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Politics of getting the numbers right: Community forest inventory of Nepal

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ABSTRACT

Inventory based management planning is a prerequisite for handing over forest management rights to community forest user groups in Nepal. However, the quality and rationale of such planning remains largely unexplored. Using a multiple case study approach, we aimed to assess the quality of community forest inventories in the mid-hill region of Nepal. We therefore conducted inventory in nine community forests, reviewed forest management plans and guidelines, and interviewed forest officials and representatives of community forest user groups to understand the procedures applied. Further we compared our inventory results with results presented in the plans and explored reasons for deviations. We found that the Inventory Guideline was frequently disregarded, both in design and implementation. Forest inventories were either poorly conducted or results simply fabricated. Significant differences were observed between the results of our inventories and those presented in the management plans. Furthermore, it turned out that growing stock volume was frequently manipulated to align with government circulars, specifying an upper limit of growing stock volume of 178 m^3 ha^{-1}. Seemingly, community forest inventories contribute to recentralizing community forestry through strengthening bureaucratic authority. Thus the inventory requirement serves mainly as a tool to satisfy bureaucratic requirements, rather than being a tool for guiding forest management decisions.

1. Introduction

1.1. Background

Technocratic values and practices stand out persistently and dominate policies and day to day forest management practices in the developing world (Ojha, 2006; Peluso, 1992). In Nepal, so-called 'scientific' forest management plans have become an important precondition for transferring user rights to local Community Forest User Groups (CFUGs) as well as a basis for forest management. Scientific forestry refers to a specific way of thinking about forests and regulation of forest use, which involves surveying the forest, systematically counting and measuring trees, estimating annual volume increment and ultimately specifying annual allowable cut. Scientific forestry, which originated in 18th century Germany and is based on the sustained yield principle (Lowood, 1990; Scott, 1998), still dominates participatory forestry. In this context scientific management is considered as a means to ensure ecological sustainability and to achieve sustained forest product yields (Toft et al., 2015). In addition, the emphasis on scientific approaches in participatory forestry appears to be related to a suspected lack of skills and knowledge required for sustainable forest management within local communities (Ribot et al., 2010).

In recent years, several studies have shown how scientific management plans in participatory forestry take on significance beyond simple management documents (Ahlborg and Nightingale, 2012; Giri and Ojha, 2011; Green and Lund, 2015; Mathews, 2011; Rutt et al., 2015; Scheba and Mustalahti, 2015). In fact, they are sometimes accused of becoming a tool that mainly serves to strengthen the control of forest administrations over forest resources and extraction of forest products (Faye, 2015; Hull et al., 2010; Maryudi, 2012; Ojha, 2013; Paudel and Ojha, 2007; Rutt et al., 2015; Toft et al., 2015). However, in a context where the state is unable to provide adequate human and financial resources, the technical quality of such planning tends to be poor, challenging its justification (Rutt et al., 2015). In agreement with this, Lund (2015) suspects that in the absence of adequate resources for planning and implementation, inventory-based planning in participatory forests has little to do with actual forest management.

In several ways the observation that forest bureaucracies use scientific management plans as a tool to strengthen their control can be seen as an attempt to recentralize the power over forest resources previously devolved to communities through participatory forest management schemes. Such attempts to recentralize power have been discussed in terms of professionalization (Lund, 2015; Nightingale, 2005; Scheba

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and Mustalahti, 2015); devolution of authority to expert knowledge (Faye, 2015; Green and Lund, 2015), increasing monopoly in policy decisions (Sunam et al., 2013) and the increased role of techno-bureaucratic values creating technocratic hegemony (Giri and Ojha, 2011; Nightingale and Ojha, 2013; Ojha, 2006, 2009, 2013). At a more general level, technical expertise can commonly be observed to support politics of expertise over democratic politics (Fisher, 1990) and in the context of community forestry in Nepal Ojha (2006) argues that bureaucrats are in fact becoming powerful through requiring the use of technically demanding science-based methods while the communities lose power over their forest.

Basnyat et al. (2017) highlights that management plan revisions in community forests pave the way for legal-sounding bureaucratic recentralization in Nepal, where the plans are prepared without complying with legislative requirements but are used instrumentally to achieve political or pecuniary goals. However, Basnyat et al. (2017) did not look at the role of the inventory, which is the most costly effort required in forest management planning. Here, we argue that powerful actors often introduce rules and mechanisms to control forest resources (see Krott et al., 2014), and the inventory requirement in community forest is one of the most important mechanisms. Very little knowledge exists on use of the inventory requirement as a means to recentralize forest management and, therefore, in this study we aim to contribute to the recentralization discourse by analyzing the case of forest inventory and demonstrating how the forest bureaucracy is using it as a means to recentralize community forestry in Nepal. We question the inventory processes, and the validity of inventory design and application in community forestry, and we therefore specifically:

i. examine the overall process of preparation of management plans as compared with the Community Forestry Resource Inventory Guideline, 2004 (henceforth, the 'Inventory Guideline') (DoF, 2004).
ii. compare our own forest inventory results with inventory results presented in recent Community Forest Operational Plans (henceforth, CFOPs);
iii. explore possible reasons behind the results obtained in i) and ii).

1.2. Theoretical background: recentralizing decentralized forest management

Decentralization involves transfer of power over natural resources to government appointees (deconcentration/administrative decentralization), or to local actors or institutions who are accountable to the population within their jurisdictions (democratic decentralization) (Agrawal and Ribot, 1999; Mawhood, 1993; Ribot et al., 2006; Sunam et al., 2013). Community forestry in Nepal is regarded as a putative form of democratic decentralization, where the government devolves power to local communities through community forest user groups (CFUG).

After the failure of centralized forest management in the 1950s, decentralized forest management came into effect with promulgation of the Panchyat Forest Rules in 1978 and subsequently through the Community Forestry Program introduced around the world in the 1980s (Ribot et al., 2006). Moreover, strong recognition of local user's role in managing the forest was observed after enactment of Forest Act 1993 and Forest Regulation 1995 which legitimize the transfer of power from the government to local CFUGs. With this Act CFUGs are regarded as perpetually self-governed autonomous institutions holding authority to undertake management decisions regarding forest resources (Acharya, 2002; Adhikari et al., 2004), enabling them to reduce ecological degradation (Gautam et al., 2004; Yadav et al., 2003), while also providing forest products for subsistence needs (Acharya, 2002; Pokharel et al., 2007). Despite de jure autonomy, it has emerged that the Government of Nepal is introducing bureaucratic hurdles to curtail the discretionary powers and autonomy of local communities (Sunam et al., 2013). In many instances the Forest Administration has shown that it is reluctant to maintain and increase decentralization, but has attempted to reassert the control of participatory forestry (see Ribot et al., 2006), and is therefore criticized for local communities losing control over forest resources (Shrestha and Ojha, 2016). Thus, decision-making power is returned to higher levels of bureaucracy by rendering processes increasingly technical, for instance by increasing monitoring requirements.

A major recentralization step was taken by the Ministry of Forests and Soil Conservation (MFSC) through the first amendment of the Forest Act in 1999 and subsequently by issuing a circular to all District Forest Offices/Officers (DFO) (in this paper, 'DFO' refers to the District Forest Office as an institution and the District Forest Officer and other staff) and CFUGs in 2000 requiring them to undertake detailed inventories of community forest as a basis for prescribing harvest levels (Dhital et al., 2003; Ojha, 2006). A guideline for the required inventory of community forest was issued in September 2000, 'Guideline for Inventory of Community Forestry' (DoF, 2000). It provided practical guidance for technical staff helping to assess growing stock and volume increment, and prescribing annual allowable cut. The guideline was published in English and is often blamed for having been prepared without consultation with stakeholders (Ojha, 2002). It was later revised and published in Nepali following consultation with a limited number of stakeholders in 2004 (DoF, 2004; Ojha, 2006). Introduction of inventory obligations widened the power gap between forest bureaucrats and community forest users as the inventory service is offered only through the government's District Forest Offices (Paudel and Ojha, 2007).

Forest bureaucrats not only provide expert knowledge but also hold authority over preparation and implementation of CFOPs and monitoring of forest management (Paudel and Ojha, 2007), and the Inventory Guideline acts as a means to establish techno-bureaucratic power within community forestry systems (Ojha, 2013). Rather than being a means of strengthening local management, CFOPs are used by forest officials and local leaders as a vehicle to legitimize top-down control (Toft et al., 2015). It therefore appears that community forestry is dominated by the forestry bureaucracy through its use of the 'forest science' notion (Devkota, 2010; Ojha et al., 2007; Paudel and Ojha, 2007). This dominance is against the spirit of decentralization which requires transfer of significant powers and "downward accountability" of local authorities (Agrawal and Ribot, 1999). In addition, the autonomy of CFUGs is often disrupted by circulars, guidelines and directives issued by Department of Forest, its District Forest Officers and their staff, which are in conflict with the provisions of the Forest Act. As a consequence CFUGs become upward accountable.

Developments similar to those described for Nepal have also been observed elsewhere, and several authors therefore point out that community forest management has been undergoing recentralization against the original ideas and values of decentralization forming the basis for participatory management (Agrawal and Ribot, 1999; Gauld, 2000; Larson and Ribot, 2007; Ribot et al., 2006; Sahide et al., 2016; Schusser et al., 2015).

In this paper we explain how the authority devolved to local communities is being seized back by forest bureaucracy, not by reforming legislation but through inventory requirements, circulars and local DFO decisions, largely undermining the bureaucracy's own formal system. Thus, by taking the case of community forest inventory in Nepal, we explore how the bureaucracy is using technical requirements and the notion of forest science for recentralization, especially by falsifying cases and manipulating results to serve the bureaucracy's interests.

2. Study area and methods

2.1. Study area

The research was conducted in a mid-hill district in Western Nepal,