Development and Status of Community Forestry Governance in Nepal

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Abstract

Nepal has increasingly gained world-wide recognition in participatory forest management, primarily through "Community Forestry" program. 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 program 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 socioeconomically, 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, Nepal

1. 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% (HMGN/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 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 45,00MW 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 table 1 below.

Table 1 Major forest types of Nepal (Stainton 1972; Jackson 1994)

SN	Type of Forest	Altitudinal Range	Common Species
1	**Tropical forest**	below 1,000m	*Shorea robusta; Acacia catechu,Dalbergia sissoo, Michelia champaca, Bombax ceiba, Terminalia/Anogeisss*
2	**Subtropical broad-leaved forest**	1,000-2,000m	*Schima wallichii/Castanopsis indica, Cedrela/Albizia, Alnus nepalensis*
3	**Subtropical pine forest**	1,000-2,200m	*Pinus roxburghii* (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.	*Alnus nitida, Castanopsis tribuloides/C. hystrix, Lithocarpus pachyphylla, Quercus leucotrichophora/Q. lanuginosa* forests and *Q.Floribunda, Q. lamellose, Lithocarpus pachyphylla*
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	*Quercus semecarpifolia*

7	**Upper temperate mixed broad-leaved forest**	2,500-3,500m	*Acer spp, Rhododendron spp, Aesculus spp, Juglans spp*
8	**Temperate coniferous forest**	2,000-3,000m	*Pinus wallichiana, Cedrus deodara, Cupressus torulosa, Tsuga dumosa* and *Abies pindrow, Picea smithiana, Juniperus indica*
9	**Sub-alpine forest**	3,000-4,100m	*Abies spectabilis, Betula utilis*, and *Rhododendron Species*
10	**Alpine scrub**	above 4,100m	*Juniperus recurva, J. indica, J. communis, Rhododendron anthopogon, R. lepidotum, Ephedra gerardiana, Hippophae tibetana, Caragana versicolor, Lonicera pinosa, Rosa sericea* and *Sophora moocroftiana*

2. 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) has classified Nepal's forest management history into three important periods, namely privatization (1768-1951); nationalization (1951-1978) and populism (1978 onward)

a. 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 (Ives and Messerli 1989; Blaikie and Brookfield 1987; Blaikie et al 1980; Mahat et al 1986). After 1846, forests were handed over to local elites in various forms such as *birta, talukdar, kipat, 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) if timber was necessitated to them, and talukdar was required to ask people if timber was needed to him. Local people had free access to the forest for limited commercial value of fuelwoods, 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; Messerschimdt 1993). As Swallow & 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).

b. Nationalization (1951-1978)

During the1950s, 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 endeavors from government were unable to control (Wallace 1981). Eventually, forest nationalization converted the limited access people controlled forest to open access common property resources (Ostrum 1990; Hobley 1985; 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 & 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 hills resulted high soil erosion, landslide in the 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 Himalays 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 ha 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 solicitous (Guthman 1997) The Munich conference on "The Development of Mountain Environment" concentrated on the deterioration of Nepalese Himalays. 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 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 Panchyat 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.

c. 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 Panchyat 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 program, 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 (CF) 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 CF as one of the most successful program of Nepal (Bhattacharya and Basnyat 2003).

After having strong legal backing, Community Forestry got the momentum and is said to brought numerous significant effects both, in forest and socioeconomic status of people. As a result, target of CF program transformed to poverty reduction and Millennium Development Goals attainment. The third national workshop on Community Forestry held in 1998 projected the aim of CF program 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 (FSCC) has identified and stressed to focus on the second-generation issues in

Community Forestry such as livelihood promotion, good governance and sustainable forest management to mainstream and add relevancy to the program at the present context.

3. 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 program 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 fulfillment 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 (ha) 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 ha (average being 83.43 ha/CFUG and 0.73 ha/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 CF 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 CF directly goes to FUGs and contributes in multiple aspects of the local development. The following diagram illustrates the pattern of fund expenditure of CF 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 program is very low, there has been good start to address poverty reduction target of the country through forest management.

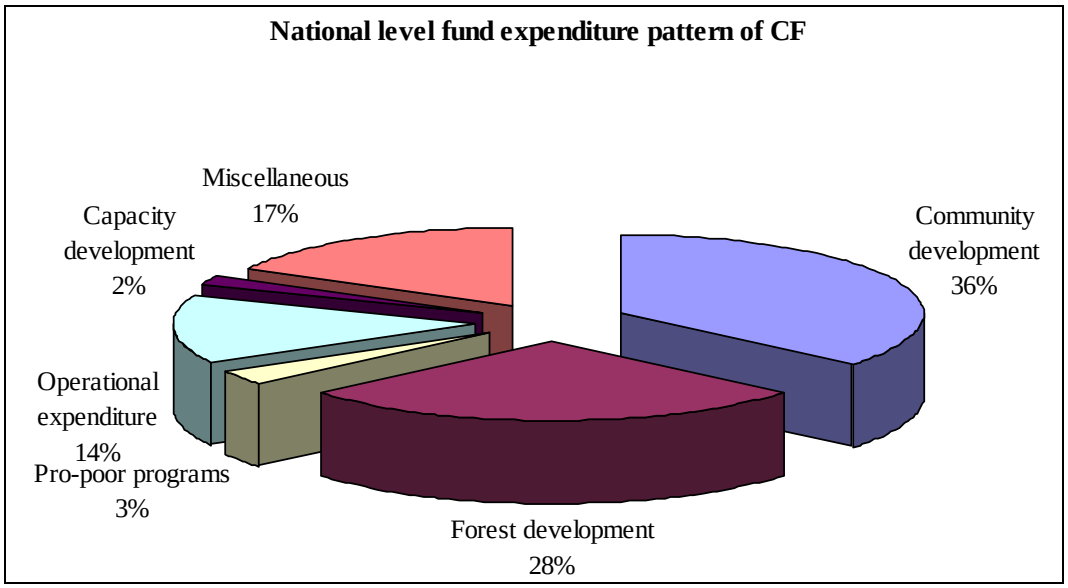

Figure 1 Fund expenditure pattern of Community Forestry in Nepal (Kanel and Niraula 2004)

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 programs for women and the poor and scholarship for poor students (Thies and von Pfeil, cited in 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 (Thies and von Pfeil, cited in Mayers 2007).

Several impact studies of CF across the country have concluded that CF has brought significant favorable 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 & indirect positive impacts upon the livelihoods. Furthermore, CF has brought supportive influences on agriculture production, income and employment generation, biodiversity conservation, social unity and literacy in society. So, CF 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 CF program upon the livelihoods of poor and forest dependent people (Neupane 2003; Nightingale 2003; Timsina and Paudel 2003). For instance, Gentle (2000) stated that CF program 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 CF is very low while the local elites (high social status, wealthy and educated) are influential in local decision-making processes of CFUGs (Gilmour and Fisher, 1991). Consequently, an unequal distribution of CF benefits in favor of local elite is common in many CFUGs (Brown et al 2002; Maharjan 1998). This variability in CF outcomes indicates an intricate relationship amidst CF governance, forest resource status, and livelihood of people which is dealt below in detail.

a. 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 endeavors. 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; Pokharel 2004; Pokharel et al 2005; Dev et al 2003) have revealed that CFUGs 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 CF, of the total district population has increased from 18% in 1995 to 76% in 2004; women in FUG 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 FUG committees has increased proportionally with district population from 3% in 1995 to 11% in 2004. Likewise, representation of ethnic minorities in FUG 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 CFUGs 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 CFUG 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 etc.
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 & Information**	Public hearing, public auditing, information flow both vertically & horizontally.
14. **Ministry of Tourism**	Ecotourism by constructing picnic spot, temples, recreational **s**pots.
15. **Ministry of Health**	Investment in health post, medicine, awareness in sanitation
16. **Ministry of Forest**	Forest management, silvicultural operation, 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 CF 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). CFUG 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 heterogenous. 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 program. Therefore, eventhough 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 CF policies can potentially offer if well-governed.

b. Sustainable Forest Management

Forest management activities of 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 (Schereier *et al*. 1994; Virgo and Subba 1994; Collett 1996).

Community Forestry in Nepal is especially successful in forest conservation (Thoms 2008; Gautam et al 2004, 2002; Springate-Baginski et al 2001; Yadav et al 2003). The comparative studies of the forest before and after CF 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 CF (Gilmour and Fisher 1991). Some CFUGs 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 CF program 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 CFUGs 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 (Edmonds 2002; Larsen et al 2000; Malla et al 2003; Pandit and Thapa 2004; Yadav et al 2003; Sowerine 1994; Shrestha 2000). Hill (1999) estimated NRs 560 per household per day as the loss of not conducting active management in Community Forestry. Moreover, CFUGs 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. Demand of the forest product is higher than the prescribed supply of those products. But, CFUGs are taking less forest products than the forest can supply. It reinforce that CFUGs 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.

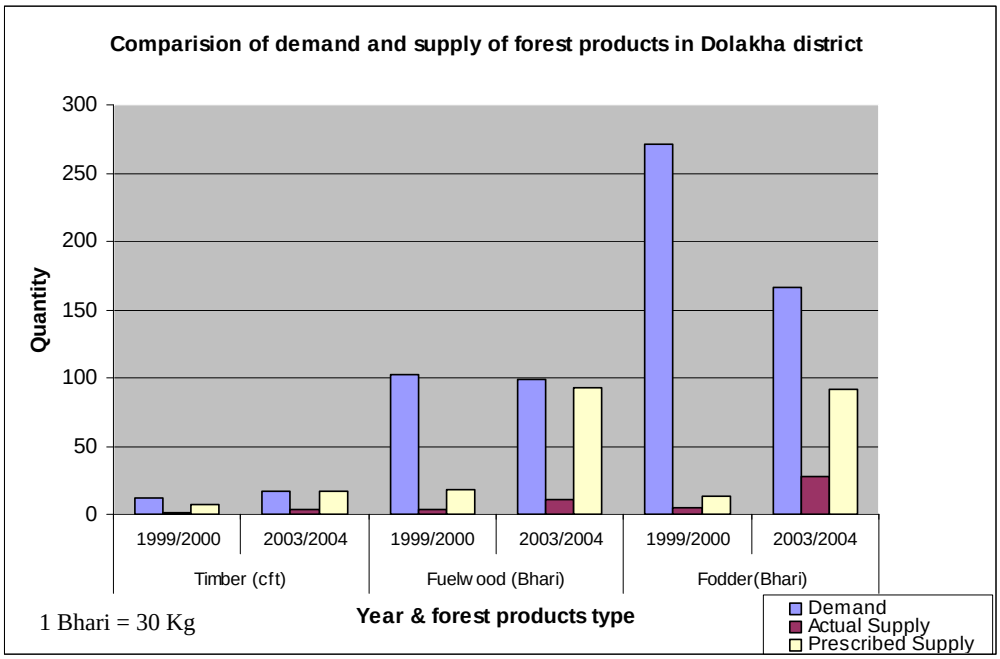

Figure 2 Comparison of demand and supply of forest products in Dolakha district (Koirala, 2006)

c. Sustainable Livelihood

According to the sustainable livelihood framework (Figure: 3), a system or an individual can generate sustainable livelihood outcomes and strategies mobilizing the livelihood capitals (DFID, 2002). Pokharel (2004) considered CF as the most successful program 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, CFUG 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 CFUGs collaborate with other CFUGs 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 **F**ree forest product for poor, **F**unds for them, their **R**epresentation in leadership positions, **E**mployment, scholarship for **E**ducation, access to community forest **L**and, **I**nclusion in decision making processes, equitable access to **F**orest products, and income generating **E**nterprises. Based on their resources, CFUGs develop livelihood strategies that motivate people's participation and contribute in poverty reduction.

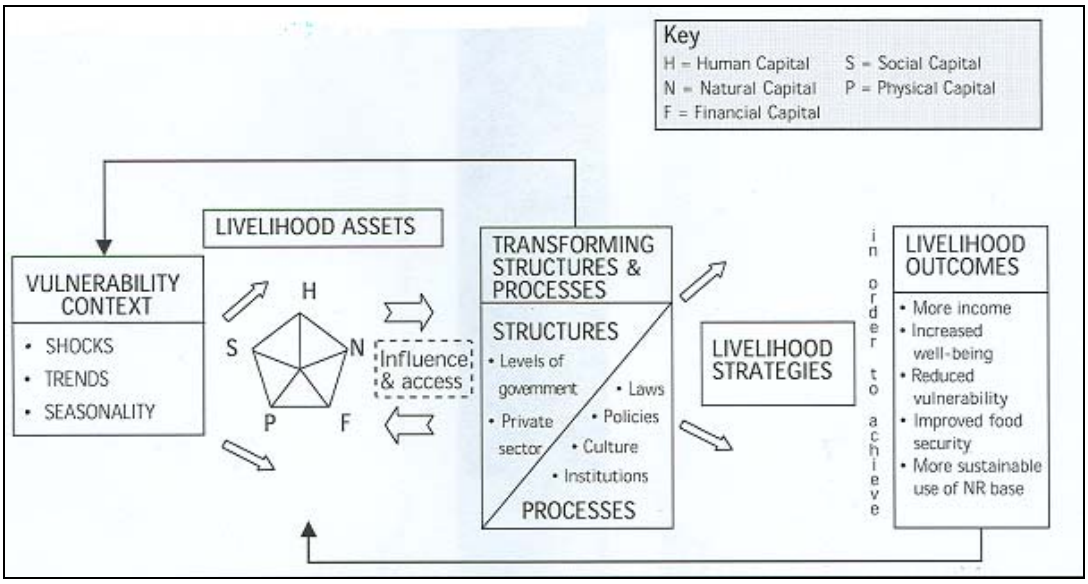

Figure 3 Sustainable livelihood framework (DFID, 2002)

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 leveling, 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. Doalakha, 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 FUGs has allocated forest land, 7% of FUGs has provided grant support and 24% has provided loan assistance to disadvantaged households to conduct various income generating activities. 13% FUGs 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 this case, 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 livestocks than large herds (Foster et al 2000 and Otsuka and Place 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).

4. Conclusion

Socioeconomically poor but biophysically 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 fulfillment as well as forest conservation. But, the forest nationalization endeavor 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 FAO 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 favorable to community participation and in early 1990s Community Forestry was fully legalized. After the legal recognition, CF 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 CF program 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 program 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 program, 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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