office. Those legislations recognized CFUG as an independent local institution for managing community forests on an equitable and sustainable basis. These legal flexibilities have made community forestry as one of the most successful programmes of Nepal (Bhattacharya and Basnyat 2003).

After having strong legal backing, community forestry got the momentum and is said to bring numerous significant effects both, in forest and socioeconomic status of people. As a result, target of community forestry programme transformed to poverty reduction and Millennium Development Goals attainment. The third national workshop on

community forestry held in 1998 projected the aim of community forestry programme beyond mere fulfilling the basic needs to achieving national goal of poverty reduction and stated four pillars –social justice, equity, gender balance and good governance to achieve the aforementioned goal. Out of eight Millennium Development Goals (MDGs) eradicate extreme poverty has received the utmost attention, and 115 nations have committed at the United Nation (2000) at reducing the level of global poverty by half until 2015. The Tenth Five year Plan has also aimed at poverty reduction (HMG/N 2002). Forestry Sector Coordination Committee has identified and stressed to focus on the second-generation issues of community forestry such as livelihood promotion, good governance and sustainable forest management to mainstream and add relevancy to the programme at the present context.

Status of community forestry

Nepal couldn't make any progress in the most of the sectors even after democracy due to instability and inability of the government and high corruption (World Bank 2001); but the community forestry programme has remained an exception. During the two decades, community forest management policies and procedures have dramatically been shifted parallel to the changing objective of forest management from fulfilment of subsistence needs to achievement of sustainable economic transformation (Giri 2005). It has been seen that given relative security of the tenure of the forest management, local communities manage the resources expecting better condition in future.

Currently, at national level, 1,640,239 households (35% of total population) are managing the 1,187,000 hectares forest (25% of total forest land) of Nepal. Until 13 Nov. 2005, total of 14,201 CFUGs (600 women only user groups) have been formed covering an area of 1184,821 hectares (average being 83.43 hectares /CFUG and 0.73 hectares /household) with the involvement of 1,633,408 (avg. 115/CFUG) households (DoF 2005). In 2002, the annual income of the Department of Forest was Nepalese Rupees (NRs.) 550 million and total budget 680 million, but the Community Forestry which is only 25% of total forest, earned about 740 million (more than US\$ 10 million) which is higher than the annual budget of the Department of Forest and is almost 42% of the annual budget of the Ministry of Forest and Soil Conservation (Kanel and Niraula 2004). This implies high efficiency of community based forest management. Inspired with the successful examples of community forestry, the fourth national workshop on community forestry in 2004 stressed its role to achieve the Millennium Development Goals through good forest governance, sustainable forest management and livelihood.

At present, hundred percent of benefits that come out of community forestry directly goes to community forest user groups and contributes in multiple aspects of the local development. The following diagram (see Fig. 1) illustrates the pattern of fund expenditure of community forestry in the national level (Kanel and Niraula 2004). As seen below, the highest priority has been in the community development activities

(36%) which include road, school, irrigation, community buildings, drinking water supply, and physical infrastructures and so on. The second most prioritized aspect is forest development activities (28%). Forest act and regulation have the mandatory provision of 25% total fund to be spent in forest management but communities are spending higher than the obligatory level which implies that local communities are much more responsible to forest development than they are thought to be. Even though, the amount spent in pro poor programmes is very low, there has been good start to address poverty reduction target of the country through forest management.

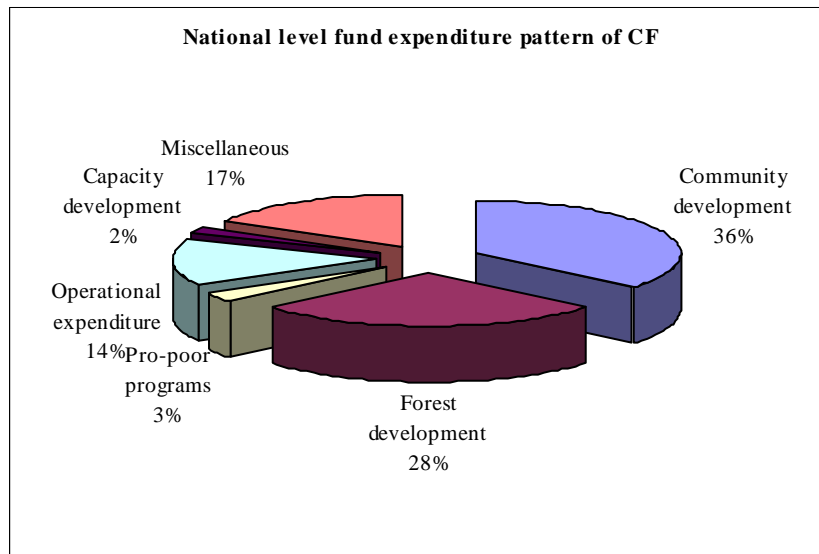


Figure 1: Fund expenditure pattern of Community Forestry in Nepal

(Source: (Kanel and Niraula 2004)

Some of these activities are directly related to Millennium Development Goals. For example, in eastern Nepal, forest user groups have been able to invest US\$327,000 generated by the sustainable use of forests over ten years in formal school education, informal literacy programmes for women and the poor and scholarship for poor students (Mayers 2007). This is an example of Community Forestry contributing to one of the Millennium Development Goals (MDG): achieve universal primary education, promote gender equality and empower women, the second and the third goals of MDG (Mayers 2007).

Several impact studies of community forestry across the country have concluded that community forestry has brought significant favourable alteration in the socio-economic status of the community (Schereier et al. 1994; Virgo and Subba 1994). Some community forests have contributed in road, school, irrigation canal, health post etc which has caused several direct and indirect positive impacts upon the livelihoods. Furthermore, community forestry has brought supportive influences on agriculture production, income and employment generation, biodiversity conservation, social unity and literacy in society. So, community forestry has brought a change of great

socioeconomic significance in rural society (Branney and Yadav 1998; Malla 2000; Pokharel 2004; Pokharel et al. 2005).

However, there are plenty of cases that report the negative impact of community forestry programme upon the livelihoods of poor and forest dependent people (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003). For instance, Gentle (2000) stated that community forestry programme has widened the gap between the poor and the rich people involved in community forest management. Elite groups in the villages dominate decision-making and often neglect the interest of other people. Participation of poor and disadvantaged groups in community forestry is very low while the local elites (high social status, wealthy and educated) are influential in local decision-making processes of community forest user groups (Gilmour and Fisher 1991). Consequently, an unequal distribution of community forestry benefits in favour of local elite is common in many community forest user groups (Maharjan 1998; Brown et al. 2002). This variability in community forestry outcomes indicates an intricate relationship amidst community forest governance, forest resource status, and livelihood of people which is dealt below in detail.

Good forest governance

Forest governance is defined as the set of principles and rules of forest resources management under which power is exercised and practiced in all spheres from private to public and the relationship between the state and its citizens, civil society and the private sector (Pokharel and Niraula 2004). It can have different meaning at different context. But, for poor and marginalized people, good governance means an enabling environment with higher inclusion and reduced marginalization. That means greater opportunity for their involvement in public policy making, greater likelihood of being treated equally by the law, more space to associate and pursue interests, and a better chance of bureaucrats behaving responsibly towards them (Pokharel and Grosen 2000).

The prevalent hierarchy in Nepalese society among rich and poor, low caste and high caste, male and female is the greatest challenge for the smooth functioning of any development endeavours. Due to such hierarchy, there is the degree of social, political and economic exclusion resulting to poverty. Mostly, women and ethnic groups are left out of the mainstream of development as they lack voice, empowerment, representation and access to economic opportunities. Therefore, weak governance is the key determining factor to exacerbate the poverty (HMG/N 2003).

However, surprisingly, community forestry has exhibited better governance. A number of studies (Malla 2000; Dev et al. 2003; Pokharel 2004; Pokharel et al. 2005) have revealed that community forest user groups are increasingly being more responsible, accountable, transparent, compliant of rules, laws and decisions, decentralization and devolution of power and authority, defined roles and responsibilities, pursuant of participatory decision-making, gender sensitivity, equitable representation and user balance, bi-directional flow of information horizontally and vertically. These are the

indicators of good forest governance (RECOFTC 2001). As an example, in Dolakha, Ramechhap and Okhaldhunga districts of Nepal, where Nepal Swiss Community Forestry Project is supporting, the percentage of household membership, in community, of the total district population has increased from 18% in 1995 to 76% in 2004; women in community forest user group committees have increased from 21% in 1995 to 35% in 2004. Representation of women in key decision making positions such as chairperson and secretary has also increased.

Similarly, Dalit's representation in community forest user group committees has increased proportionally with district population from 3% in 1995 to 11% in 2004. Likewise, representation of ethnic minorities in community forest user group committees has also augmented (Pokharel et al. 2005). One of the positive impacts of the current forest policy is enhanced social and human capital of local people. In particular, inclusion and representation of marginalized communities such as poor women, socially excluded groups and people from remote areas in leadership positions of Community Forestry governance has occurred at local level. These people later have been able to competitively acquire leadership positions in local governments (Gronow et al. 2003).

Pokharel (2005) stated that community forest user group (CFUG) are functioning as a small nation (Box 1) delivering services analogous to 16 ministries like election of executive committees, budget allocation, and contribution in road, school etc. So, good governance of each community forest user group could facilitate achieving the national targets of the policies and strategies

Box: 1 CFUG as a small nation (Pokharel 2005)

1. Parliamentary system-	Election/selection of executive body
2. Ministry of Finance	Management of CFUG fund, loan flow to the users, present annual record of income & expenditure in the assembly
3. Ministry of Law and Justice	–Conflict resolution relating to access and control over resources forest boundary problem etc
4. Ministry of Supplies	Supply forest products goods & services to communities
5. Ministry of Cooperatives	CFUG networks and federation safeguarding user's rights
6. Ministry of Home	Patrolling and protection of forests against destructive factors
7. Ministry of Environment	Activities conducted relating soil conservation and watershed management
8. Ministry of Agriculture	Support to users in vegetable farming, livestock husbandry, fishery, bee keeping, construction of irrigation canal
9. Ministry of Physical Planning	Construction and maintenance of community building, drinking water, bridge etc
10. Ministry of Women and Social Welfare	Focus on situation of women, dalit, members from ethnic minorities and remote places
11. Ministry of Education	Support in scholarship, teacher's salary, school building and furniture etc
12. Ministry of Transport	Fund investment or labor contribution in constructing road/trails
13. Ministry of Communication and Information	Public hearing, public auditing, information flow both vertically & horizontally
14. Ministry of Tourism	Ecotourism by constructing picnic spot, temples, recreational spots
15. Ministry of Health	Investment in health post, medicine, awareness in sanitation.
16. Ministry of Forest	Forest management, sivicultural operations, harvesting with growing stock assessment

Nevertheless, the results are not smooth throughout the country (Varughese 1999; Chakraborty 2001; Schweik et al. 1997). There are plethora of studies those have reported negative consequences on poor people after community forestry. After the community forestry has been formed, degraded forest are closed off to enhance the forest regeneration, this act however affects the forest dependent poor people (Edmonds 2002; Springate-Baginski et al. 2001). Community forest user group committees and user group decision-making are dominated by elites (Dougill et al. 2001). Though the forest policies have been decentralized and devolved; the power is vested among the handful of influential elite people (Azhar 1993; Robbins 2000). Low caste people and women who are most dependent on the forest have marginal role in decision making process (Mehta and Kellert, 1998, King et al. 1990; Hausler 1993). Roles and power are distributed according to defacto power structure and political balance of the system (Giri 2006).

Despite the power devolution effort of government from central level to local indigenous people/institution level, the results are heterogeneous. Certain groups unfairly use their increased power for their personal interests and agenda and women and minorities who are traditionally powerless are hardly empowered (Kellert et al. 2000). Such a situation has led to “participatory exclusions” (Agrawal 2001) within users in Community Forestry programme. Therefore, even though enhanced through liberal policies, community forest policies in practice have been acted upon as ‘centralized decentralization’ (Hobley 1996; Giri 2006) hampering the deliberative interactive mechanisms (Giri 2006) that community forestry policies can potentially offer if well-governed.

Sustainable Forest Management

Forest management activities of community forest user groups include plantation in the degraded forest, enrichment planting in the existing forest, their protection, management of already established forest, and control of fires, illicit tree felling, grazing. Consequently, the major achievements have been protection of the forest, expansion of greenery, rehabilitation of degraded land and restoration of biodiversity (Schreier et al. 1994; Virgo and Subba 1994; Collett 1996).

Community forestry in Nepal is especially successful in forest conservation (Springate-Baginski et al. 2001; Gautam et al. 2002, 2004; Yadav et al. 2003; Thoms 2008). The comparative studies of the forest before and after community forestry have shown the better establishment of plantation, regeneration, and faster growth of tree (Roberts and Gautam 2003). People are applying their indigenous knowledge to protect, and manage forest for fulfilling their basic needs which are the primary goals of community forestry (Gilmour and Fisher 1991). Some community forest user groups are involved in active forest management such as the establishment of experimental plots to investigate the effect of different silvicultural treatments and their application in larger scale. As a result, dramatic improvement of forest after the community forestry programme has been observed. For example, Branney and Yadav (1998) revealed the increased total number

of stems per unit area by 51%, basal area by 29%, increased active forest management from 3% to 19%. In a study of 135 square Km watershed area, Gautam et al. (2003) found decreased number of forest patches (395 in 1976, 323 in 1989, and 175 in 2000) and continuously increased area per patches implying the connectivity through forest regeneration.

But, most of the community forest user groups are protection oriented. They are only removing dead, dying, fallen trees, and leaf litter. Due to such passive management, using forest just for the subsistence needs, the productivity of the forest is not completely utilized (Sowerine 1994; Shrestha 2000; Larsen et al. 2000; Edmonds 2002; Malla et al. 2003; Pandit and Thapa 2004; Yadav et al. 2003). Hill (1999) estimated NRs. 560 per household per day as the loss of not conducting active management in community forestry. Moreover, community forest user groups are extracting fewer products than the capacity of forest. In a study from Dolakha district, Koirala (2006) found that the capacity of forest to supply the products has dramatically improved: 134% increase in timber, 405% increase in fuelwood, and 582% increase in fodder from 1999/2000 to 2003/2004 (see Fig. 2). Demand of the forest product is higher than the prescribed supply of those products. But, community forest user groups are taking less forest products than the forest can supply. It reinforces that community forest user groups are strictly protecting the forest with minimal extraction. Therefore, it has been essential and challenging to expedite active forest management- extracting the overstocked product and enhancing the productivity to the fullest potentiality of the forest.

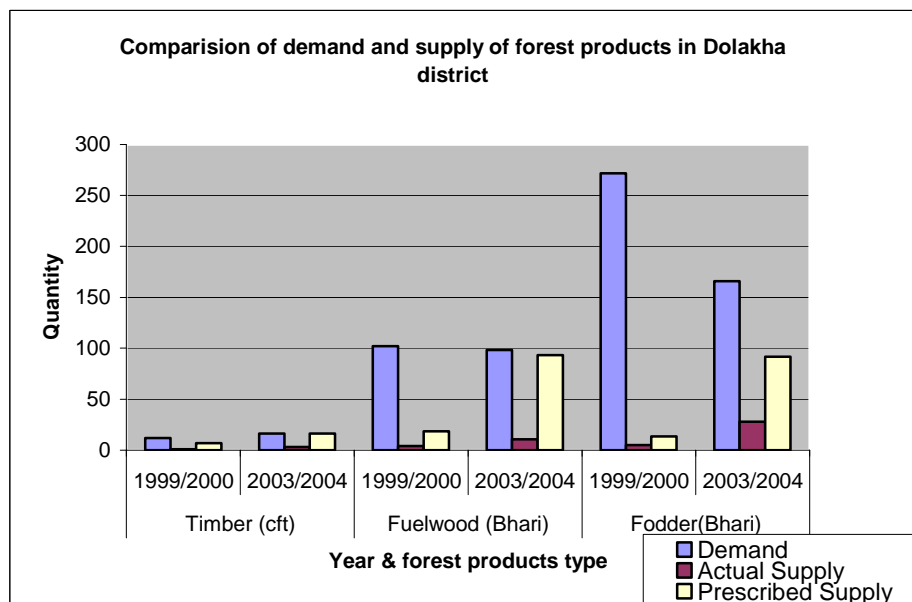


Figure 2. Comparison of demand and supply of forest products in Dolakha district (Koirala, 2006)

Sustainable Livelihood

According to the sustainable livelihood framework (see Fig. 3), a system or an individual can generate sustainable livelihood outcomes and strategies mobilizing the livelihood capitals (DFID 2002). Pokharel (2004) considered community forestry as the most successful programme in generation of livelihood capitals; natural capital (forest itself), human capital (acquiring expertise), financial capital (CFUG Fund), social capital (CFUG networks), physical capital (infrastructures like road, schools) (Dev et al. 2003). Forest also includes the capability benefits such as opportunities for social networking and skills development during user group formation, through income generation, home improvement, improved trails, in-village drinking water sources, support to schools (e.g. salary, building materials, etc.), construction of community buildings, community roads, and village electrification (Thoms 2008).

Assessing these capitals in individual household for well being ranking, the user groups identify poor people. For identified poor, community forest user groups develops the provision of income generation activities like goat keeping, bee keeping, mask-carving, bamboo furniture and other benefits like reduced or no price for the fuelwood. Some community forest user groups collaborate with other groups to develop forest based enterprises like resin tapping, paper making and juice making industries and they give priority to poor in employment opportunities. To improve the livelihood of forest dependent poor people, Nepal Swiss Community Forestry Project introduced the concept of “FREE LIFE approach” which includes Free forest product for poor, Funds for them, their Representation in leadership positions, Employment, scholarship for Education, access to community forest Land, Inclusion in decision making processes, equitable access to Forest products, and income generating Enterprises. Based on their resources, community forest user groups develop livelihood strategies that motivate people’s participation and contribute in poverty reduction.

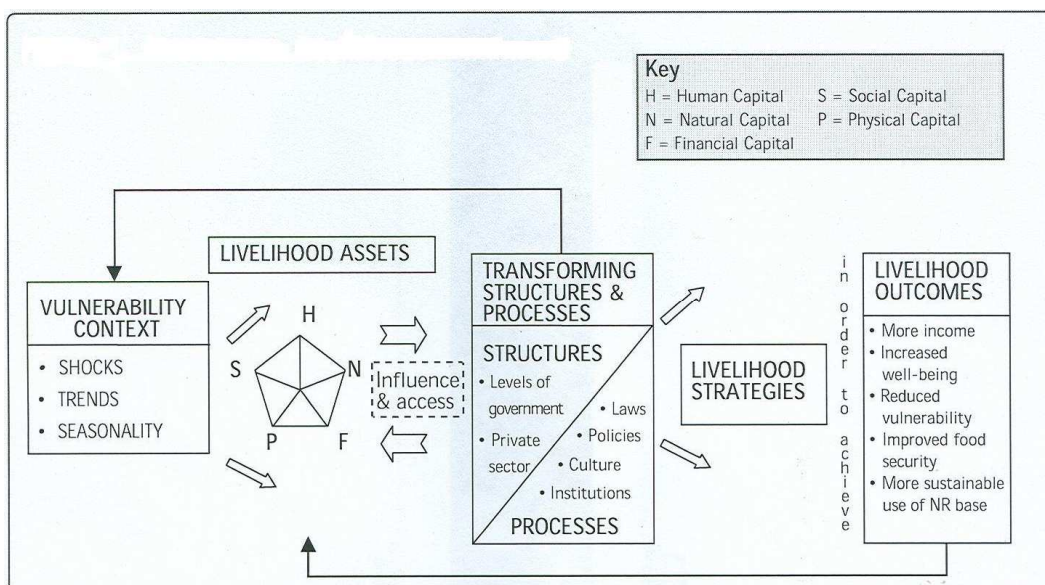


Figure 3 Sustainable livelihood framework (DFID, 2002)

For the livelihood of poor and disadvantaged, equity has been prime focus and increasingly being practiced. Equity is the special consideration for the marginalized section of the community (poor, women, dalits). It includes human rights and gender equity and the reversals, not for absolute but for levelling, of putting the last first and the first last to be considered in all contexts (Chambers 1997). This sort of substantial focus for them is against the widely existing socio-political system of hierarchical nature. Therefore, it is most challenging as it lacks the support of or even the consent of, the elite and affluent. Even the targeted population is not strictly adhering upon such proposition (Baral 1999).

Here is a good example of equitable benefits distribution, in other words, putting the last first, from three hill districts viz. Doalakra, Ramechhap and Okhaldhunga among 75 total districts in the country (Steenhof et al. 2007). Out of total 900 Community Forest User Groups (CFUGs) in that area: provision of equitable and positive discrimination for timber distribution is good in 41%, satisfactory in 46% and poor in 13%; provision of equitable and positive discrimination for fuelwood distribution is good in 52%, satisfactory in 38% and poor in 10%; provision of equitable and positive discrimination for non timber forest products good in 19%, satisfactory in 29%; and poor in 52%. Similarly, 8% of community forest user groups have allocated forest land, 7% has provided grant support and 24% has provided loan assistance to disadvantaged households to conduct various income generating activities. 13% of community forest user groups are providing scholarship to poor and disadvantaged students, 49% are delivering various humanitarian supports to the victims of natural disaster, 26% are helping in health and medicine and 17% are providing shelter support through goods and services to the poor. In all of these cases, there has been dramatic improvement compared to last three years (Steenhof 2007).

People have modified livelihood strategy to adapt communal rules of limited access to community forest by increasing the number of trees in the private land, keeping quality of livestock than large herds (Otsuka and Place 2000; Foster et al. 2000). But, there are some cases in which poorer households are negatively affected (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003) because of their high dependency on the forest and due to lack of other alternatives. Poor people, not having enough land depend on labouring, fuelwood collection and selling, charcoal production and blacksmithing. But, with controlled access, and limited use, those people are affected (Springate-Baginski et al. 2001).

Conclusion

Socio-economically poor but bio-physically rich Himalayan country, Nepal has passed through several stages in the history of forest management. National and international pressures are instrumental in shaping the forest management paradigm. The early

mode of tenured privatization had high degree of indigenous forest management with well balanced need fulfilment as well as forest conservation. But, the forest nationalization endeavour disturbed this balanced status of forest, agriculture, and people transforming forest to open access common resource. As of Hardin's Tragedy of Commons, the deforestation and degradation of Nepalese forest and consequent regional flood disaster in lower plains laid the basis for Theory of Himalayan Environmental Degradation. In late 1970s, global recognition of role of forestry for local community development by Food and Agriculture Organization, and by Eighth World Forestry Congress in general and World Bank's alarmist view in particular pressurized the government to realize that without people participation government alone is incapable to manage the forest resources.

Slowly and steadily, legislative policies became more and more favourable to community participation and in early 1990s community forestry was fully legalized. After the legal recognition, community forestry in Nepal, especially in Mid-hills, has got momentum. Within two decades, it has been considered as the global leader in community forestry (Arnold 1998; Mahapatra 2000; World Bank 2001). Comparing the predicted ecological doom in mountains of Nepal by The World Bank in late 1970s to the present recognition Nepal as a global leader in forest conservation through community forestry programme implies that Nepal has been an excellent evidence indicating a dramatic trajectory of forest change (from severe deforestation at one point to extensive regeneration at another point within two decades).

Now, the community forest has been established as a successful programme to improve the forest condition and livelihood of people (Agrawal and Ostrom 2001; Chakraborty 2001; Webb and Gautam 2001). Some of the crucial factors for the success of community forestry are dynamic and adaptive nature of the programme, restructuring and reformulation of policy and devolution of authority to local communities. Supportive policy framework has been the key factor that triggered motivation of local communities for their institutional arrangement to find themselves in transformed scenario and it got the greatest impetus after government legitimized the usufructuary rights of people (Hobley 1996).

The challenges such as fully empowerment of women, disadvantaged group and their role in leadership are highly prevalent and successes are not uniform throughout the country. Community forestry led devolution revolution (Thoms 2008) not only within the forestry but also in other sectors like watershed management and protected area management. Due to community forestry, society has been transformed as decentralized, participatory and equitable. However, as Nelson and Wright, (1995) stated, with devolution, there is a potential for either genuine local empowerment or abuse of new sources of power by local elites (Thoms 2008). Due to the former kind of output from devolution, community forestry is highly touted as the successful participatory model. But, at the same time the later types of output are also equally prevalent. Therefore, higher degrees of challenges such as centralized decentralization

(Hobley 1996; Giri 2006), participatory exclusion (Agrawal 2001), and not fully realization of equity, putting the last first (Chamber 1983) have emerged due to lack of perfectly good governance.

Though there are few discouraging social issues to be addressed, achievements in biophysical aspects such as restoration of degraded land, hill slope stabilization, biodiversity conservation, soil erosion control, reduced encroachment and sustainable harvesting of the forest product are very encouraging (Collett 1996). Despite of bottlenecks to evenly acquire successes throughout the country, achievements till date have reflected the great potentiality of community forestry. They have encouraged envisioning that achieving good forest governance, sustainable forest management and livelihood in each community forestry, Nepal can attain the national goal of poverty alleviation and global goal of sustainable development.

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Paper II

In the absence of their men: Women and forest management in the Mid-hills of Nepal

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In the absence of their men: Women and forest management in the Mid-hills of Nepal

Abstract

In Nepal, the management of community forests is based on the participation and decision making of forest users. The premise of its success is the involvement of the real users in forest conservation and management. The Nepal Forest Law identify women as key forest users and underlines the importance of their participation in community forest management. However, given the socio-cultural setting and the prevailing patriarchy, fostering women's active participation is challenging. Women are traditionally limited to private sphere and men tend to look after the responsibilities in the public sphere. However, the increasing trend of men's outmigration observed in the Mid-hills may offer a window of opportunity for women to become more involved in the public sphere and thus, be able to have a decisive influence in forest management issues. This paper investigates the factors that have increased the participation and decision-making level of women in two community forest user groups. Data were collected through focus group discussions, informal discussions and interviews with key informants. The results suggest that two key factors that allow women to take an active role in the management of community forests are: previous experiences with women's groups and the men's full support. Given the high prevalence of men's outmigration in the Mid-hills of Nepal, these results are relevant to formulate policies and strategies that foster women's empowerment.

Keywords: community forestry, community forest user group, men's outmigration, left-behind women, participation, decision-making, Kavre district, focus group discussion

Women's participation in community forestry

Promoting participation and decision-making of the less vocal and less powerful into participatory programmes has remained orthodoxy for development work. In the management of natural resources such as forests, the emergence and institutionalization of participatory programmes has taken various forms under umbrella terms such as social forestry, collaborative forest management or community forestry.

The concept of local people's involvement in natural resource use and management is not new. What might be new is the use of structured models of participation that are built around specific decentralized policy frameworks, to empower the local people. Community forestry is one of the highly acclaimed participatory programmes in Nepal that works along with the principles of decentralization (Winrock 2002). It aims to provide for the basic forest needs to the local people by bringing in their participation to

the programmes through the formation of community groups, widely known as “community forest user groups” (CFUG). CFUGs are cohorts of users of a certain forest at the local level (neighbourhood, ward or village) that enjoy use rights of the forest after the forest has been handed over from the state to the community. Each CFUG is governed by an executive committee that acts on the behalf of the general assembly of all members.

Participation is a dynamic process through which stakeholders of forest management institutions influence and share control over development initiatives, and the decisions and resources that affect them (Cornwall 2003). Participation in CFUG is defined in its narrowest sense in terms of nominal membership and in the broadest sense as a process in which the disadvantaged such as women have voice and influence in decision making (Agarwal 2001). According to Agarwal’s (2001) “ladder of participation”, participation is ‘passive’ if women may get some information about community forest management but lack any opportunity to make choices or influence the decisions, whereas an active participation is characterised as women’s increased voice and influence in different initiatives, whether solicited or not.

Whereas the participatory approaches and decentralized policies of community forestry promise inclusion by creating spaces to exercise decision-making and equitable development, claims to women’s participation and decision-making into such “participatory” processes has remained mostly a rhetoric (Buchy and Subba 2003; Gupte 2004). Indeed, evidence suggests that women’s involvement has mostly been “passive” in community forestry, represented in the form of women’s household entitlement to CFUG membership (Agarwal 2001; Cornwall 2003; Gupte 2004). As such, women are often simply position holders without the possibility to influence decision-making.

Empirical evidence indicates various factors that constrain women’s participation in community forestry. Some argue that the socio-cultural context of Nepalese society and the existing local power structure that provides more power to men can lead to “participatory exclusion” of women in community forestry (Agarwal 2001; Lama and Buchy 2002; Gupte 2004). The influence of the socio-cultural context may be maintained through resistance from village men on the basis of expected gendered roles and behaviours in the public sphere of forestry meetings (Agarwal 2000; Lachapelle et al. 2004; Upadhyay 2005), improper attention to women’s needs and aspirations regarding the timings of forest meetings, women’s lack of self-confidence (Lama and Buchy 2002; Lachapelle et al. 2004). As such, traditional gender roles assigning different responsibilities to women and men can also restrict women’s access to natural resources. As a result, women are frequently excluded from decision-making in community forest management.

While the effect of socio-cultural context of the community has been reported to affect women’s inclusion and decision-making in community forestry, social-cultural context are not static but undergo continuous negotiations, adaptations and changes under

different mediating factors. Men's outmigration has been widely reported as one such factor to bring forth negotiations and social transformation in the society by (re)structuring of traditional gender roles, increased access to resources and greater decision-making powers (Hadi 1999; Hadi 2001; Zachariah and Rajan 2001) and makes women more active in community development activities and farming (Thelma et al. 2005; Kaspar 2006).

Given the "passive" state of women's participation in community forest management and the potential of men's outmigration to mediate changes in social relations, this paper aims to explore and examine in what ways rural women's participation and decision-making in community forest management is affected by men's outmigration. It also offers indications of the impact of women's participation and decision-making in community forest management and the existing constraints and challenges they face.

Methodology

Site selection

The study was conducted in the Mid-hills, a mountain range that crosses Nepal from east to west, between the Himalayan range in the north and the Ganges River plain in the south. The altitude of the Mid-hills varies between 1.000 and 3.000 m. The Kavre district, some 70 km east of Kathmandu, was selected as livelihoods rely mostly on subsistence agriculture, livestock farming and forest resources (DDC 2007). Also, Kavre district borders Kathmandu and is well-connected to other major towns such as Dhulikhel and Banepa. Therefore, many men come to these cities either for study, work or business. In addition, Central Bureau of Statistics (CBS 2001) reports many of the men from Kavre districts go to other countries such as India, Malaysia and Saudi Arab for employment.

For this study, two CFUGs with a high rate of men's outmigration were selected. As official statistical data on migration is inadequate and often not available in Nepal, outmigration levels in Kavre district were assessed through discussions with key informants from District Forest Offices, range posts, District Development Committee (a local administrative unit acting at district level) and NGOs. This provided a preliminary list of areas within Kavre with particularly high rates of men's outmigration. Six CFUGs were then visited to check the rate of men's outmigration and other characteristics of the CFUG through discussions with members of the Village Development Committee (a local administrative unit acting at village level), school teachers, as well as members of the CFUG and its executive committee. Finally, two CFUGs – Chande Majuwa and Katunje Pakha – were selected, as both had a high rate of men's outmigration and an active participation of women in the CFUG. Also, the two CFUGs are similar in other important aspects, such as access to markets, income from the CFUGs and exposure to tours and trainings.

Data collection and analysis

Primary data was collected between November 2007 and January 2008 through focus group discussions, individual interviews and participant observation.

Three focus group discussions were carried out with ten women in each CFUG. Each focus group discussion took about two hours. The main issues discussed were the factors that motivated women to participate in community forest management, the resulting changes that took place after women started to participate, and women's perception regarding men's attitude towards women's participation in these CFUGs. The members of the focus groups were also asked to list the main influencing factors and to rank them.

Furthermore, informal discussions with male members of the CFUG were conducted to assess their perception of women's involvement in community forest management in both CFUGs. Additionally, individual interviews with key informants such as the school teacher, forest rangers, and local tea-shop owners were conducted to explore the issues of forest condition and management. The data was transcribed, analysed qualitatively and triangulated with secondary information obtained from the minutes, constitutions and operational plans of the CFUGs.

Results and discussion

Factors influencing women's participation in the management of the community forest

Forest management in both CFUGs started about 25 years ago through a reforestation project (Nepal Australia Forestry Project), funded by Australia. Both community forests were formally handed over to the CFUG about 15 years ago. At that time, women's participation was predominantly passive. Male CFUG members held meetings and took decisions while women were barely – if at all – informed about the timing and/or outcome of these meetings. Women were unaware of the functioning of the CFUG and the potential benefits they could gain from the use of CFUG funds. However, in the last five years, women's awareness and stake in forest management has increased, so that it can now be described as active participation in decision-making.

As the main factors that allowed for this increased participation and active engagement in the decision-making within the CFUG, the women in the focus groups stated that collecting forest products is their responsibility, and that through their increased awareness of the importance of the CFUG and their confidence in their own abilities to manage the CFUG, they started to take a more active role in the management of their community forest (see Fig. 1).

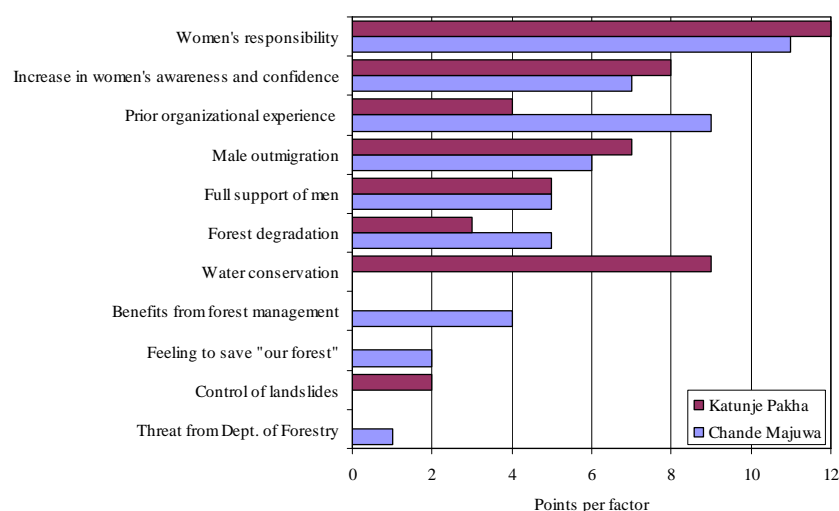


Figure 1: Weighed ranking of factors that motivated women to participate in community forest management

Note: Each of the 10 women participating in the focus group was given 5 points to distribute among the factors listed. Not all factors were listed in both CFUGs.

Forest and water are women's responsibility

Since in Nepal the collection of forest products such as fuelwood, fodder, grass and bedding material is mainly women's responsibility (Buchy and Subba 2003; Upadhyay 2005), women in both CFUGs started to face problems in meeting their household requirements as the state of the community forest degraded. Pressured to meet their household duties, women started to sneak into nearby community forests or national forest to collect forest products. However, these were farther away, so that the women had to spend more time to collect the forest products. Also, if the women were caught stealing the forest products from other CFUGs or national forest, they had to face penalties for misbehaviour and public shame. Securing a regular flow of forest products therefore became a core issue for the women, encouraging a more active participation in their own CFUG.

Women's increased awareness and confidence

The adult literacy programmes conducted by the Village Development Committee in both CFUGs provided a venue where women could sit together and learn in groups. This opportunity for information exchange made them more aware about the benefits they could potentially derive from forest management, such as planting medicinal plants in the forest to generate an income, or using CFUG funds generated from wood sales to address community problems.

Prior experience in organization

At the same time, women had the opportunity to get involved in some other organizations. In Chande Majuwa, women started a 'saving and credit scheme' where

each woman had to contribute 100 Nepalese Rupees (NRs.) per month. This allowed the women to set up a revolving fund which was used to solve the problems of member households in times of need. This experience provided women with the feeling that, if they organized themselves, they could solve their problems on their own, i.e. they did not always have to depend on their husbands or on another male household member. It strengthened the women's feeling of self-confidence and showed them the potential benefits they could derive from a successful organization. It also increased men's awareness and acceptance that women can successfully lead organizations. In the words of a woman in the focus group:

“Before, women in these villages were limited to performing assigned duties within their household only. But after being involved with the saving group, I also took on responsibilities of my household just like my husband. This has increased my self-esteem in my family as well as in society.”

Focus group discussion, Chande Majuwa CFUG

Women in Katunje Pakha participated in a programme for children and women, initiated by the Katunje Village Development Committee, called DOCAW, which provided training to raise women's awareness of their legal rights. Participation in this training has enhanced women's knowledge and awareness of their rights and thus their self-confidence:

“Before, I did not know anything. Participation in DOCAW made me aware about my own rights as a woman. It has also increased my self-confidence and capability to voice my concerns in public meetings.”

Focus group discussion, Katunje Pakha CFUG

The high rate of men's outmigration

The former Executive Committee of the Chande Majuwa CFUG was a men-only committee. When they made decisions about forest regulations, women tended not to receive any information about the timing of meetings or the decisions taken:

“Earlier we did not even hear about meetings. Men used to do that. They also did not use to share information. We didn't even know when the forest was opened and closed. We thought that it was only men who should held meetings and make decisions.”

Focus group discussion, Chande Majuwa CFUG

In Katunje Pakha, women were formally included in the initial Executive Committee, but men monopolized the decision-making, so that the women ended up not participating in the meetings.

When the rate of men's outmigration increased, this led to a lack of guidance within the CFUG. Indeed, in Chande Majuwa most of the male members of the Executive Committee left for cities in search of better employment. Thus, the men were no longer present and able to provide the time required to solve the various problems in the community forest. As a result illegal tree felling and forest encroachment was rampant in

both CFUGs. In Katunje Pakha, forest degradation led to issues of water scarcity and landslides, which were a core concern of the women.

Full support of village men

Given their inability to cope with the rampant forest degradation, combined with an increased confidence in women's ability, men in both CFUGs finally encouraged women to come to the fore and take part in decision-making on protection, management and use of the community forest. In both CFUGs, women perceived that male members fully supported their engagement. Men thought that if women participated in decision making, introducing women's perspective and concern, the forest would be better cared for. Indeed, since it is mostly the women who go to forests to collect forest products, they tend to be the most knowledgeable (Agarwal 2000; Upadhyay 2005) about the forest condition, areas of illegal felling and even the illegal encroachers. In Chade Majuwa – combined with the outmigration of the male members of the Executive Committee – this led to the formation of an all-women Executive Committee, in Katunje Pakha the women's share was increased to 50% of the committee members (up from 10% about four years ago).

Family composition and remittances as mediating factors

A left-behind woman has to cope with new responsibilities in the absence of her husband. Such new responsibilities can lead to stronger exposure to the public sphere, as is the case with decision-making in the executive committee or the general assembly of a CFUG. This particularly applies to women living in a nuclear family without any adult son. In the absence of their husbands, these women started to attend public meetings and forest assemblies. This public exposure provided them with a new opportunity for learning and information sharing. With it, their interest in the management of the CFUG increased. This public exposure also provided them with enhanced negotiation skills and allowed them to voice their concerns related to forest management, thereby influencing decision-making.

However, in extended families, the responsibilities of the man who had outmigrated were taken up by another male member of the family, e.g. a father-in-law or brother-in-law. Thus, in both CFUGs, left-behind women who lived in extended families participated less in forest meetings and assemblies, compared to those living in nuclear families. These results are congruent with other studies that analyzed gender relations within households (Zachariah and Rajan 2001; Kaspar 2006).

All the left-behind women reported that their husband used to be a major source of information about issues in the public sphere, e.g. the time and location of CFUG meetings and decisions taken in assemblies. When their husbands left, they lost this prime source of information. Whereas women in joint families relied mostly on other family members (male or female) to obtain such information, women in nuclear families relied mostly on neighbours and relatives. However, if the left-behind women in nuclear

families were not satisfied with the information provided, they had a strong incentive to attend the next meetings themselves.

Existing literature indicates that left-behind women tend to have a high workload (Thelma et al. 2001; Gurung and Gurung 2002). In the focus groups, although the left-behind women reported that their workload had increased, it did not hamper their participation in community forest management. Indeed, the women noted that they were happy to attend forest meetings and general assemblies as such meetings provided them new avenues for learning, thereby supporting their self-development.

Another issue is the remittances that outmigrated men send home and the control over this new resource. In extended families, it is mostly the male member of the family who handles the remittances. Still, women's opinion on their use is heard, even if they often end up being used to purchase land or to build a house. In nuclear families, usually the left-behind woman shares decision making with her outmigrated husband and thus, has more influence on the use of remittances. Some families, both extended and nuclear, have invested a part of the remittances to purchase alternative sources of energy, e.g. gobar gas. In these cases, the remittances helped to reduce the women's dependency on forest resources, especially fuelwood.

Impact of women's engagement in community forest management

Women in both CFUGs perceived that their involvement in community forest management yielded many benefits. The forest is now better protected, and the forest condition has also improved in terms of forest regeneration. Women now have easier access to forest products such as fuelwood, fodder, grass and bedding material from their community forest. Women's active involvement in the CFUG has helped to draw attention to women's concerns and identify possible solutions to address them. Indeed, now that women take part in the meetings, they can voice their ideas and influence the decisions. Women are also better able to ensure that the funds generated in the CFUG are used to address their livelihood issues. Moreover, participation in the CFUG has exposed the women to public meetings and speaking in public. Successfully meeting this challenge has increased women's self-esteem and confidence.

Constraints and challenges to women's engagement

Despite women's active engagement in community forest management, women still feel hindrances owing to their level of education and knowledge about legal and financial aspect of community forest management. Most of the women in both CFUGs are illiterate or just literate. Therefore, women tend to develop a feeling that "they might do something wrong" if they undertake legal or financial management of CFUGs:

"In one of the Executive Committee meetings, male members of the Committee were suggesting that this CFUG should be converted into a women's-only Committee. They also asked my opinion

about it. I felt a bit troubled wondering how women could deal with financial matters of forest management on their own. Most of us are illiterate. How could we handle the required skills to maintain the minutes and financial records?”

A member of the executive committee of the Katunje Pakha CFUG

Though women fully acknowledged men’s support behind their participation in forest management, they also felt unsettled by men’s desire to use the CFUG funds according to men’s own interests. In Katunje Pakha, male members of the Executive Committee put the CFUG fund in a bank, despite female members’ preferences to set up a revolving fund to provide “easy loans” to needy families in the community. During the focus group discussion, women also mentioned so other conflicts regarding the use of CFUG funds:

“Once, a few men came to us and requested a grant from the CFUG fund to construct a road nearby. All the women signed to allow cutting trees from the community forest to raise about Rs. 35,000 for constructing the road. Later we came to know that only a small amount was used for road construction, the rest was used up by the men themselves. We felt cheated, but this event has made us more careful.”

Focus group discussion, Chande Majuwa CFUG

Conclusion

Community forestry in Nepal is one of the highly acclaimed participatory programmes that aim to encourage the participation of local people, mainly women, in forest management. Yet, women’s inclusion and active participation in decision-making remains as a challenge, and is often mere lip-service. However, the men’s outmigration, which is becoming a widespread phenomenon in the Mid-hills, could potentially mediate social changes. This exploratory study was conducted to assess and analyze under which conditions men’s outmigration could lead to women’s increased participation in the management of community forests.

As the cases of Chande Majuwa CFUG and Katunje Pakha CFUG indicate, men’s outmigration can indeed open a ‘window of opportunity’ for women. As women carry the prime responsibility of collecting forest products, they tend to be more concerned about sustainable forest management. Positive experiences in organisational management – e.g. of a savings group – or participation in a women’s rights programme, increases the women’s confidence and self-esteem as well as their awareness of the options they have. Under these conditions, with the men’s support, women are willing to take on new challenges and seize the opportunities that can arise from men’s outmigration. The extent to which left-behind women actually become actively engaged in community forestry management seems to depend to a large part on them being in a nuclear family and feeling that the information about the community forest they get from their social networks is not satisfactory.

Given the increasing rate of men's outmigration in the Mid-hills of Nepal, there is a tremendous scope to encourage women's participation in community forestry. To realise this potential, further research is needed to identify the factors that foster women's participation and their interrelations.

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Paper III

Outmigrating men: A window of opportunity for women's participation in community forestry?

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The paper has been through the first review and the editor has accepted it for publication after minor revisions.

Outmigrating men: A window of opportunity for women's participation in community forestry?

Abstract

Encouraging women to become active participants has been an important goal of the community forestry programme in Nepal. Achieving this goal has been elusive, and studies have identified a range of formal structures and informal processes that can exclude women. In this study, we explore if there is a relationship between men's outmigration and women's participation in community forestry. Data were collected using a semi-structured survey, in-depth interviews and focus group discussions with women from two community forest user groups. Our analysis indicates that men's outmigration provides a 'window of opportunity' to increase women's participation, as the left-behind wives were more likely to attend the general assembly and voice their opinions during the general assemblies. However, the extent to which outmigration represents an opportunity depends on family type and composition. The women who do not have an adult man in the household are those who become most involved in the community forest user group. They devise different strategies to contest traditional roles and identities, become involved in forest management, and subsequently achieve increased participation in forest decisions.

Keywords: decision-making, left-behind women, migration, community forest user groups, Mid-hills, Nepal

Introduction

In a globalized world characterised by regions differing in their economic dynamics, migration is widespread. Migration from rural to urban areas or to other countries in search of employment is common in developing countries such as Nepal (NIDS 2007). Research on migration has mostly focused on understanding the structure and drivers of migration (Graner 2001; KC 2004), on the economic role of remittances (Seddon et al. 2002; Thieme and Wyss 2005) as well as on the migrants' networks (Rigg 2006). The social and cultural impacts on the communities of origin have so far not been studied extensively (Hadi 2001; Biao 2007). However, in societies in which men are responsible for representing the interests of the family in the public sphere, widespread outmigration of men is likely to have fundamental impacts both at the household and the community level. The wives of migrant men, i.e. the left-behind women, will not only have to take care of household tasks traditionally performed by men (Khaled 2002; Kaspar 2006), they will also have to venture into the public sphere to represent the family in community institutions.

One such institution is community forestry which plays a key role in securing forest resources for the household, such as fodder, firewood and timber. As there are few forests women can access freely, these resources mostly come from a forest managed by a local user group-commonly called as 'community forest user group' (CFUG). Although women are considered responsible to collect forest products, traditionally it is the men who represent the household during the general assembly and other meetings of the CFUG. During these meetings and in the general assembly, decisions pertaining to the management of the community forest are taken following a deliberative process. To maintain their membership, each member household must have at least one person present.

Although the community forestry programme has made substantial efforts to be gender inclusive, women have so far played only a subordinate role (Agarwal 2001; Buchy and Subba 2003). Women's active participation in decision-making has been hampered by a range of factors, such as women's traditional deference to men, their lack of experience with voicing their views in a public setting (Shrestha 1999; Chhetri 2001), their lower education level (Lise 2000; Lama and Buchy 2000) or their lack of access to employment (Ghimire-Bastakoti and Bastakoti 2006).

In this paper, we explore whether men's outmigration can open a 'window of opportunity' for women to engage actively in decision making within their CFUG. Indeed, if the man, usually the head of household, is not present, and given that each member household is required to attend the general assembly, necessity might push women into the public sphere. As previous studies indicate, the extent to which women will engage in the public sphere is likely to be affected by factors such as wealth, position within the family, family type (Shrestha 1999; Buchy and Subba 2003) and migration pattern (Hadi 2001).

Methods

Selection of the study area

Ramechhap district, some 220 km east of Kathmandu, in the Mid-hills of Nepal, was selected for this study as a high share of men migrate, and as it has a reputed history of forest restoration through the community forestry programme (NSCFP 2004). Key informants from District Forest Offices, District Development Committees, range posts, and NGOs were asked to name CFUGs with high rates of outmigration. From this preliminary list of CFUGs, those that had received support from the Nepal Swiss Community Forestry Project were selected. This allowed building on established relations of trust, which was important to secure access to the CFUGs, especially as data collection took place during a politically fragile period (end of the Maoist insurgency, see Karki and Bhattarai 2004). This short-list was further restricted to those CFUGs which were very similar regarding their ethnic composition, forest area per

household, forest condition, access to road and markets, and overall economic situation. From the resulting list of six potential CFUGs, two were randomly selected: Majuwa Bhumithan and Dugursingh Hup. Including two CFUGs allowed for a larger sample size and gave the opportunity to include a wider variation in strategies to cope with men outmigration.

Data collection

Data was collected in three steps between October 2007 and February 2009. In a first step, to assess whether there is a relationship between men's outmigration and women's involvement in the CFUG, a questionnaire-based survey was administered. The households were first divided into two cohorts- (a) households with married migrant men and (b) households with married men at home. All households from both cohorts from each of CFUGs were surveyed, if they were reachable, willing to participate in the study and if they had at least a married couple (thus, households of widows, widowers, or divorcees were not included since they do not allow to study the dynamics of gender roles). A total of 186 households were surveyed, with the wife of the household head or of the migrating man answering the questions. The survey included questions on the participation in silvicultural activities, attendance at general assemblies, whether the women voiced their views at or before the assemblies, whether they felt they could influence the decisions taken, as well as the general household characteristics. In a second step, to better understand how husband's outmigration affected their wives, 30 left-behind women were purposively selected to cover a range of education levels, household types and family composition. These women were interviewed using a semi-structured interview format that focused on their personal experiences in coping with their husband's outmigration. The interviews took approximately two hours each. In a third step, five group discussions were held: two with women living in a nuclear family, two with women living in a joint family and one with a combination of both. During the group discussions, the 40 women were encouraged to discuss their personal experiences as well as how they perceived men's outmigration to affect the community as a whole. Each discussion took about four hours. Both the semi-structured interviews and the group discussions were tape-recorded after receiving permission from the women.

Data analysis

The quantitative data collected in the survey was analysed using SPSS. First some descriptive statistics were calculated to characterise the surveyed households. To analyse the factors affecting the women's participation in the CFUG, two proxy variables were selected: (1) attendance at the general assembly, (2) whether the woman voiced her opinion on upcoming forest management decisions during the general assembly or during earlier preparatory meetings. Both proxy variables were ranked on a 3-point scale, ranging from 'never' to 'sometimes' and 'often'.

Regarding the factors that might affect women's participation, we first analyze differences between left-behind women and women whose husband is at home, using Chi-square tests. Secondly, we focus on the variables that can explain differences within left-behind women. To assess the statistical significance of the variables, we use Chi-square tests as well as an ordered logit regression. Ordered logit regression was selected as the 3-category dependant proxy variables are neither continuous nor normally distributed (Norušis 2008).

The qualitative data from the interviews and the group discussions was examined using content analysis (Berg 2009). The focus was on identifying those causal relationships, as perceived by the women, which explain the result of the statistical analysis of the survey data.

Results

Characteristics of the CFUGs

In both CFUGs, the dominant ethnic groups (Tamang and Magar) do not have a caste hierarchy and there is little difference in wealth between CFUG members. All rely heavily on forest resources, and fuelwood is their only energy source for cooking. Due to the poverty prevalent in these communities, outmigration is a widespread livelihood strategy. Of the 186 surveyed households, 16.1% of the interviewees' husbands migrate between 6 and 12 months per year, mostly to larger towns within Nepal, to work as wage labourers in carpet weaving, brick kilning or as taxi drivers. Some 32.8% of interviewee's husbands migrate for more than 12 months at a time, mostly to India or the Gulf states. The household types were distributed nearly equally: 44.6% of surveyed households are joint households, i.e. in-laws or siblings share the same household, where as 55.4% of surveyed households are nuclear, i.e. composed only of the husband and wife, as well as their children. The majority of the surveyed women (61.8%) were illiterate. However, 25.8% had attended formal schools and 12.4% had attended adult literacy classes. The average age of the surveyed women is 33.2 years. Nearly half (44%) of left-behind women are engaged in self-employment, mostly selling vegetables or alcohol.

Differences between left-behind women and women whose husband is at home

Although the vast majority of women are involved in collecting forest products, only half of the surveyed women (50.7%) stated that they attend general assemblies at least occasionally. Left-behind women are not only more likely to attend general assemblies; they are also more likely to attend them regularly (Table 1). Only a third of all surveyed women (32.8%) stated that they voiced their opinions before or during general

assemblies. Here also, left-behind women are more likely to express their views (19.8%) compared to women whose husband are at home (5.3%), a difference that is statistically significant (Table 1). These findings indicate that there are significant differences between the two groups of women (Table 1). Left-behind women are significantly more likely to be present at the general assemblies, where decisions regarding the management of the community forest are discussed and taken. They are also significantly more likely to raise their concerns and influence forest management decisions.

Both the in-depth interviews and the focus group discussions with left-behind women have confirmed that their behaviour in relation to attendance at the general assemblies and to voicing their views regarding forest decisions has changed after their husbands outmigrated. Left-behind women had to take up the roles and responsibilities of their husbands, both at the household and in community institutions. Left-behind women had little choice, given the importance of attending the general assembly to continue the membership at the CFUG and thus, maintain access to forest products.

Table 1: Differences between left-behind women (n=91) and women whose husband is at home (n=95)

Variable description	Answer categories	Left-behind women (% per category)	Women with husband at home (% per category)	X ² test (p values)
Attendance at the general assembly	Often	45.1	17.9	0.001**
	Sometimes	11.0	27.4	
	Never	44.0	54.7	
Voicing their opinion	Often	19.8	5.3	0.010*
	Sometimes	17.6	23.2	
	Never	62.6	71.6	
Involvement in forest product collection	Often	78.0	66.3	0.205
	Sometimes	15.4	23.2	
	Never	6.6	10.5	
Dependent on fuelwood from CFUG	Very much	53.8	52.7	0.231
	Somewhat	27.5	36.3	
	A little	18.7	11.0	
Family type	Nuclear	38.5	71.6	0.001**
	Extended	61.5	28.4	
Education level	Illiterate	47.3	75.8	0.001**
	Literate	52.7	24.2	
Mother-in-law in the household	Yes	57.1	21.1	0.001**
	No	42.9	78.9	
Adult men in the household	Elderly	25.3	4.2	0.001**
	Young	7.7	73.7	
	Both	20.9	22.1	
	None	46.1	0.0	
Adult son in the household	Yes	9.9	25.3	0.005**
	No	90.1	74.7	

**Significant at 1% level *Significant at 5% level

Differences within left-behind women

The left-behind women are not a homogeneous group, however. Especially the household type has a significant influence on whether the women attend the general assembly and voice their opinions (Table 2). If the left-behind women live in a joint household, she is less likely to attend the general assembly than if she lives in a nuclear household (32.2% vs. 84.3%). As expressed during focus group discussions, in joint households, it is likely that some other family member, such as a father-in-law, a brother-in-law or an adult son, will take up the outmigrated husband's role and responsibilities. Indeed, the presence of adult men in the household is significantly associated with the left-behind's women attendance of the general assembly (Table 2). The type of adult man (such as father-in-law or son) present at home can again lead to variation. About 25% women with elderly adult men at home do attend the general assembly, compared to 83% of women with young adult men such as a son. However, not only do other men take over the roles of the outmigrated husband, they can also be taken over by senior women, such as the mother-in-law (Table 2).

If the left-behind woman lives in a nuclear household, she is very likely to take up the role of her migrating husband. Having an adult son does not influence her attendance at the general assembly (Table 2). During the focus group discussions, this was explained by the fact that adult sons tend to reside in a different town for educational purposes and thus, are not able to take over the roles and responsibilities of their father.

Surprisingly the migration pattern does not have a significant influence on left-behind women's attendance at general assemblies (Table 2). The in-depth interviews revealed that this is linked to husband's individual preferences. In some households, husbands encourage their wife to attend the general assembly even if he is back at home, as he does not feel sufficiently informed to represent their household at the general assembly. However, other husbands prefer to attend the general assembly themselves whenever they are at home.

Left-behind women who are self-employed are significantly more likely to express their opinions regarding forest decisions (Table 2). However, there is no significant relationship with the attendance at general assembly. The focus group discussions revealed that women who are self-employed have experience with being exposed to the public sphere and gained confidence in voicing their opinion. However, due to their work commitment, they are not always able to attend the general assemblies.

Whether the left-behind women are literate or not has no significant influence on them attending the general assembly or voicing their opinions. This indicates that although illiterate women might not be able to read the written documents of the CFUG, it does not influence their commitment to attending the general assembly and voicing their opinions.

Table 2: Variables influencing left-behind women's attendance at general assemblies and voicing their opinions at or before general assemblies (n=91)

Variables	Description of variables	Attendance at general assemblies		Voicing her opinion	
		χ^2	p-value	χ^2	p-value
Household type	nuclear / joint	44.267	0.000**	10.503	0.005**
Adult men in the household	yes / no	33.069	0.000**	10.633	0.005**
Type of adult men	elderly / son	14.639	0.001**	2.609	0.271
Presence of mother-in-law	yes / no	39.042	0.000**	6.611	0.037*
Adult son in nuclear family	yes / no	1.347	0.510	0.809	0.667
Migration pattern	6-12 months / > 12 month	1.162	0.559	3.810	0.149
Education level	Illiterate / literate	4.133	0.124	0.216	0.898
Self-employment	yes / no	4.648	0.098	10.364	0.006**

Degree of freedom: 2

**Significant at 1% level

*Significant at 5% level

Regression analysis

The three-ordered regression analysis allows to identify significant independent variables that influence left-behind women's attendance at general assemblies and voicing their opinions about forest decisions. The regression analysis also estimates the direction of such relationship based on the sign (+ or -) of regression coefficients. The log likelihood test also showed that the regression models fit the data and they have good explanatory power. Since the presence of an adult man or of a mother-in-law is tightly related to the household type, they are excluded from regression analysis. The presence of an adult son in a nuclear family is also eliminated, as we do not have a large-enough sample to be able to include it in an ordered regression.

Both household type and self-employment are significantly and positively related to left-behind women's attendance (Table 3) and expressing their opinions regarding upcoming forest decisions (Table 4). Education and migration pattern were not significantly related to left-behind women's attendance and influence in forest decisions.

Table 3: Ordered logistic regression predicting left-behind women's attendance at general assemblies

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	3.775	0.687	0.001**	3.597
Education level (1=illiterate)	-0.214	0.553	0.699	0.807
Self-employment (1=yes)	1.031	0.519	0.047*	2.803
Migration pattern (1= < 12 months)	0.342	0.534	0.522	1.407

LR χ^2 (4 d.f.) = 54.657, Prob > χ^2 = 0.001 Log pseudo likelihood = -102.506

**Significant at 1% level *Significant at 5% level

Table 4: Ordered logistic regression predicting left-behind women voicing their views of upcoming forest decisions

Independent variables	Coefficients	Std. Error	p-values	Odds ratio
Household type(1=nuclear)	1.478	0.501	0.003**	4.384
Education level (1= Illiterate)	-0.574	0.498	0.249	0.563
Self-employment (1=yes)	1.263	0.469	0.007**	3.536
Migration pattern (1= < 12 months)	-0.612	0.524	0.243	0.542

χ^2 (4 d.f.)= 22.509, Prob > χ^2 = 0.001 Log pseudo likelihood = -84.557 **Significant at 1% level

The regression analysis also shows that, when holding other variables constant, the odds for a left-behind wife living in a nuclear family to attend general assemblies is 43 times higher than the odds of left-behind women living in a joint family (Tab. 3). The odds of a left-behind woman living in nuclear family voicing her opinion is four times higher than the odds of a woman living in a joint family (Tab. 4). The odds of women who are left-behind and self-employed to attend general assemblies are nearly three times higher than those who are not self-employed (Tab. 3).

Discussion

Women's participation in the management of a community forest is influenced by a number of individual and social factors (Lise 2000; Agarwal 2001; Lama and Buchy 2002; Adhikari et al. 2004). This study analysed the extent to which men's absence due to migration, can open a window of opportunity for women to become more involved in the decision-making of the CFUG.

The findings indicate that women whose husband outmigrate are significantly more likely to attend general assemblies than women whose husbands are at home. This confirms the earlier findings that the absence of men can lead to restructuring social roles and responsibilities both within households and within community institutions (Zacharia and Rajan 2001; Karki and Bhattarai 2004).

However, the household type (extended or nuclear) and composition (presence of adult men or older women) are important factors modifying the impact of outmigration on the left-behind women. Indeed, not all left-behind women were equally likely to attend general assemblies or to voice their views before or during the assemblies. Women living in nuclear families, especially when they did not have another adult in the household, were the most likely to become actively involved in the decision-making of the CFUG. Earlier studies (Hadi 2001; Kaspar 2006) also indicate the role of household type. Being self-employed also had a significant impact on the women voicing their opinions.

These results need to be understood in the context of the CFUGs studied: they are characterised by low income levels and high dependence on the CFUG especially for fuelwood. Retaining the membership of the CFUG by attending the general assemblies was thus a high priority for the women. As both CFUGs are characterised by a high share of men leaving the community to search for employment (over 50% outmigration rate), the community might display a higher level of understanding that adjustments need to be made and thus, might be more willing to accept untraditional behaviour by left-behind women. This acceptance might be reinforced by the pressure by the Department of Forest to include women in the management of the CFUG. Since good working relations with the Department of Forest are important to community leaders, this external pressure can enhance the acceptance of women attending public meetings such as the general assembly. Each of these contextual factors, as well as their interplay, can have an important role in enabling left-behind women to engage in the public sphere.

This study does not allow assessing to which extent left-behind women's attendance at the general assembly is the beginning of a wider engagement of women in the CFUG or in the public sphere generally. Some studies on the effect of outmigration in Nepal have indicated that, after their return, men tend to reclaim their pre-migration roles and decision-making competencies (Miller 1990 in Kaspar 2006; Kaspar 2006). However, other studies indicate that outmigration can permanently alter traditional mores and culture, so that women can have more freedom and decision-making powers, even after their husband returned home (Hadi 2001).

Conclusion

The study shows that under certain conditions a high rate of outmigrating men in search of work can open a window of opportunity for women to participate actively in the management of community forests. Whereas women have traditionally participated in the silvicultural activities of the CFUG, their presence and active involvement in decision making is very recent. Given the aim of Nepal's forest policy, to institutionalize gender equity and promote democracy through the community forestry programme, supportive measures should be provided to sustain women's entrance in the public sphere. Such a policy support, can add to the progressive redefinition of social structures and norms, even after the husband returns home.

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Paper IV

Nepali women using community forestry as a platform of social change

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Nepali women using community forestry as a platform for social change

Abstract

Successful implementation of decentralized programmes such as community forestry depends on participation of local users. Although women have been recognized as the primary users of forests, they are widely reported as marginalized in decision-making processes. Previous studies mostly take a static view, focusing on exclusionary structures to explain how and why women are marginalized. A focus on social change processes would allow better understanding of whether and how women use interactions with the executive committee or during general assemblies to renegotiate their social role and rights. Based on survey, interviews and group discussions in two community forest user groups, we argue that women are engaged in an on-going contestation of current structures to widen their participation in decision making and become increasingly active agents in community forestry. We point out the need to understand participation as an on-going and open-ended process of social change rather than as a predefined outcome.

Keywords: management of natural resources, gender, participation, perception, decision-making, Nepal

Introduction

Nepal initiated its community forestry programme in the late 1980s with the twin goal of conserving natural resources and providing local users with forest products. Community forestry is widely recognized as a promising approach to forest management and governance, especially regarding its ability to improve the condition of forests (Banjade and Ojha 2005; Gautam and Shivakoti 2005; Koirala et al. 2008; Thoms 2008). Currently Nepal has some 14,400 community forest user groups (CFUG) involving over 1.6 million households (DoF, 2007). By devolving management rights to local user groups, the programme also aims at contributing to social equity by securing resources for disadvantaged groups, such as the poor, low caste and women (Acharya 2002; Adhikary 2002). Indeed, in rural Nepal, forests are a key natural resource that provides leaf litter, firewood, fodder, grazing resources as well as timber. Given women's role in collecting forest resources and their substantive knowledge about the local ecology, there has been a clear recognition that 'gender' is relevant in community forestry, leading studies to focus on the extent of women's participation in the user groups.

These studies have identified various mechanisms of "participatory exclusion" (Agarwal 2001a:1623) that disadvantage women, both regarding access to resources and active

participation in the decision-making mechanisms within the CFUG (Agarwal 2001a; Agarwal 2001b; Lama and Buchy 2002). This recognition was followed by policy initiatives to increase women's inclusion in the decision making bodies of the community forestry: the Ninth Five-year National Development Plan 1997-2002(NPC 1997) provides directives for the inclusion of women in the executive committee of the CFUG; the Operational Guideline of the community forestry programme 2002 (HMG/N 2002) requires that for each household one man and one woman must be included in the list of members. Although these gender-friendly policies have done much to increase the formal inclusion of women in the decision making bodies, studies point out that women still tend to be excluded from active participation in decision-making (Buchy and Subba 2003; Gupte 2004).

The questions thus remain whether exclusion and inequality are maintained over time, and what processes can induce change. Understanding processes of change is crucial to identify approaches that could lead to equity in decision-making and transformative participation by women and other disadvantaged groups. Previous studies have mostly emphasized the need for different structures to induce change (Lama and Buchy 2002; Gupte 2004; Thoms 2008). These approaches tend to depict women as powerless victims, as passive receivers of development and thus as dependent on external interventions. Although we agree that structural change and external interventions are important leverage, they are not sufficient to induce social change. We want to draw attention to the women's agency, to their active engagement with the space offered by these structural changes. Building on Nightingale's (2006) understanding of gender as process, as being recreated and changed in daily interactions, we focus on how the women can use the CFUG as a platform to contest and reconstruct their roles and rights.

The paper starts with a brief overview of the theoretical background on understanding change through creative acts in daily social encounters, before presenting the results of a case study of two CFUG. Based on a survey, interviews and group discussions, we present women's perceptions of decision making processes within the executive committee and the general assembly of their CFUG. We analyze how the women use current structures to widen their room to manoeuvre by contesting the traditional right of the men to be sole decision-makers. We show that although such acts might not always yield results that can be easily measured by development planners or evaluation analysts; they are part of a process of adjustment and adaptation over time. Our aim is thus to understand processes of social change, rather than limiting ourselves to measure participation outcomes.

Understanding women's agency in community forestry

Many studies assessing the participation of women in community forestry, specifically their ability to influence decisions, take an institutionalist approach. They assume that outcomes of collective action are determined by the institution's design principles (Ostrom 1990; Agrawal, 2001) and that the effects are largely governed by underlying social norms, which tend to be seen as stable (Lama and Buchy 2002; Gupte 2004; Ojha et al. 2009). They thus draw attention to various barriers to women's participation and identify a range of strategies that can induce change by external action and novel structures. These include revising legal provisions, setting adequate meeting times, organizing neighbourhood meetings, creating women-only groups, improving literacy, providing self-confidence training, and reducing women's work burden (Armitage and Hyma 1997; Agarwal 2000; Lama and Buchy 2002).

The identified barriers are certainly real and the strategies valid to increase women's participation in Community Forestry. However, these studies have paid little attention to endogenous processes of change, especially social processes involving continuous negotiation and change (Axelby 2007; Shortall 2008). Theories of social constructivism point out that interaction are based on the way agents socially construct their everyday realities (Steins and Edwards 1999). Processes within the CFUG are thus constructed (and reconstructed) by the people themselves. An explicit focus on the women's constructions, on their perception of processes within the CFUG can thus shed light on the complexities involved in the evolution of collective action and help us understand its dynamic nature. Indeed, communities and individuals are dynamic in that they are driven by an evolving set of beliefs and values. As experiences are processed, beliefs about the way the world functions, and the appropriate standards of human behavior for dealing with it, are continually adjusted (Fussel 1996). As social reality evolves, new feasibilities open up, allowing breaking through previous limitations.

We build on Dalton (2004) in viewing individual agency, and the creative acts of these agents, as a microsocial source of structural and social change. Dalton (2004) defines creativity as the necessary adaptation of habitual practices to specific contexts. He points out that all acts are creative in that they require the innovative adjustment to particular circumstances that can neither be neither precisely foreseen nor completely routinized. Creative acts by women in the CFUG thus continually introduce novel possibilities, establishing new rights, and new behavioural norms.

Obviously, how a novel possibility plays out depends on the social judgments and responses it provokes. Other groups or individuals may use innovative acts for their own interests, may decide to adopt or to modify creative acts for other circumstances, may condemn them as subversive or dangerous for social stability, or may engage in a variety of contradictory responses that reveal ambivalence linked to conflicting social

pressures or positions (Dalton, 2004). We thus understand women as creative agents, who continually produce practical innovations in interaction with a social and physical environment that systematically limits, judges, and incorporates those creative acts into the ongoing stream of social life.

Social life tends to be structured by gendered social norms that exclude women from participating in decision making processes in a CFUG. In Nepal, women were traditionally confined to the private sphere, whereas men dominated the public arena and were in charge of taking decisions that affected the community. However, as with other social norms, gender division of labor, gender rights, and gender duties are prone to change, not least through the creative acts of women. Gender roles and rights within a CFUG are not pre-determined or immutable; they are constantly being renegotiated, contested, and reaffirmed through social interaction. Once gender is re-conceptualized as a process (Nightingale 2006), the dynamic relationship between gender and participation in community forestry can be brought into view. The women may use the public platform offered by the CFUG to redefine what is considered an acceptable behavior for women. They might use it to acquire skills that they so far had no opportunity to experiment with and thereby enlarge their room for manoeuvre. In a series of subtle changes, women might thus be able to increase their influence in the decisions governing the management of the community forest.

Study sites and data collection

This paper draws on data from two CFUG located in Ramechhap district, some 220 km east of Nepal's capital city, Kathmandu. Ramechhap was selected as it has a long history of forest restoration through community forestry programmes (NSCFP 2004). Based on expert assessment, six CFUG with a high level of women participation, good access to markets, good forest condition and similar ethnic composition were short-listed. The dominant ethnic groups are the Tamang and the Magar, who do not have a caste-based hierarchy. As field work took place during the civil war (Sharma 2006) the CFUG were selected in cooperation with the Nepal-Swiss Community Forestry Project, to gain good cooperation and environment of trust while collecting data. From the list of six potential CFUG, two – Majuwa Bhumithan (Majuwa) and Dugursingh Hup (Dugur) – were randomly selected as case studies. Selecting two sites ensured adequate sample size and some variation in the practices of the executive committee and general assembly. Both CFUG were established around 1998 and the forests are predominantly pine plantations (NSCFP 2004).

Data were collected during two periods: from October 2007 to April 2008 and from December 2008 to January 2009. First, preliminary interviews were held with members of the executive committee (men and women) in both CFUG (4 in Majuwa, 5 in Dugur). Secondly, a snow-balled sample of households to survey was drawn from the membership lists. The semi-structured interviews in the survey were conducted face-to-

face with 120 women in Majuwa (57% of the households), and 66 in Dugur (67% of the households). The interviews were conducted with the wife of the household head. The survey included questions regarding the respondent's understanding of the operational plan, the rights and responsibilities of the users, and the household's involvement in community forest activities. She was also asked about her attendance at meetings, whether she speaks up to voice her opinions, and whether she was consulted before decisions were taken. Thirdly, in-depth interviews were held with 30 women. These provided insights in the women's experiences and their understanding of the processes within the CFUG. Finally, five group discussions were held, in which a total of 40 women participated. These women were purposively identified from the surveyed sample to include women of different age, education level and family structure. Topics covered in the group discussions included women's perspective on how community forestry should be managed and how the women would want to participate in community forestry, the associated challenges the women face and how the women tackle these challenges. The in-depth interviews and group discussions were held by the first author in Nepali, transcribed, translated into English and analyzed using content analysis (Berg, 2009).

The women's perception of their CFUG

Perception of community forestry organization and of users' rights

All the interviewed women had a positive attitude towards their community forest user group, which is instrumental to overall performance of community based programmes (Matta and Alavalapati 2006; Allendorf et al. 2007). Since its establishment, they have access to forest products, which are protected since compliance to management rules is enforced. All women are actively engaged in silvicultural operations such as thinning or pruning, and regularly collect forest products.

Despite their involvement, few are aware of the documents which describe the formal organization of their CFUG (see Fig.1). Most of the respondents have never heard of the forest constitution. This document stipulates the rights and duties of the executive committee and of the CFUG members, as well as lists the names of members. Even fewer know about the Operational Plan, which includes the forest management plan, the harvesting regulations and the price of forest products. These are the two key documents of a CFUG. At the initial handing-over of the forest (i.e. when the boundaries of the forest were drawn, and its management (but not ownership) was handed over from the District Forest Office to the user group), they were written by the executive committee in consultation with a local NGO, and approved by the District Forest Office.

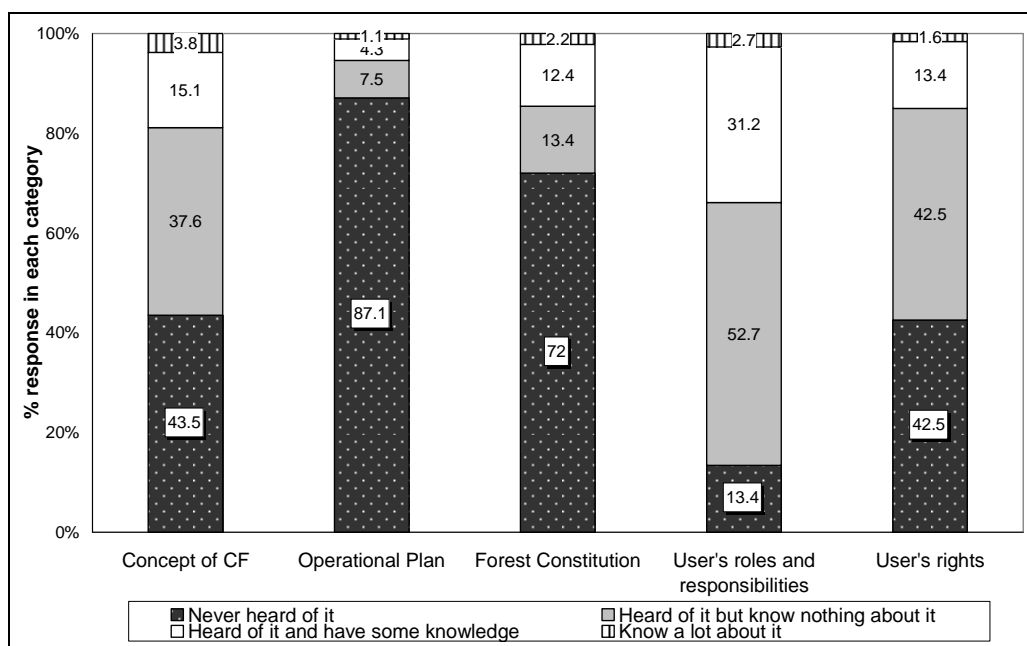


Figure 1: Respondents' knowledge of the formal documents as well as roles and rights in the user group

(Source: own survey, based on answers by 186 women)

The lack of knowledge about the regulations in the forest constitution can foster misunderstandings. For example, the member list in the forest constitution of both CFUG comprises a man's and a woman's name for each household, a fact that only 4.3% of respondents are aware of. More than 95% of respondents stated that only one person from their household has his name listed in the forest constitution. This person is assumed to be the head of the household: 51% stated that it is their husband, 24% their father in-law. This assumption is linked to the traditional deference to the male head of household, characteristic of a patriarchal society such as Nepal. The constitution states that "at least one member of each household should attend the general assembly", a fact that few women are aware of:

Only one person per household is called to the assemblies. So my husband, the head of the household, participated from my household. If two persons, both men and women have to attend general assemblies, I will start attending. [CT, Majuwa]

The poor flow of information thus leads to misunderstandings and erroneous perceptions about crucial issues such as the right to attend general assemblies or the ability to propose changes to the constitution. Indeed, although the constitution is updated every 3-5 years to adjust the provisions to the needs of the community, women perceive them as having a "legal" status and thus as "hard to influence and make changes" (BM, Dugur), rather than largely based on choices by the CFUG members. The fact that such misunderstandings are not cleared by the executive committee indicates that they use the knowledge about these key documents to symbolically distinguish between those who take decisions and those who actively work in the forest.

Perception of the executive committee and its decision-making process

To assess the perceptions regarding the central decision-making body, i.e. the executive committee, respondents were asked how committee members were selected. Surprisingly, about 40% of respondents do not know how the members of the executive committee are selected. A further 16% are unsure and provided a vague answer such as “it is a society’s decision, we all nominate”. Finally, 44% of respondents stated that the members are selected according to their abilities, where literacy plays a key role (see Table 1).

Table 1. Women’s statement regarding the attributes required to become a member of the executive committee (multiple responses were admissible)

Attribute	Description of the attribute by the respondents	Percent of respondents mentioning the attribute
Literacy skills	Educated, ability to read and write, ability to keep accounts	79
Rhetoric skills	Natural communicator, vocal, authoritative, ability to persuade or convince others, knows how to speak in public	55
Knowledgeable	Aware, clever, one who knows more	52
Personal skills	Skills for facilitation, discussions in public meeting, highly capable to take new initiatives	45
Committed to work	Active in social and community activities, trustworthy	45
Broad networks	Who has access and contacts at different places	27
Local elites	A combination of all or many of the attributes listed above many a times coupled with comparatively better economic position than the other households in a village.	21

(Source: own survey, answers by 82 women)

In both CFUG, women perceive that these key attributes are mostly found in men. Indeed, men are more likely to be literate, and tend to have more experience with public deliberations, given their traditional role as the household’s voice in the public sphere. Men are also seen as “more knowledgeable” regarding matters that affect the whole community. As men are more likely to have attended formal schooling, they tend to claim control over the committee, not least based on their literacy skills (Lachapelle et al. 2004; Behera and Engel 2005). Women thus tend to feel inadequate to become members of the executive committee, and feel that they cannot contribute to the decision-making process:

I am uneducated. The secretary and treasurer [both men] are educated and they take care of everything and inform me. I say "ok" to their decisions.
[Woman president of the executive committee, Dugur]

This perception of women being unqualified is widely voiced by respondents during interviews and group discussions. This is significant given that in Dugur 6 of the 12 members of the executive committee are women, while in Majuwa 3 of the 9 members are women. Although women are in effect members of the executive committee due to legal requirements and to ensure good relations with the District Forest Office, this has not yet been fully integrated socially or understood as an asset. Such inconsistencies between perceptions and reality are a sign of transition, of a renegotiation of which practices are deemed desirable. Indeed, practices and social relations are not mechanically reproduced but mediated by experiences and their interpretation. Both men and women might be ambivalent when faced with women in the executive committee, unsure of what to make of this new situation, what meaning it has and how it will be used by various groups. The situation is thus contested, being seen by some as an opportunity to experiment, while it is opposed by others. In the following quote, this ambivalence is implicit, in that the woman has not (yet) resigned, despite her husband's disapproval:

I was appointed for general member post. When I told my husband that now I am an executive member of our CFUG, he asked, "Why do you have to be a member? Now, who will do the household work?" Every time I attend meetings, he gets angry with me. I am going to resign. [Woman member of the executive committee, Majuwa]

Thus, although ensuring representation of women in the Executive Committee can provide them with a platform to voice their views (Tinker 2004; Upadhyay 2005; Vissandjee 2005), in Majuwa and Dugur it has not allowed women to effectively influence decision making (yet). This might make fulfilling quotas lead to little more than tokenism. However, such a summary assessment may overlook more subtle processes that are on-going and whose outcome is open. Indeed, the information and experiences women have as members of the executive committee are likely to open up new possibilities for the way they see and react to the world around them (Fussel 1996; Mohanty 2002 cited in Cornwall 2003:1329). This is not only the case for the women, but also for the men in the executive committee and the community at large, all of whom are experimenting with this new arrangement. This opportunity for learning and experimenting with leadership is recognized by women:

Women who are in executive committee also benefit. These women learn how to speak and act. Many of them have in fact increased their verbal skills of communication and gained confidence. They can now say 'two things' about community forestry and convince others about forest protection and management. [MT, Majuwa]

Including women as members of the executive committee is thus likely to affect not only management decisions (Agarwal 2009), but, over time, also induce shifts in values and beliefs. Indeed, despite the symbolic way in which only literate people are considered legitimate to take decisions in the Executive Committee (see also Nightingale 2005), illiterate women, through their daily interactions with the other members of the Executive Committee learn “how to speak and act”. This apprenticeship enlarges their repertoire of social interaction modes, thereby redefining their potential roles in the community.

Perception of the general assembly

The General Assembly is gathered once or twice a year by the executive committee to discuss and decide about forest management measures, to amend or revise the Forest Operational Plan and possibly to elect new members to the executive committee. It thus can be an important platform for discussion, negotiation and contestation regarding proposed measures and impending changes. Although the general assembly tends to be captured by a few members of the executive committee in terms of setting agendas, generally discussions are deliberative, communicative and responsive to members (Pokharel and Ojha 2005).

Of the interviewed women, 43% usually attended the general assemblies. This is significant since the women are not aware that it is their right to attend the general assembly since their name is included in the membership list. Instead, they have claimed and established their right by attending. This is a creative act (Dalton, 2004) by these women: they adapted their habitual practices as they perceived it as necessary. Over time men have tacitly acknowledged their right to be in this public space. Thus, through their acts, the women have renegotiated what is considered as acceptable behavior:

Things are much better now, more women go to the general assembly. Husbands do not argue much now if women go to meetings. The community has also started to value women in some ways. [DT, Majuwa]

Whereas attendance at the general assemblies is increasingly becoming the norm, it does not necessarily translate into active participation in the debates. Most of the women (65%) said that they prefer to “just sit and listen”. However, the passive behavior of some of the women should not imply that they feel that they have no right to speak up. The vast majority of interviewed women (88%) do not see it as inappropriate for women to speak up during meetings. Still, they admitted that it requires a lot of courage, communication skills and an encouraging environment to express opinions in a formal, public forum.

However, here too, a snap-shot approach to assessing the currently dominant behaviors should not hide the fact that there is an underlying process of experimentation. There is a significant minority of women (35%) who speak up during meetings and dare to ask questions. These women are engaged in creative action, in renegotiating social norms.

Through their behavior they not only improve their own skills, but may induce shifts in the behavior of others and the norm of what is expected of women:

It has not been long that women started to attend the General Assemblies. Earlier, there were very few women. Nowadays, the society anticipates that women come and attend the General Assemblies. This is a big improvement. Things have slowly changed but they have changed on a positive note. I am sure in coming days, women will gain more confidence and will not feel shy to talk what is going on in their minds. But this will take time. [PT, Dugur]

The women generally might still refrain from voicing their views, for a variety of reasons e.g. deference to those who 'know', to safeguard social cohesion, due to time constraints set by their household duties or because they do not expect to be listened to. Still, some women are experimenting with various ways to make their views heard during the general assembly. In this process they gain insights regarding both argumentation and successful behaviors, not least by observing the men and women who successfully object to a proposition by the executive committee and learn to be assertive:

Normally, people do not listen carefully when a woman speaks in the general assembly. Even sometimes, people pretend that they listen to women, but they do not include women's issues into final decisions. If a woman has to get herself heard, she has to act very, very assertively. [BT, Dugur]

Indeed, over a third (35%) of respondents stated that they exert "some" influence, especially in decisions regarding the duration and timing of forest closure, measures to protect the forest and rules about the distribution of forest products. Agarwal (2001a) has termed it "activity specific" participation. These decisions affect the women's abilities to satisfy the needs of their households and they feel self-confident about their right to ensure that their needs are met, e.g. by ensuring the protection of the forest against intruders:

Women will protest to the executive committee if forest protection is questioned. If there were some illegal entry to forest, and if the executive committee did not pay proper attention to such thefts, then they knew that women will raise issues against that. [LT, Majuwa]

The fact that there are certain areas where women are influencing decisions can be seen as indicating the start of a process that might come to include a wider range of issues over time. But this process is open, and there is no certainty that women's participation might not be limited to areas related to their domestic responsibilities (Agarwal 2001a). The women themselves see room for improvement, as only 43% were "completely satisfied" with their current level of influence on decisions. Thus more than half of respondents are unsatisfied either with their ability to influence decisions generally, or with the types of decisions they can influence. Implicit in their assessment is the expectation that they 'should' be able to have more influence, thus questioning the traditional norms that leave such decisions on community matters entirely to men.

Women expressing their views through direct consultation

If women hesitate to take the initiative and voice their views in a public setting, it might help if a member of the executive committee asks them directly or personally. Such a consultation might be undertaken either during the general assembly or before. In the survey, women were thus asked if they had been consulted and asked to express their views. The majority of respondents (56%) said that they had never been consulted. Of those who were consulted, about a third (28%) did not voice their ideas. However, nearly two-thirds (72%) said that if consulted, they do voice their ideas and concerns.

The acceptance that women (sometimes) should be consulted before decisions are taken is in itself an important step. However, there is still the understanding that women need to be consulted on certain topics only, such as times of forest closures or measures to protect the forest. This means that women's views are rarely asked for on issues such as time and date of a general assembly, use of forest funds or the choice of species to be planted (see also Paudel 1999)

But women do not necessarily wait to be asked. Indeed, if they do not approve of a decision, nearly 23% of respondents will personally ask questions to a member of the Executive Committee during the General Assembly. As the following quote shows, there are instances where women do voice their views and directly address the executive committee, requesting a change in a decision that had already been taken:

Last year, the executive committee decided to open the forest during Dashain [one of the most important festivals in Nepal]. I did not like the timings. This is a festival time, I have to clean my house, entertain my guests and cook different kind of food in addition to my daily routine of work. I am sure I do not have much time to go to forest and collect the forest products. I told that I did not like it and asked the executive committee that the timing should be changed. We need time to celebrate Dashain. Later, the executive committee decided to open the forest a week before Dashain. [ST, Majuwa]

In this example the woman's resistance was based on her domestic duties, and changing the date to allow women the time to prepare for the festival benefited both men and women. Nonetheless, it is an example of a woman speaking up in a public space and self-consciously arguing her position. Given that the decision was later changed to accommodate her concerns, it will give her a feeling of self-efficacy. Such seemingly small incidents open options that until recently were unthought-of: a woman voicing her views in public and changing a decision, no matter how small. As the process was tacitly sanctioned by the executive committee and community at large, it is conceivable that women might be emboldened to raise their voice on other matters too. Thus, both the fact that the woman was willing to protest in a public space, and the fact that the executive committee accepted her protest as legitimate, in effect giving her a say in the decision, are significant (see also Nightingale 2006). According to local cultural norms, this was not an acceptable behavior by the woman or the men. Women were expected to obey their husbands, father-in-law and other decision makers, who in

return were expected to listen to women's views or preferences. Yet the woman did protest the decision in direct and public opposition to the executive committee. Such an incident shows how gender norms are contested as the women redefine in what spaces and contexts they can voice their views. It is also an example how the women can use community forestry as a platform to contest gender roles: using the legitimate reason of an upcoming festival with its domestic workload, the women questioned the wisdom of the executive committee's decision.

Conclusion: Community forestry as a supportive frame for processes of social change

The results of the survey confirm previous reports that women's participation in the CFUG seem to be mostly tokenism, i.e. that they are often co-opted as members of the executive committee. However, the women's perceptions as voiced in the interviews and group discussions, point towards the need for a more nuanced analysis to understand the underlying dynamics. This type of analysis requires a complementary mix of methods. Especially the in-depth interviews and the group discussions allow shedding light on subtle processes that are missed by indicators such as the number of women in the executive committee or the share of women attending the general assembly. The interviews and discussions showed that women's perception tend to be process-oriented rather than a snap-shot assessment of a situation at one point in time. Thus, if the goal is to understand progress in women's involvement in community forestry, it would be helpful to ensure that evaluations include participatory methods. These will provide the information needed to adequately interpret quantitative data, since the same figure can be the result of very different processes.

The women involved in this study do not see themselves as passive casualties of male domination. Some of them take the opportunities offered by the CFUG structures and actively shape their social world by renegotiating their rights. Evidence of the processes of change can be found in incidents that might seem minor, but through such subtle shifts, some women experiment with alternative behaviors, contest traditional norms and increasingly assert their rights. As a result women's attendance at the general assembly has become an expected behavior, and voicing her views in a public forum is no longer seen as an indecent activity for a woman. Using a public forum to demand that a decision made by the executive committee be changed might still be rare. But it is an achievement in a society where, traditionally, people of authority are not questioned. Some women are challenging decisions, experimenting with voicing their views in public, thus gradually building their self-confidence and their feeling of self-efficacy, even if they encounter occasional setbacks. This process might be slower than development agents or policy makers would wish, but that does not make the progress less significant for the women struggling with the complexities of real life.

Externally-induced changes in structure such as quotas for women in the executive committee are important supportive measures to create an institutionalized space for women's participation. Women, as well as other marginalized groups (Nightingale 2005), can then use this space to experiment with new behaviors. Such experiments can add up, and in time induce shifts in what is perceived as acceptable or desirable by both men and women. It thus seems simplistic to expect a change in the behavior of women as soon as structural changes are implemented. The fact that all the women do not immediately assert their right to equal participation should not hide the fact that the information women receive and the experiences they make as members of the executive committee can lead to a revised understanding, opening up new possibilities for the way women see and act (Fussel 1996). These are indicative of how microsocial change processes are initiated and sustained by creative acts taking place in daily encounters (Dalton 2004), e.g. during meetings of the executive committee. These results mirror Nightingale's (2006), which show that gender is a process: subjectivities are produced and shift over time. Gender is not constant but is transformed during daily interactions of people and the CFUG provides a valued forum for such interactions.

Thus achieving a truly community-based natural resource management is generally a slow and continually evolving process (Flint et al. 2008). It may be a question of the glass being half-full, and we do not mean to be unduly optimistic. This renegotiation of meanings and possibilities are contested and progress is not expected to be smooth, setbacks are bound to happen. Furthermore, the outcomes of these social processes are not determined a-priori, and it is not inevitable for disadvantaged groups to climb the "ladder of participation" (Agarwal 2001a).

However, we see the CFUG as a crucial platform for this negotiation process, a process which needs a forum of public deliberation, where the traditional social order can be contested. The CFUG is such a public forum. The external pressure to be inclusive limits the possibilities to exclude disadvantaged groups. The CFUG is also focused on a natural resource that is essential for the livelihoods of all in the community. The stakes are thus high, increasing the likelihood of engagement and the need to find ways to accommodate differences, to resolve disputes and to find creative approaches to conflict resolution. This is not self-evident, especially in times when the national politics are unruly, markets unreliable, income opportunities unstable and livelihoods precarious.

The value of a community-based approach is its ability to raise the level and quality of dialogue and participation in natural resource management (Flint et al. 2008). At the same time it is important to recognize the difficulties associated with accommodating the different needs and priorities of various groups, and the influence of complex and informal social norms related to caste, wealth, age and gender. The men and the women, the elite and the low-caste need time to experiment with new behaviors, learning how to assert their needs while accommodating others', how to debate in public, and how to resolve conflicts (Nightingale 2005). They need time to recognize the

opportunities to improve the community's well-being and the benefits of including women's knowledge of forest ecology. The CFUG should thus be understood not only as an institution focusing on forest management, but also as a frame for a social process, providing both men and women the opportunity to explore new modes of interaction, identifying common interests. This wider conceptualization of a CFUG strengthens its ability to contribute towards the dual process of promoting the ecological health of the forest and democratic processes within the community. Both are processes that need time: they are unfolding and not to be hurried.

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May 15 – Aug. 30, 2003 **Project Assistant** for WINROCK International, in Kathmandu, Nepal

Oct. 1, 2002 – Apr. 30, 2003 **Researcher and field facilitator** for the Centre for National Anthropological Studies (CNAS) in Kathmandu, Nepal

Jan. 1 – Sep. 30, 2002 **Researcher** for Women Professionals Working in the Landuse Sector (WPLUS) in Lalitpur, Nepal

OTHER EXPERIENCE

Jun. 1– Oct. 30, 2004 **Tutor** at the University of Natural Resources and Applied Life Sciences, Vienna, Austria.

Oct. 1– 30, 2004 **Rapporteur**, at the Vienna International Development Cooperation.

PUBLICATIONS

Published papers (peer reviewed)

Giri, K., & J. Gurung. 2008. Still a Man's World: Reflections of Women Foresters in Nepal. Conference proceedings of the IUFRO Gender and Forestry Conference, held November 16-19, 2008 in Dehradun, India.

Koirala R., Giri, K. & B. Pokhrel. 2008. Development and Status of Community Forestry Governance in Nepal. Conference proceeding of the National Convention of Foresters: 'Forestry in a Climate of Change', held November 5-9, 2008 in Reno-Tahoe, Nevada, USA.

Giri, K., Pokhrel, B. & I. Darnhofer. 2008. In the Absence of their Men: Women and Forest Management in the Mid-hills of Nepal. In: K. Arvasossis, C.A. Brebbia and N. Gomez (eds.). *Environmental Economics and Investment Assessment II*. WIT press: Southampton, UK, pp. 255–262.

Giri, K. 2006. Resource Complexities and Governance Mechanisms: Evaluating Community Forestry Program of Nepal. Proceedings of the Conference on Human Dimensions of Global Environmental Change, held November 17-18, 2006 in Berlin, Germany.

Giri, K. 2005. Changing dimensions of Community Forestry in Nepal: From subsistence towards sustainability. *The Nepal Journal of Forestry*. Vol. XIII, No. 3, pp. 14–19.

Research Reports

Giri, K. 2008. Reflecting on Experiences: Women in the Forestry Sector in Nepal. Problems of and Prospects for Women in Forestry and Natural Resource Management. Institute of Forestry, Virginia Tech University and Memorial Center for Research and Excellence, Institute of Forestry, Pokhara, Nepal. 23 pages.

Giri, K. 2008. Profiles of Women Graduates of the Institute of Forestry, Nepal. Institute of Forestry, Virginia Tech University and Memorial Center for Research and Excellence, Institute of Forestry, Pokhara, Nepal. 37 pages.

Giri, K. 2008. Directory of Women Professionals in Forestry and Natural Resources Management in Nepal. Memorial Center for Research and Excellence, Institute of Forestry, Pokhara, Nepal. 37 pages.

Giri, K. 2005. Civic societies in Community Forest Governance: Case Studies from Rupandehi district. MSc Thesis. University of Natural Resources and Applied Life Sciences, Vienna. 96 pages.

'Insights and Reflection' articles

Giri, K. 2004. Women, work and the economy: Exploring the informal sector. *WPLUS Quarterly Newsletter*. Volume 5, Issue 2, pp. 15–18.

Giri, K. 2003. Retrospection of Doomed Ecology in Nepalese Mountains. *WPLUS bi-monthly Newsletter*, Vol. 3, Issue 2, pp.1–3.

PRESENTATIONS AT CONFERENCES

Invited panel presentations

- Giri, K. 2009. The role of students from developing countries in the internationalization and their importance in the development policy context. Panel presentation at the Conference 'Internationalisation and development policy dimensions at universities and universities of applied sciences', held April 16-17, 2009 in Vienna, Austria.
- Giri, K. 2008. Living up to their experiences: Women in forestry sector. Panel presentation at the Conference 'Linking Excellence and Social Inclusion in Forestry Institutions' held on March 14, 2008 at the Institute of Forestry Campus, Hariyokharka, in Pokhara, Nepal.

Selected Presentations at scientific conferences

- Giri, K. 2009. Women as forest managers: Coping, contestations and change. Conference on women's empowerment and development: Meanings, manifestations, and contestations, held June 19-20, 2009 in Brighton, UK by the Institute of Development Studies.
- Giri, K. 2009. Outmigrating men: A window of opportunity for women's participation in community forestry? 2nd Gender and Forestry Conference: 'Making a difference in theory and practice' held June 15-18, 2009 in Umeå, Sweden.
- Giri, K. 2009. Understanding Participation as it Happens: Insights from Community Forestry Program in Nepal. Forum 'Development Matters' of the Centre for Development Research of the University of Vienna, held May 14, 2009 in Vienna, Austria.
- Christie, M. E, K. Giri & J. D. Gurung. Women in the Woods: Experiences of Women in the Forestry Sector in Nepal. Annual Meeting of the Association of American Geographers, held March 22-27, 2009 in Las Vegas, USA.
- Giri, K., & J. Gurung, 2008. Still a Man's World: Reflections of Women Foresters in Nepal. IUFRO Gender and Forestry conference, held November 16-19, 2008 in Dehradun, India.
- Koirala R., Giri, K. & B. Pokhrel. 2008. Development and Status of Community Forestry Governance in Nepal. National Convention of Foresters, 'Forestry in a Climate of Change' held November 5-9, 2008 in Reno-Tahoe, USA.
- Giri, K. 2008. Participation: Differing Dimensions and Associated Challenges to Development. Research for Development: Young Scientist Forum, held October 29, 2008 in Vienna, Austria.
- Giri, K. 2008. In the Absence of their Men: Women and Forest Management in the Mid-hills of Nepal. 2nd International Conference on Environmental Economics and Investment Assessment, held May 28-30, 2008 in Cadiz, Spain.
- Khandelwal, A., Gwanko, E., Giri, K. & M. Orsini. 2006. Poland Goes for Biofuels. 9th Conference of the International Society of Ecological Economics, 'Ecological Sustainability and Human Well-Being', held December 15-19, 2006 in Delhi, India.
- Giri, K. 2006. Resource Complexities and Governance Mechanisms: Evaluating Community Forestry Program of Nepal. Conference on Human Dimensions of Global Environmental Change, held November 17-18, 2006 in Berlin, Germany.
- Giri, K. 2005. Putting People First: Forest Management in the Mountains of Nepal. Mountain meeting of the International Forester Student Association, held May 1-8, 2005 in Chamonix and Grenoble, France.

Poster presentation

Giri, K. 2009. Why include women in community forestry? To include differences or to make a difference. Tropentag 2009: Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources, to be held on October 6 - 8, 2009, Hamburg, Germany.

Giri, K. 2007. Evaluating Governance in a Community Forest User Group: Good Governance as a key concept for the sustainable management of forest resources in Nepal. Student Conference on Conservation Science, held March 27-29, 2007 in Cambridge, United Kingdom.

HONORS

Awards

- 'Mahendra Vidya Bhusan' of the year 2002 by His Majesty the King.
- 'Yaishwarya Vidya Padak' of the year 2002 by Her Majesty the Queen.
- 'Forester's Memorial Award' of the year 2002 by Nepal Foresters' Association, Nepal.
- 'Vatuk Prasad Memorial Award' of the year 2002 by Nepal Foresters' Association, Nepal.

Scholarships

- Natura travel grant for the poster presentation at the Tropentag 2009:Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources, to be held on October 6 - 8, 2009, Hamburg, Germany.
- Swedish Agricultural University, Umea bursary to attend the course *Gender and Natural Resource Management* and the 2nd Gender and Forestry Conference: 'Making a difference in theory and practice' held June 15-18, 2009 in Umeå, Sweden.
- North-South Scholarship by the Austrian Exchange Service for Mobility and Cooperation (OEAD GmbH), in support of doctoral studies at the University of Natural Resources and Applied Life Sciences, Austria. October, 2006 - November, 2009.
- Marie Curie Fellowship for attending the 'THEMES Summer School' at the Autonomous University of Barcelona, Spain. June 11-17, 2006.
- One World Scholarship by the Austrian Exchange Service for Mobility and Cooperation (OEAD GmbH) for completing the MSc studies in Mountain Forestry at University of Natural Resources and Applied Life Sciences in Austria. October, 2003-September, 2005.
- WINROCK International scholarship for attending the BSc studies in Forestry at the Institute of Forestry, Pokhara, Nepal. January, 1998- December, 2001.
- 'Merit scholarship' from the Church Missionary Lucknow, for attending Intermediate in Science at Isabella Thoburn Christian College Society, in Lucknow, India. August, 1995- July, 1997.

SELECTED TRAINING SCHOOLS

'Gender and Natural Resource Management', PhD-course organized by the Swedish University of Agriculture Sciences, held June 8-18, 2009 in Umeå (Sweden). Coordinator: Gun Lidestav.

'Critical Social Theory', Summer course organized by the Wageningen University, held August 26-29, 2007 in Wageningen (The Netherlands). Coordinator: Petra Derksen.

'Youth Encounter for Sustainability (YES)' organized by the Center for Sustainability of the Swiss Federal Institute of Technology (ETH Zürich), held August 12-28, 2006 in Braunwald (Switzerland). Coordinator: Michelle Grant.

'Analysing Complexity', Summer school within the Marie Curie "Emerging Theories and Methods in Sustainability Research (THEMES)" summer school series. Held June 7-17, 2006 at the Autonomous University of Barcelona in Barcelona (Spain). Coordinator: Prof. Joan Martinez-Alier.

'Program Evaluation Institute', organized by the Department of Community, Agriculture, Recreation and Resource Studies, of Michigan State University. Held June 6-17, 2005, in Michigan (USA). Coordinator: Prof. Murari Suvedi.

'Informative Presentation' organized by the Afro-Asiatisches Institute and One World, held 23-25 April, 2004 in Graz (Austria).

PROFESSIONAL ASSOCIATIONS

- Member of the European Association of Environmental and Resource Economists (EAERE)
- General member Forest Action, Nepal
- Member of the Nepal Forester Association, Nepal
- Member of Women Organizing together for Change in Agriculture & NRM (WOCAN)
- Member of Association of Women Professionals in Landuse Sector (WPLUS), Nepal
- Reviewer of the Journal 'Natural Resources Forum'