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What (De)Motivates Forest Users' Participation in Co-Management? Evidence from Nepal

Jude Ndzifon Kimengsi [1,*], Prabin Bhusal [2], Anisha Aryal [3], Maria Vio Bianca Coronel Fernandez [3], Raphael Owusu [3], Anand Chaudhary [3,4] and Wicki Nielsen [3]

1 Institute for Tropical Forestry & Forest Products, Technische Universität Dresden, 01737 Dresden, Germany
2 Institute of Forestry, Tribhuvan University, Pokhara P.O. Box 43, Nepal; pbhusal@iofpc.edu.np
3 Department of Food and Resource Economics, University of Copenhagen, DK 1870 Copenhagen, Denmark; xqb629@alumni.ku.dk (A.A.); bpr313@alumni.ku.dk (M.V.B.C.F.); svm244@alumni.ku.dk (R.O.); bcx117@alumni.ku.dk (A.C.); nlx101@alumni.ku.dk (W.N.)
4 Ministry of Industry, Tourism, Forests and Environment, Biratnagar 56600, Nepal
* Correspondence: jude_ndzifon.kimengsi@tu-dresden.de; Tel.: +49-352-033-831-213

Received: 15 May 2019; Accepted: 14 June 2019; Published: 16 June 2019

Abstract: The co-management concept has been echoed in scientific literature for over two decades. Emphasis has been tailored towards an understanding of structural and functional issues linked to its application and the outcomes thereof. However, a crucial aspect which still begs for scientific and policy edification, concerns the motivational drivers of actors' participation in co-management arrangements. Studies contend that actors are motivated to participate in co-management based on their perceived benefits (e.g., income). Conclusions from these lines of argument further raise a theoretical quagmire, requiring further grounding, with regards to context-specific (de)motivators of users' participation in co-management. The case of Nepal is pertinent. Although Nepal has a rich community-based forest management history, scientific investigations have virtually ignored the motivational drivers of participation in the co-management of natural resources (forests). Against this background, this paper seeks to explore the following: (i) the decision-making and monitoring structure of rules regulating the co-management of forests, (ii) the implications of this system on users' motivation to participate, and (iii) the motivational drivers of users' participation in co-management. To achieve this, five focus group discussions and 10 key informant interviews were conducted in five villages (Kunjo, Titi, Parshyang, Cchayo, and Taglung) within the Annapurna Conservation Area (ACA). We further employed narratives, framework, and thematic analyses to discuss the decision-making structure and motivational aspects of co-management. The results point to the following conclusions: (1) Despite the rather top-down decision-making setting, users remain motivated to participate in co-management. (2) Interestingly, the motivation by actors to participate is not largely driven by users' perceived benefits. The results present another twist, a deviation from the previously understood rationale, which should be factored into co-management theory development. However, the paper equally makes a succinct request for further studies, including quantitative investigations, to ground this assertion.

Keywords: participation; co-management; forest users; benefits; ACA; Nepal

1. Introduction

1.1. Co-Management in Natural Resources

In the 1990s, a new wave of decentralized natural resource management gained popularity in most countries of the Global South. Prior to this, conservation area management for most nations

assumed a leviathan approach, in which state agencies forced down their conservation agenda on local people [1–4]. This state-driven management approach failed in several contexts to address the goals of preserving biodiversity and the related social complexities in the tropics [5], leading to negative repercussions on the socio-ecological dynamics of conservation sites [6–9]. Fringe communities adjacent to conservation areas suffered physical displacement, crop raiding, and livestock loss. This precipitated anti-conservation activities such as poaching, logging, and agricultural encroachment [10].

The new dispensation of decentralization saw the introduction of numerous forms of participatory natural resource management models [11–14], which were implemented through several forms of community-based models. One such model is the co-management approach. Co-management refers to a negotiation process involving two or more stakeholders who define and guarantee a fair sharing of the decision-making arrangements; planning; and management functions, rights, obligations, and benefits thereof in the management of natural resources [15–18]. This approach sought to fuse two usually opposing objectives—human development and natural resource conservation—to derive a mutually beneficial relationship in which both objectives are achieved as championed by their respective stakeholders. A distinction is made between community management and co-management; whereas the former implies that natural resources are exclusively managed by local communities, the latter (co-management) involves several players (state, local authorities, non-governmental organizations, local communities, etc.), making the communities just one of the players in the process [19]. Co-management is premised on a partial devolution to local communities, which almost invariably occurs in response to pressure from international institutions challenging the order which was marked by centralization [19]. It could take the form of informal, quasi-formal, or formal arrangements [9,18]. The latter is usually met with lukewarm participation by state actors, who are generally not willing to undertake effective and binding power-sharing arrangements [20–22]. Irrespective of the resource status, actors involved in co-management processes seek to promote their agenda [23,24]. This model mirrors the relationship and formal agreement between the state and community actors [19,25] who are all motivated (albeit at different levels) to participate in this process.

1.2. Motivational Drivers of Participation

The philosophy of participation is no longer new in the natural resource management and rural development lexicon of most societies [26–29]. Viewed as a catalyst of social change [30], participation has not only been spread through technology transfer in rural development research, but also by challenging state control in the management of natural resources [19,31]. Participation involves three interconnected, but different processes: (1) the involvement of local people in decision-making; (2) the inclusion of local people's perspectives into programs; and (3) the assurance of peoples' participation in benefit sharing from the process [32].

The application of participatory methodologies in natural resource governance has been acknowledged by development practitioners as an effective mechanism for managing existing conflicts, while minimizing the tendency for future conflicts to occur [33]. Despite this acknowledgment, participation has been described in some cases as a new form of tyranny [34], especially in cases where tokenism predominates, shielding the dominance of elites who end up capturing the entire resource management process and the benefits thereof [26]. In this regard, those who participate in the management of natural resources are hardly the true representatives of stakeholders who are directly affected by the decisions being made [35]. Agrawal's typology [27] presents a useful tool to appreciate different forms of participation. Apart from the eight rungs of citizens' participation [26], Agrawal identified six levels of participatory behavior, ranging from "nominal participation" (simple membership in a group), to "interactive (empowering) participation", denoting a situation where participants have a voice and influence the decisions and subsequent course of action (Table 1). In principle, people's perceived benefits could improve their participation, placing them within the active and interactive participation strata. However, several factors (beyond perceived benefits) could shape people's decision to participate in these arrangements.

Table 1. Agrawal's typology of participation.

Form of Participation	Characteristic Features
Nominal participation	Membership in the group
Passive participation	Being informed of decisions ex post facto; or attending meetings and listening in on decision-making, without speaking up
Consultative participation	Being asked an opinion in specific matters without guarantee of influencing decisions
Activity-specific participation	Being asked to (or volunteering to) undertake specific tasks
Active participation	Expressing opinions, whether solicited, or taking initiatives of other sorts
Interactive (empowering) participation	Having voice and influence in the group decision-making

Adapted from [27].

A significant body of literature shows that the driving forces behind participation in natural resource management are contextual; people are motivated to participate due to their embedded socio-cultural, economic, and political benefits [36,37]. Some of the widely documented drivers include cultural benefits, financial benefits, incentives, and prior established links with conservation agents, among others [38,39]. The literature on what motivates people to participate in co-management arrangements is negligible, at least in the context of Nepal. We contribute to unlocking this "black box" by analyzing the range of factors that (de)motivate forest users' participation in co-management in the context of the Annapurna Conservation Area of Nepal. An understanding of these drivers is essential to inform future community-based forest management arrangements, for which Nepal is reputed.

1.3. Community-Based Forest Management in Nepal

As a country, Nepal exhibits significant heterogeneity, encompassing groups of different socio-economic class and interests. This heterogeneity coincides with the diversity in community-based forest management groups [40] and forest dependency [41]. Such disparities are also reflected in the attitudes and behavior of individuals towards community-based practices [1,42]. Before the introduction of different forms of community-based forest management in Nepal in the late 1970s, forests were managed in the form of traditional or indigenous systems through informal co-operation between the communities and forest officials [43]. Upon the recognition of the failure of centralized forestry to conserve forests, different models of community-based forest management were introduced, including a complete devolution model, Community Forestry, and involving greater management autonomy by communities through Community Forestry User Groups (CFUGs) with the supervision and technical facilitation of District Forest Offices (DFOs) [40,41,44]. The leasehold forestry model focused on meeting the twin objectives of regenerating degraded forests and alleviating rural poverty [40,45,46]. This model involves collaboration between the government and the communities, in which resources are shared equally between the two actors [40]. Community-Based Conservation (CBC) was developed, which recognizes the role of local people in planning, decision-making, implementation, and monitoring of the conservation works [47]. This last model is used for conservation areas in Nepal. In Nepal, it is steered by the Annapurna Conservation Area Project (ACAP) and implemented through Conservation Area Management Committees (CAMCs) and relevant sub-committees [44].

In the context of Nepal, while scientific evidence on the governance arrangements and outcomes of community-based forest management have been investigated around conservation areas [44,48], very little is known regarding forest users' motivation to participate in co-management arrangements [49]. For instance, an earlier study in Nepal contends that people are motivated to participate because of their perceived income benefits [37]. This contention virtually ignores intrinsic motivational elements as drivers of participation. Studies are therefore needed to fill this gap, and to inform future co-management policies. Using the case of ACAP, we contribute to bridging this knowledge gap by exploring the drivers of (de)motivation of forest users' participation in co-management. Against this background, the objectives of the paper are threefold: to analyze (i) the decision-making and monitoring structure of rules regulating forest co-management in ACAP, Nepal, (ii) the implications of this system on users' motivation to participate, and (iii) the motivational drivers of users' participation

in co-management. The next sections of this paper are organized as follows. Section 2 outlines the study area, methods employed in data collection, and data analysis. Section 3 presents the results of the co-management arrangements, drivers of forest users' motivation to participate in forest management activities, and their implications thereof in the context of Nepal. Section 4 discusses the results, and Section 5 provides the conclusions.

2. Materials and Methods

2.1. Study Area

The Annapurna Conservation Area Project (ACAP) (Figure 1) is the first and largest protected area in Nepal [46,47,50]. Launched in 1986, it covers an estimated area of 7629 km^2 and is home to over 100,000 people who live in five districts [46]. The ACAP area is an example *par excellence*, of a site that sought to empower local communities to participate in natural resource management. In this regard, it was the first protected area that refrained from using military interventions in enforcing natural resource conservation rules. The goal of ACAP is to achieve sustained balance between nature conservation and the socio-economic improvement of communities in the Annapurna region. This broad vision is overseen by the National Trust for Nature Conservation (NTNC), an independent regulatory body [46].

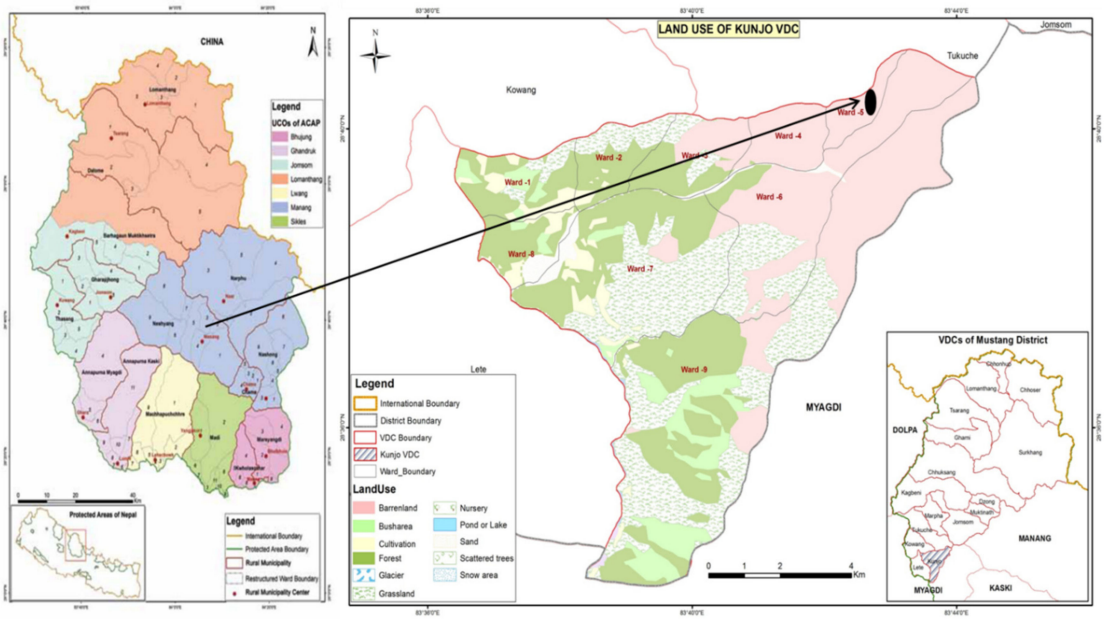

Figure 1. Location of the ACAP (Annapurna Conservation Area Project) area in Nepal.

Agriculture and tourism based businesses are the key livelihood activities of communities in the ACAP area. They cultivate crops; keep livestock; and collect wood, fuelwood, and non-timber forest products (NTFPs) such as mushroom from the forest. Crops are grown on terraced fields spread around the settlements. The major crops are barley, buckwhite, maize, vegetables, potatoes, and apples. Cultivation is supplemented by animal husbandry, involving the rearing of cows, yaks, goats, and horses. Similarly, hotel and trekking businesses are other important livelihood activities that run throughout the year.

Co-management efforts in the ACAP area were initiated in 1986 through the establishment of Conservation Area Management Committees (CAMCs), guided by the integrated community-based conservation and development approach. This is a broad-based and inclusive committee involving representatives of all-natural resource user groups, women, and youth groups, including the lower caste. In principle, it serves as a platform for the planning and organization of co-management activities

in the ACAP area. Within the ACAP area, five villages were purposively selected for the study to include Kunjo, Titi, Parshyang, Taglung, and Chhayo. These villages, based on pre-field studies, were judged to effectively mirror co-management activities (in the context of forest resources) that were of interest in this study. They were equally chosen based on their level of organization and representation in CAMC activities. The villages account for an estimated 153 households (Table 2) in the Lower Mustang District (CAMC work plan, 2015). Another key consideration was the proximal nature of these villages to the ACAP forest area, they are all found within 3 km of the ACAP forest area. Such proximity was judged to be crucial in guiding their level of interaction with the forest. To ensure representativeness, we targeted all the classes of people in this study including poor, very poor, middle class, and rich households.

Table 2. Description of study site.

Village	Total no. of HHs	Average HH Size	Distance from the Forest (km)	No. of FMSCs and WGSCs	Effective Year	Leadership Gender
Kunjo	21	4	1.5	FMSC–1	2014–2019	FMSC: 11 members, 9 males (1 Dalit) and 2 females (Dalits)
Parshyang	33	4	1	WGSC–1		WGSC: All females
Titi	13	5	1	FMSC–1 WGSC–1	2014–2019	FMSC: 18 members, 12 males (5 Dalits) and 6 females (6 Dalits) WGSC: All females
Taglung	19	3	2–3	FMSC–1 WGSC–1	2014–2019	FMSC: 11 members, 9 males (1 Dalit) and 2 females WGSC: All females
Chhayo	28	5	2–3	FMSC–1 WGSC–1	2014–2019	FMSC: 9 members, 7 males (4 Dalits) and 2 females (2 Dalits) WGSC: All females

Source: Authors' compilation. Note: Effective year denotes the valid period of membership and leadership status. HHs= Households; FMSCs= Forest management sub-committees; WGSCs=Women group sub-committees.

2.2. Data Collection

This paper is a product of an in-depth qualitative investigation on governance in community-based forest management in Nepal, within the framework of the Sustainable Tropical Forestry (SUTROFOR) field study (for details, see https://sutrofor.eu). The design and validation of the research instruments for this study was completed between January and February 2019, while data collection took place in February and March 2019. Two key instruments were used, focus group discussion (FGD) and semi-structured interview guides. The FGD consisted of 14 open-ended questions with a focus on respondents' knowledge and appreciation of the co-management decision-making and monitoring structure in the forest sector, and the (de)motivational factors of users' participation in co-management. The interview guide (12 items) focused on issues linked to the decision-making ladder, the level of participation of members, the level of (non)inclusive representation within CAMCs, their motivation to participate, and other related governance issues to be addressed within CAMCs and Forest Management Sub-Committees (FMSCs). The research tools were initially tested and further refined before effective data collection began.

Prior to the start of data collection, relevant governance documents (CAMC operational rules and management plans) were reviewed to gain further insights on the institutional set up and forest management activities of the ACAP area. The data collection process began with focus group discussions which were conducted with five key actor groups: 1 forest management sub-committee (FMSC), 2 women groups, 1 youth group, and 1 Dalit (lower caste) group. These groups consisted of between 8 and 10 participants who were all given an opportunity to express themselves and to share their views on the co-management process. Each FGD lasted between one hour and one hour thirty minutes. From each focus group, we identified key informants and conducted in-depth interviews with them to profoundly unearth some issues which might not have been openly discussed. In all, there were ten key informant interviews (KIIs): 3 from the Dalits, 3 from FMSC members, 2 from women groups, 1 from the youth group, and 1 interview conducted with the Chairperson of the

CAMC. The latter was conducted to gain insight into the Chairperson's impression of the management setup and their relationship with the National Trust for Nature Conservation (NTNC), the overall decision-making body in the Annapurna Conservation Area Project (ACAP) (Figure 2).

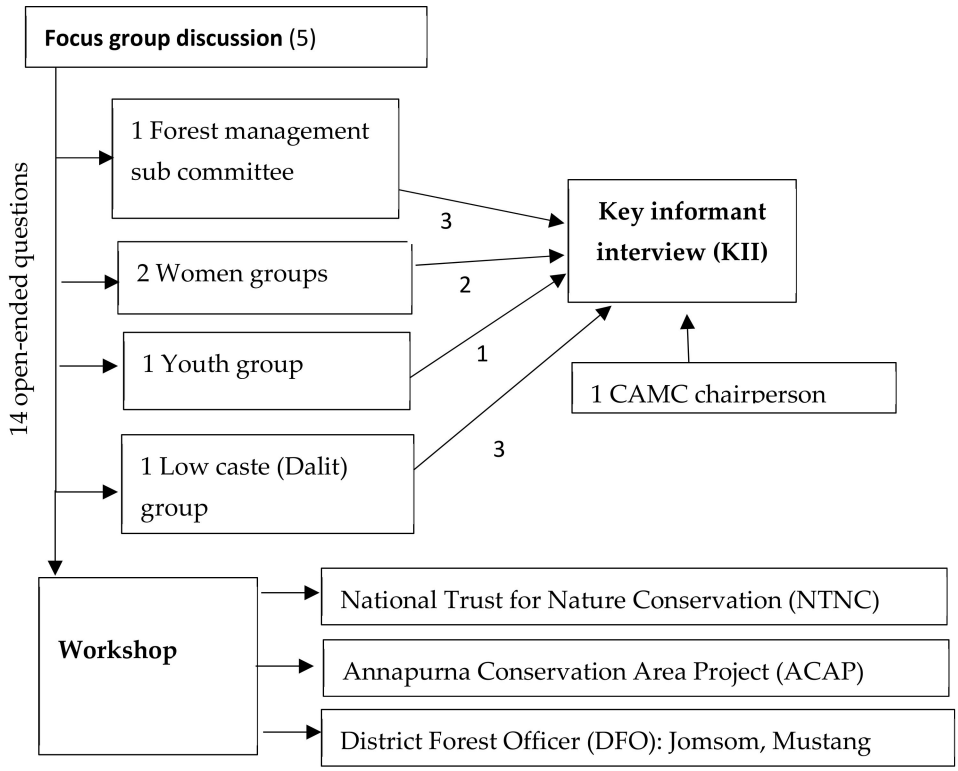

Figure 2. Data collection chart. Note: CAMC = Conservation Area Management Committee.

To further triangulate the information obtained from lower and mid-level stakeholders, the team organized an enlarged workshop session with the NTNC and the Divisional Forest Officials (DFOs) in Jomsom to discuss key governance aspects with regards to the decision-making and monitoring structure, the challenges involved in the implementation of ACAP activities through CAMCs, and the key motivational factors of members' participation in co-management. We used a local translator to interpret the information. In addition, three of the co-authors (Prabin, Anand, and Anisha) are Nepali and supported the translation process. The enlarged stakeholder workshop with NTNC and DFOs was organized in the English Language. Field notes were used to record the FGDs and interviews. The data obtained were transcribed. Based on this, we analyzed the results through narratives, framework, and thematic analysis. Focus here was on the co-management decision-making structure (including roles and interests of actors), the implications of the current structure on users' participation, and the motivational drivers of users' participation in forest management activities.

3. Results

3.1. Decision-Making and Monitoring Structure

The governance and decision-making structure (Figure 3) in the Annapurna Conservation Area Project (ACAP) show three segments: The first segment (a) which indicates a strong flow and counter flow in decision making involves the National Trust for Nature Conservation (NTNC), ACAP, and the Conservation Area Management Committees (CAMC). Here, key decisions, policies and management plans are developed and agreed upon by the NTNC/ACAP. This is done by considering inputs from the CAMC with regards to the lessons learnt in the implementation of management plans and in coordinating sub-committees and forest users during the process. The second segment (b) links the

CAMC and the sub-committees (forest management and women sub-committees). This segment shows a break in the counter flow of information between the women sub-committee and the CAMC, suggesting a timid role played by women in the whole governance ladder (decision making, policy development, monitoring, and regulation instruments). However, both sub-committees reserve the right to manage and use resources in the ACAP. The third segment (c) further shows a break in the flow and counter flow of information between the sub-committees and the general users. While the forest management sub-committee prevails on the general users with regards to the decisions coming from above, this is not the case with the women sub-committee members who themselves experience a break in the upward flow of their views to the ACAP through the CAMC.

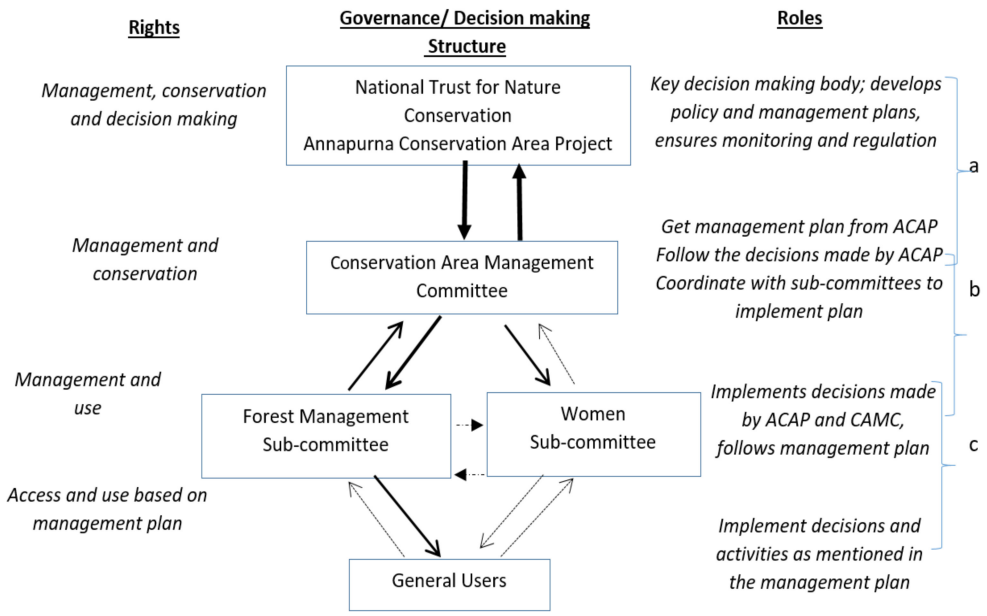

Figure 3. Governance/decision making structure, roles, and rights of co-management actors in ACAP. Note: Bold arrow represents strong decision-making role; the strength decreases as the thickness of arrow decreases. The decision making flow is grouped into three segments a, b, and c as explained above.

The above structure portrays a series of defects in the co-management arrangement. Firstly, co-management generally leads to the development of stakeholder platforms in which ideas and interests are discussed and agreed upon mutually by the parties involved. In the case of the ACAP, there is no clear platform that facilitates the interaction between actors from all three identified segments.

A strong downward spiraling of policies, decisions, and monitoring mechanisms are introduced. While the members of the sub-committees and ACAP are to be chosen from among the general users, the criteria for selection is not clear and well documented; this brings into question the legality of the representatives in these committees. It is then possible to predict a situation of limited users' participation, based on the fragmented upward feedback situation. Segment (c) represents a potential demotivating factor for users' effective participation in co-management.

Case of Decision Making in Timber Harvesting

The case of timber harvesting in the Annapurna Conservation Area Project (ACAP) (Figure 4) indicates a flow of information from the users through sub-committees to the ACAP. Here, users prepare their applications based on the need for timber, this is channeled through the forest management sub-committees (FMSCs) to the Conservation Area Management Committees (CAMC). The CAMC then consults with ACAP to request approval. Following approval, timber harvest passes is issued to the users, specifying the quota to be harvested and the duration. While this structure shows a strong incorporation of needs at the bottom, it still does not clearly depict a co-management structure.

For instance, the rights, obligations, commitments, activities, and monitoring mechanisms are to be negotiated and agreed upon by all actors. However in this case, the influence and decisions are largely coming from ACAP. The issue of joint visioning, decision making, and the assignment of roles and responsibilities is not effectively operational at this level. Equally, the breakage of the flow of information explains why forest users are not fully clear about the reasons behind the acceptance or rejection of their application to harvest timber. This suggests the need for a common platform to deliberate and agree on governance, management, and use issues. Several cases of the rejection of harvesting applications were observed in the ACAP area that were linked to unclear and irregular top-bottom information flow and a weak counter flow from the bottom. Consequently, most timber harvesters do not trust the current decision-making ladder and feel that they benefit very little in the arrangement. This has implications on their motivation to participate as discussed subsequently.

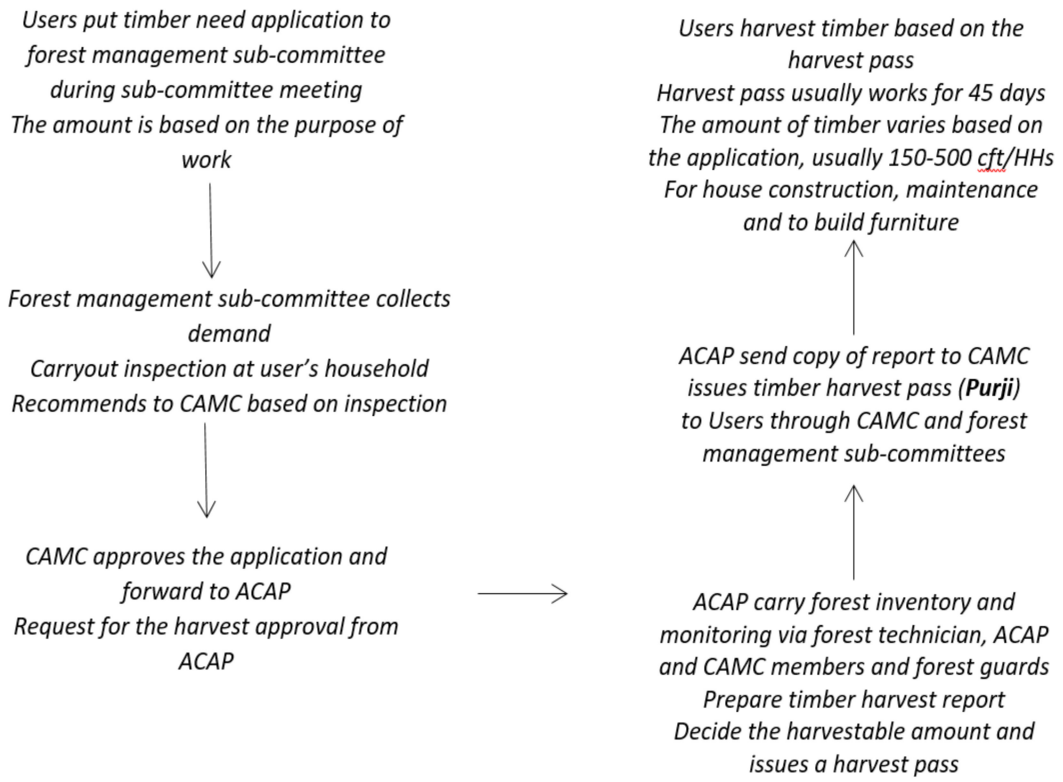

Figure 4. Flow of decision making in timber harvesting process.

3.2. Motivational Drivers of Participation in Co-Management

The motivational drivers of participation in this context are grouped under three categories: economic, social, and ecological (Figure 5).

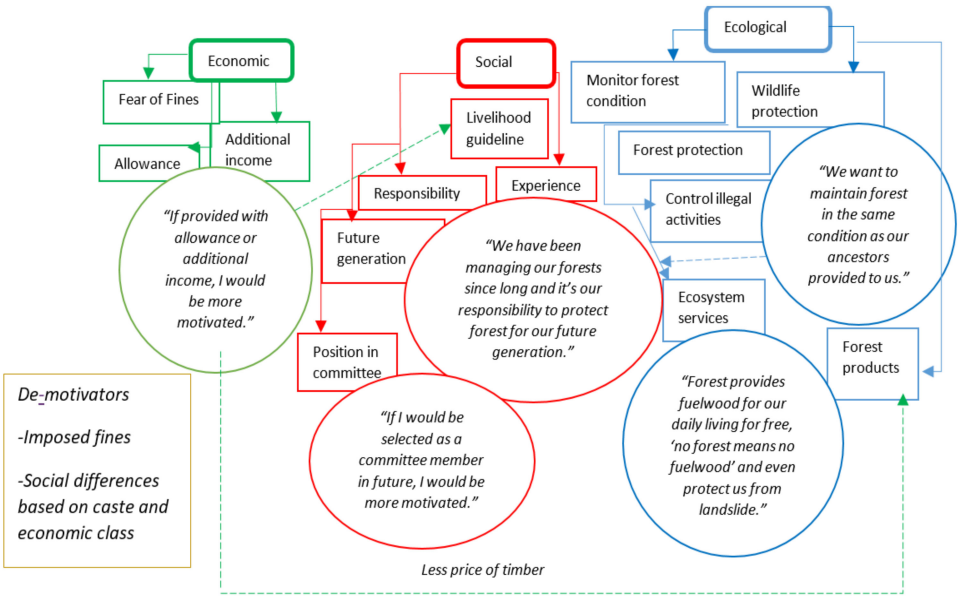

Figure 5. The web of drivers for forests users' (de)motivation to participate in co-management.

3.2.1. Economic Motivation

A few respondents argued that they are motivated to participate since they gain some income from timber extraction and other activities. Some of these activities include providing labor in fulfilling programs in forest conservation and management activities, community development, tourism development, alternative energy, conservation education, and women's development based on their operational plan (Table 3). This applies mainly to people from disadvantaged groups or those with low economic status. The latter base their motivation to participate on the allowances they secure during participation in forest management activities.

Table 3. Benefits received by the users.

Forest Products	Annual Need per HH	Amount (per Local Market)
Timber	40 cft	NRs 200/cft **
Fuelwood	50 Bhari *	NRs 250/Bhari
Fodder	18 Bhari	-
Bamboo (Nigalo)	30 Bhari	NRs 50/Bhari
Leaf litter	100 Bhari	-
NTFPs	Household use	-

* Bhari is a local measurement unit and 1 Bhari = 25 kg. ** This amount can be changed by the general assembly; NTFPs = Non-timber forest products; cft = cubic feet; NRs = Nepalese Rupees; HH = Household. Source: conservation area management plan, 2017.

The additional income users generate from selling forest products, especially when royalty rates to the CAMC and the Forest Management sub-committee (FSMC) are lowered, also represents another motivational aspect. While they felt motivated to participate, very few of the members (especially the youths) showed interest in joining the management committees. Furthermore, while users are aware of the prohibited acts, there is no clear reporting process of illegal activities and their corresponding fines and penalties. This uncertainty creates fear among general users that they may commit a prohibited act without realizing it.

3.2.2. Social Motivation

The general users in the conservation area rely on forest products for subsistence purposes and for generating cash income in support of their agricultural activities. The latter can be attributed to the

fact that a majority of the users consider agriculture as their main source of livelihood. According to respondents, the co-management guidelines, programs, and activities provide a clear plan and vision to protect and manage the forest. This stability and security in their livelihood motivate them to participate in co-managing the forest. Social prestige as community leaders is another important element that triggers people's participation. Some people have used their representation to further grow in the political landscape of Nepal. Having a sense of responsibility to protect the forest for future generations is by far the most recurrent driver of participation, as raised in the focus group discussions and interviews. Participants acknowledge the hard work exerted by their great grandfathers in managing the forest area they are utilizing today, and they want to do the same. As such, some of the users develop a sense of commitment to lead the community and to serve as CAMC or sub-committee members. However, social differences based on caste and economic class demotivates groups, especially the marginalized groups: the poor, women, and the lower caste (Dalits). This translates into nominal and/or passive participation in decision-making and implementation. The demotivated groups are more dependent on the forest, indicating a dire need for their increased inclusion in the decision-making and management spheres.

3.2.3. Ecological Motivation

In relation to ecological issues, users are motivated to participate because of their awareness that it promotes forest and wildlife monitoring and protection. ACAP has been investing in awareness and capacity building for conservation; users now understand that despite getting less direct forest benefits, they enjoy other ecosystem benefits. However, victims of human–wildlife conflicts (crop damage and livestock depredation) are demotivated by this activity since it negatively affects their livelihood. Users of the conservation area prove to have high local environmental awareness despite their limited educational background. They were able to demonstrate knowledge on different ecosystem services, how it impacts their everyday lives, and the benefits they can derive from their environment.

While the general trend of motivation to participate is skewed towards the acquisition of benefits, forest products such as timber, fuelwood, and NTFPs [51], this does not apply in the case of ACAP. Here, a greater number of participants expressed their motivation to participate. Surprisingly, this was not strongly linked to such benefits; rather, they had intrinsic motivation to protect the forest, suggesting that economic incentives are not always the key motivator for participation in natural resource co-management.

4. Discussion

The nuanced link between actors' motivation to participate and the forces shaping their motivation is a subject of much interest in most Global South countries, where community-based forest management models have been introduced. We contributed to the search for clarity through a qualitative investigation by exploring the following: (i) the decision-making and monitoring structure in the co-management of ACAP, (ii) the implications of this system on users' motivation to participate, and (iii) the motivational drivers of users' participation in co-management.

Economic incentives; feeling of belonging and cultural identity; social cohesiveness; and a desire to control and have access to natural resources are the key motivational factors for people's participation in the co-management of natural resources [51]. While roles seem to be clearly defined, the decision-making and monitoring structure is largely vertical in nature (top-down). This does not allow room for the horizontal arrangement that co-managements work to produce. ACAP and the CAMC wield the exclusive power to make decisions, which are then forced down through sub-committees to the users. The sub-committees and users do not know how plans are made and implemented nor the scientific basis behind such formulated plans. The legal arrangements also detach them from claiming the position in decision making as most of the decisions are made by ACAP, with inputs from the CAMC. While there is a strong top-down information flow (national to sub-regional), there are a series of breaks in the flow and counter flow of information between local and sub-regional-level

actors. Such a situation could represent a demotivating element for users. However, our study observes that the top-down decision-making structure, although being a flaw, does not largely affect users' motivation to participate. Zhu argues that the success of co-management is governed by the soundness of the institutional set up, and the decision-making structure that can address the interest of the local power actors who depend on the resources and have been managing those resources [52]. Therefore, the opinion of ground-level actors (users) is very important while formulating or implanting co-management policies [38]. In our case, the decision-making structure discourages users from participating in sharing their views and defending their interests. This may slowly decrease the interest of users to voice their opinion, eventually demotivating them. The decision-making structure sidelines users who are judged to be ignorant; this will lead to unfair negotiation and agreements where local knowledge and practices are ignored [44].

Connected to this is the unclear selection of committee representatives. In the co-management approach, the stakeholders negotiate over their ideas and interest for equal partnership in management functions, entitlements, and responsibilities for given natural resource in a specified territory [25,53]. The information break suggests that policies and decisions are forced on the community from the governing authority. De Pourcq [54] depicts this as the extreme form of the co-management arrangement in which the state agency has total control despite its consultation with user groups. Surprisingly, this form of governance structure and practice did not feature as a key demotivating factor. Field evidence proves that people remain motivated to participate; this could also be attributed to the lack of a clear understanding by the users about the co-management principles and activities. Rasmussen [55] contends that people generally accept the principles of conservation as long as they do not run counter to ideas about who may control resources. So, the voices of the stakeholders should be heard and incorporated to build a sense of collective ownership and participation.

A key motivational driver, largely intrinsic, as observed in this study, is the sense of responsibility to protect the forests for future generations. This finding resonates those of [56] in which non-cash motivations were top drivers of co-management practice. Caution should be applied, however, because the reliance on people's behavior (in this case reason for motivation) without factoring costs and benefits, may nuance our understanding of people's co-management behavior [57]. The remoteness of the study site may well be a factor that is responsible for such closeness with nature. Given the increasing trend of population growth and the expansion of communities, it remains questionable whether economic incentives will not override people's intrinsic motivation to participate [51]. The results, therefore, contradict the whole idea behind the co-management philosophy where co-management is seen as the sharing of power and responsibility between actors (communities and governments and/or states and/or NGOs) [32,58]. Specifically, our results contradict those of Bajracharya [47], who held that Community-Based Conservation (CBC) involves the local people in planning, decision-making, implementation, and monitoring of conservation works. Our work further contradicts the results in [46], which highlight the role of ACAP in empowering local communities to participate in natural resource management. However, our results resonate with the results in [26] and [9], that in resource management, the elite in the society mostly end up controlling the entire resource management processes.

5. Conclusions

As a power and responsibility sharing process that is geared towards achieving the twin objectives of conservation-area management and livelihood sustenance, co-management has been applied for more than two decades, in several contexts, with mixed outcomes [16,18,22]. A crucial element in this process is the creation of an institutional set up (a platform) where multiple state and non-state actors can negotiate and arrive at a consensus with regards to their rights and obligations in the collective management of resources of interest. At the heart of the failure in most co-management arrangements is a weak local institutional set up, which does not provide an avenue for a strong community voice in the process [22], including the state's (un)willingness to improve [20]. This explains why emphasis on the need to craft an institutional levelling process characterized by the reconstitution of state and

community driven institutions (and their actors) in a more meaningful bottom-up process has been the subject of much interest [9,59]. In this paper, we argue that there is a weak co-management scheme (largely top-down) in the context of the Annapurna Conservation Area, the largest conservation area in Nepal. Furthermore, the decision making in the current institutional setting does not deter users to participate, as they remain intrinsically motivated. Though several motivational forces collectively drive users' participation, there is no strong external factor that encourages participation.

While several studies have investigated co-management processes and their outcomes, the motivational drivers of user's participation in this process lends itself very much to scientific and policy edification. A recent study by Akwah Neba et al. [60] investigated the supply and demand component of civil society organizations in participatory processes. The authors contend that five key factors shape the effectiveness of civil society's influence in forest management, namely, access to information; funding autonomy; length of time since establishment; the experience of a civil society organization and its ability to advance the interests of the represented constituency; and the independence and discretionary right to say no to interventions [60].

As the tenure of ACAP is over, and discussions are underway to define the future management approach for this area, it is germane to rethink the future co-management structure and functioning [61]. The major thrust of this study was in identifying the motivational factors of forest users' participation in co-management. Interestingly, the motivation by actors to participate is not largely driven by users' perceived benefits. This represents another twist, a deviation from the previously understood rationale that should be factored into co-management theory development. Based on the observed non-inclusion of underprivileged groups, two possible scenarios are envisaged: (i) a further deprivation and exclusion of marginalized groups, leading to their uncontrolled extraction of forest resources, or (ii) a more hopeful situation that ensures a greater inclusion of marginalized groups. In this study, we equally make a succinct request for further studies to (i) quantitatively investigate the determinants of forest user's motivation in co-management, (ii) identify pathways to ensure a meaningful reconstruction of local institutions to ensure an effective co-management negotiation process, and (iii) investigate conditions under which the state's willingness for meaningful and fairer negotiations in co-management can be enhanced. This paper challenges future research to further situate these issues in the context of local power play and social learning.

Author Contributions: Conceptualization, writing—Original draft, J.N.K and P.B.; Methodology, A.A., Data collection, All; Formal Analysis; R.O and A.C; Formal Analysis, writing—review and editing, M.V.B.C.F.; writing—review and editing, W.N.

Funding: This research was funded within the Framework of the Erasmus Mundus Sustainable Tropical Forestry (SUTROFOR) Field School in Nepal, jointly organized by the University of Copenhagen (Denmark), Technical University of Dresden (Germany), Agroparis Tech (Montpellier-France), Bangor University (UK), and the University of Padova (Italy), in Partnership with Tribhuvan University, Institute of Forestry, Nepal.

Acknowledgments: We deeply acknowledge the participants who availed themselves for the focus group discussions and key informant interviews. We equally appreciate the role of the translator (Ashok Bhandari) who facilitated the discussions. We equally thank the three anonymous reviewers whose comments enriched the paper.

Conflicts of Interest: The authors declare no conflict of interest.

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