



Does excluding women undermine the resilience of communal grazing land? A case study in Amhara region, Ethiopia

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Abstract – Gender is a key dimension in generating social roles, and thus has a direct impact on men's and women's interests in the use of natural resources such as communal grazing land (CGL). To ensure the resilience of the CGL, it seems beneficial to integrate the different interests and knowledges. The aim of this study was to understand the barriers to integration, and their effect on resilience of the CGL. Empirical evidence was collected through focus group discussions and interviews in a community in the highlands of Ethiopia. Results show that women are excluded from informal institutions that govern the CGL. This exclusion leads to their knowledge about uses of specific grasses and their preferences not being taken into consideration. This has affected the ecosystem in three ways. Firstly, women have been banned from harvesting a specific grass species used to craft traditionally made plates. As a result this grass has become more abundant lowering the feed quality of the CGL. Secondly, as oxen are systematically privileged, dairy cows receive less protein-rich feed than would seem desirable. Thirdly, poorer (often women-headed) households do not benefit from the CGL as they do not own cattle. These households thus question the legitimacy of the institutions governing the CGL. The study thus shows how the lack of gender-integration can negatively affect the resilience of a social-ecological system.

INTRODUCTION

Gender is a key dimension in generating social roles and responsibilities, and thus has a direct impact on the use of natural resources. At the same time, gender tends to affect status and power in a society, thus influencing women's ability to make their voice (and thus their priorities) heard. Where livelihoods are mainly based on the use of local natural resources, gendered roles may affect the resilience of the social-ecological system in two major ways. Firstly, given their different involvement with the natural resources, men and women tend to have different knowledge about these natural resources. If women are not included in the discussion platforms and committees guiding the management of the natural resources, their knowledge will not be taken into account. This can reduce the diversity of

knowledge that informs adaptive measures and thus impoverish innovation. Secondly, women's priorities in the use of the natural resources may not be considered, leading management rules to be biased towards men's preferences. Women may not perceive these rules as legitimate, thus enhancing the likelihood that they will be subverted. If the rules are subverted, it may undermine the sustainable use of the natural resource.

To better understand the processes through which gender-blind management rules may undermine the resilience of a social-ecological system, data was collected in a case study in the Ethiopian Highlands. The focus was on the right to access and use the communal grazing land (CGL).

STUDY SITE AND METHODS

The study is conducted in Bure district, located in the Amhara region, situated at approx. 2300 masl. Agriculture is characterized by a mixed crop-livestock system, aimed at subsistence farming. For the case study, we selected a community whose grazing land is widely acknowledged to be well managed. Data was collected through focus group discussions (with men, women and the members of the committee managing the CGL), key informant interviews, participant observations and reflection workshops. Data collection was guided by questions such as: who is doing what, who has the decision-making power on what, and who holds what kind of ecological knowledge regarding the CGL.

RESULTS

Overlooking gender results in sub-optimal use of the CGL resources. The results confirm that given the different roles and responsibilities men and women tend to have, they have different experiential knowledge of the natural resources they depend upon. Women recognized both *Medicago polymorpha* (locally known as 'Mesobei') and *Trifolium spp.* (known as 'Wajima') as an important feed species since they increase milk production. It would thus seem desirable to prioritize lactating cows during the non-ploughing seasons. Yet, dairy cows are not given preferential access to the grazing land, even when oxen are not used to plough and thus do not need protein-rich feed. However, as women are excluded from the traditional institutions, they have no opportunity to argue for a change in the rules that decide which type of cattle can access the CGL at what time of year. As a result the access rules reflect men's preference for oxen over women's preference for dairy cows. Indeed, the milk is con-

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trolled by the women who use it in the household and may sell processed dairy products. A woman key informant pointed out "...it is not fair to neglect cows as they are also important to have milk for our children, to get income from butter sell for us (women) and give the future oxen for the whole family."

Ignoring gender undermines the rule-in-use. The result indicates that while men are happy with the current rules that allow the use of the CGL only for feed, women are interested in having additional uses. They are particularly interested in getting the right to access the CGL to collect specific grass species (e.g. *Elusine floccifolia*, locally known as 'Arma'). Women need this grass to craft 'sifet', a serving plate made of dried grass. However, while *Elusine floccifolia* is recognized by the management body as an abundant species, women are not allowed to harvest it. This is all the more surprising as once it is mature this grass is not palatable, thus lowering the feed value of the CGL. Despite the strong rules making the harvest illegal, women steal the grass behind the back of the guards, so as to have the material needed to craft 'sifet'. As one key informant woman noted: "... my daughter used to steal *Hyparrhenia dregeana* from the controlled CGL at the back of the guards. She has been caught once but got out of it, before it was reported to the management body to pay a penalty fine.(...) The guard realized that the amount she took was too small". This indicates that rules which are not perceived as legitimate can be subverted if women have no other means to fulfil their needs.

Biased rules undermine the legitimacy of the informal institution. The rules are not only questioned by women, they are also questioned by those households who do not own cattle (i.e. poor households, many of which are headed by women). Given that the access rules are biased towards cattle, those who only own sheep do not directly benefit from the CGL. The disenfranchised households question the legitimacy of the institution. They find support, e.g. from the District Office of Agriculture, which is interested to stop the rotational grazing system and implement a cut-and-carry system to feed animals. Such a system is appealing to poorer households as it may enable them to cut grass to feed their sheep or to sell on the market. Thus, unless the informal institutions governing the CGL seek ways to address the needs of marginalized households, the pressure to remove this traditional system might increase. However, traditional management systems have been shown to be able to manage communal resources sustainably. Dismantling the traditional system may thus undermine the sustainable use of the grazing land.

DISCUSSION AND CONCLUSION

We underlined gender as an important issue to be considered when assessing the resilience of a social-ecological system. Indeed, gendered roles lead to gendered knowledge through familiarity with specific species and specific uses of those species. Changes that negatively impact the resource, as well as monitoring of indicator species are thus likely to

have a gender component. Unless such knowledge is included in the collective knowledge base, important information might be overlooked. This may not only imperil early signs of change, but may also reduce the capacity for innovation and renewal (Folke et al. 2005). Indeed, gender related barriers tend to impede the open participation of women in platforms that ensure effective pooling of knowledge and allow for integrative social learning.

Limiting women's participation also implies that women's needs are not taken into account when rules are discussed and decided upon. This may lead to women having little choice but to break rules so that they may meet their social roles. However subverting rules designed for the sustainable use of natural resources may negatively affect both the ecological sustainability and the social sustainability. Indeed, if rules are perceived as unfair or biased, the institution will be questioned and its legitimacy undermined. This points out that social equality and social justice issues are key aspect that can affect the resilience of social-ecological systems (Wuelser et al. 2012).

Taking into account the gender dimension, may allow increasing the diversity of knowledge. This diversity is a key element to strengthen the capacity of the system to cope and adapt with changes (Holling 2004, Chapin et al. 2009). Implementing integrative processes requires an awareness of power issues in the social system, as power is directly related to the questions of whose voices are heard and whose interests are acted upon. Women tend to have limited power in the decision making process of crafting the rules-in-use. However if women were invited to discussions on how to adapt rules of access and use of the CGL, it is likely that appropriate changes in the management rules could be identified that satisfy women's needs for specific grasses, and the cow's needs for protein-rich feed, all the while not threatening men's priority, i.e. strong oxen for ploughing fields.

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