Exploring the relevance of community forest operational plan: users' perspective and implementation status

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Received: 9, August 2022 Revised: 9, November 2022 Accepted: 14, December 2022 Published: 31, December 2022

Community Forestry has long been considered an epitome of decentralized forest management in Nepal. The management of Community Forests are guided by their Operational Plans (OPs), the mandatory technical document. Their preparation demands substantial human and economic inputs. However, their extent of implementation and the significance of these plans to local user are topics of debate. In this context, this study analyzes users' perception about the OP and their implementation status. We took case study approach and conducted key informant interview (n=25), focus group discussion (n=16) and purposive household survey (n=246) in 15 Community Forest User Groups to compile required data. The perceptions were analyzed using qualitative methods. The results revealed that the users have poor understanding of their plans and considered the plan as technical legitimate documents. The implementation status of the plans was of sub-standard. Silvicultural operations prescribed in the operational plans were insufficiently carried out. We found that the users are adopting only the forest product harvest and utilization aspects of the plans. Provided the poor understanding of OPs among the users and quality of plan implementation, this study questions the relevance of current operational plans and emphasizes the need of reviewing the planning process so that their high-standard implementation can be assured.

Keywords: Forest management, management score, people perception, sub-standard implementation

Common Pool Resources (CPR) share two common attributes: i) it is costly to exclude the individuals from using the resources and ii) the benefit consumed by one individual subtract the benefit available to others (Ostrom & Ostrom, 1997). These attributes make the management of CPR challenging. The concept of Participatory Forest Management (PFM) arose as an odd to manage forests, one of the most valuable CPR (Acharya, 2002). Consequently, the PFM escalated quickly around the globe and approximately 730 million hectares of the forests in 62 countries representing 28% of the worldwide forest cover are being managed under participatory regime (Gilmour, 2016). Similarly, in Nepal, more than 22,000 Community Forest User Groups (CFUGs) are managing more than one third of country's forests and these CFUGs have evolved as one of the strong local level institutions to deliver multiple social and environmental outcomes (Aryal *et al.*, 2020).

Forest management is often guided by a series of government-formulated plans in both global and national contexts. In Nepal too, Community forests (CFs), involving locally organized community forest user groups with devolved rights and responsibilities (Thoms, 2008), require two basic documents to function legally. They are: i) the constitution: (the document covering the

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social and policy aspects of the CFUGs) and ii) the operational plan (OP): (the document covering biophysical aspects of the forest and technical management prescriptions). These two documents plans have broadly become a prerequisite for transferring right to local institutions (Rutt *et al.*, 2015). The plans are prepared for a fixed term (either 5 years/10 years period); the users lose their right to forest management if their OPs expire (Baral *et al.*, 2020). Therefore, CFUGs are required have active OPs specifying the system of forest management, forest conservation modalities and utilization pattern of forest products (DoF, 2014). The OPs include the management goals, the activities to be undertaken and the rules of forest product utilization and most importantly directly they serve as an agreement between Department of Forest and CFUGs.

The success of community forests largely depends on how well the OPs are prepared and implemented. Better the OPs, greater will be the control of local communities over forest resources, higher will be the opportunity for sustainable management of CF and greater will be the benefits from the forests (Charnley & Poe, 2007). Implementing the plans requires CFUGs capacity to understand and act on the prescribed actions. The poor understanding of the plans may lead to poor implementation and subsequent deterioration of the forest cover and conditions. Since CFUGs are considered as the major vehicles for community development, social inclusion and democratic civic engagement (Bhandari *et al.*, 2019; Kanel, 2006; Pokharel *et al.*, 2007), effective implementation of OPs can have diverse ecological, economic and social impacts. For example, the regular and effective implementation of silvicultural treatments could increase the availability of forest product to local users (Gurung *et al.*, 2013), whereas the passive forest management could have negative impact on the rural livelihood (Yadav *et al.*, 2009)

There is paucity of studies analyzing the user's perception about the planning process and the implementation status of the plans. Some criticize OPs for being technically complex. They criticize that the OPs are written by the technicians with the limited information of local users (Baral *et al.*, 2019; Springate-Baginski *et al.*, 2003). Others blame CFs are underutilized and benefit flows are stagnated (Cedamon *et al.*, 2017; Yadav *et al.*, 2009) mainly due to the poor implementation of OPs (Gilmour, 2018; Baral *et al.*, 2020; Baral *et al.*, 2019). Few have assessed the field level implementation of the OPs but they are site specific and surficial (Puri *et al.*, 2020). Therefore, a study on implementation of CF operational plan is necessary. In this background, this study aims to examine the users' perspective towards the plan, its implementation status and the relevance of the plan to the local communities for community forest management. In another word, this study intends to look into the plan through the users' eyes and examine which prescriptions of the plan are easily implemented and which are not and explore the socio-political-technical reasons behind it.

Materials and methods

Study area

Fifteen Community Forests of Sankhuwasava from mid hills were purposively selected for the study. Tree species composition (four *Shorea* forests, four mixed forests i.e. *Shorea-Schima-Castonopsis* forest and seven *Schima-Castanopsis* forests) and forest condition[1] (four forests in good condition, eight forests in fair condition and three forests in poor condition) were used as bases for the selection of the forests. The study forests were from altitude ranging between 400m to 1200 m above the sea level. The major tree species found in the study community forests were *Shorea robusta*, *Schima wallichii* and *Castanopsis indica* (Table 1). Regarding the socio-economic structure of the community forest, the CF members were comprised of ethnic background mainly indigenous communities and were somewhat subsistence agriculturist and local labor.

1 The forest condition was determined based on the Growing stock and Regeneration Status of the forest following Inventory Guideline 2064 prepared by Department of Forest

Total Growing Stock	>200m3 per ha	50-200 m3 per ha	<50 m3 per ha
Regeneration status	Good / Fair / Poor	Good / Fair / Poor	Good / Fair / Poor
Forest Condition	Good / Good / Fair	Good / Fair / Poor	Fair / Poor / Poor

Table 1: Description of the community forests selected for this study

SN	Name of Community Forest	Area (ha)	Year of handover (AD)	Number of member households	Forest condition (based on OP)	Major tree species
1	Archale	39.83	1993	113	Good	*Shorea robusta*
2	Dharma Devi	9.85	1992	57	Good	*Schima wallichii, Castanopsis indica*
3	Harsiddhi	34.82	1997	82	Fair	*Shorea robusta*
4	Thulopakha Dhungedhara	218.69	1993	245	Fair	*Shorea robusta, Schima wallichii, Castanopsis indica*
5	ArunSanguri	79.7	1997	81	Poor	*Shorea robusta*
6	Malbasekhop	12.5	1995	92	Poor	*Schima wallichii, Castanopsis indica*
7	Makar	2.3	1992	26	Good	*Shorea robusta, Schima wallichii, Castanopsis indica*
8	Chilauna Kharka	198.17	1996	202	Good	*Schima wallichii, Castanopsis indica*
9	Dholbaje	4.0175	2006	69	Fair	*Schima wallichii, Castanopsis indica*
10	Nigale Dandebhir	67.72	2001	190	Poor	*Schima wallichii, Castanopsis indica*
11	Manakamana	131.939	1993	170	Fair	*Shorea robusta, Schima wallichii, Castanopsis indica*
12	Pirima	20.49	1998	72	Fair	*Schima wallichii, Castanopsis indica*
13	Sighadevi	49.98	1997	109	Fair	*Shorea robusta*
14	Bhasme	40.72	1993	87	Fair	*Schima wallichii, Castanopsis indica*
15	Karkite Batashe	160.81	1996	284	Fair	*Shorea robusta, Schima wallichii, Castanopsis indica*

Methods

Perception mapping:

People's perception is fundamental to identify locally relevant priorities, knowledge and contexts which are useful to understand the capacity, priorities and management performance of CFUGs where on-ground management often do not resonate with stated policies (Puri *et al.*, 2020). To access people's perception and understanding of operational plans, Focus group discussion (n = 16), key informant interview (n = 25), which included representatives from FECOFUN, local leaders, school teachers and NGOs representatives) and household survey (n = 246) were used to collect and validate required information. The checklist used for focus group discussion and key informant interview was designed to cover the information related to the provisions listed in OPs, the extent to which they were implemented, the reasons for accepting or denying the plan and its implementation, and the shortcomings of the plans. The respondents for household survey were purposively selected (respondent with distinct socio-economic conditions including households from poor, medium and rich households and their position in CFUG). The questionnaire used for household survey was designed to understand the users'

perspective about the OP, its implementation status and relevance in the local context. Formal and informal meetings at the DFO with the officials were means for obtaining any missing data and validating the existing data from the stakeholders.

To structure the data collection process, the content of the operational plans of the study CFs were thoroughly reviewed and all the provisions mentioned in the plans were grouped into 5 broad topics, namely, Forest Protection, Forest Management and Silviculture, Forest Utilization, Expenditure Pattern and Miscellaneous as illustrated in Table 2.

Table 2: The categorization of OP provisions into broad categories i.e. forest protection, silviculture and management, forest utilization, expenditure pattern and miscellaneous

Categories				
Forest protection	**Silviculture and management**	**Forest utilization**	**Expenditure pattern**	**Miscellaneous**
Forest fire control	Thinning	Forest Products legal provisions	Expenditure for Forest Conservation	DFO Monitoring and evaluation
Patrolling	Pruning	Forest products harvest	Expenditure for community development	Women and disadvantaged groups targeted activities
Controlled grazing	Singling		Expenditure for Income Generating Activities	Capacity building activities
Biodiversity conservation	Bush clearance			Community development
Poaching and encroachment control				
Soil and water conservation				

Data collection and analysis

The data collection methodology was adopted from Puri *et al.* (2020). A scale of 0-2 was used for the subjective assessment of the state of forest management (i.e., to calculate the management-score), where 0 represented a score for the activity with no or negligible implementation; 1 = limited implementation; and 2 = full implementation of CF OP provisions. The CFUG members participating in the FGDs were asked to provide score for each of the provisions listed in their OPs. DFO officials were also asked to provide score for each of the provisions listed in their OPs. Then the average scores by broad management topics (called management score hereafter) for the CFs were calculated based on average of two scores (One from the discussion with CFUG and other from the DFO) for each of the sampled Community Forest. Field observation was done to validate the implementation status of every management activity highlighted during the FGDs.

Descriptive analysis was used to assess the current CFUG conditions both the biophysical and socio-economic status. Kruskal-Wallis (KW) test was performed to test if there is significant difference in management scores of CFs by their forest condition (Good, Fair and Poor Forests) and species composition (*Shorea robusta*, *Schima-Castanopsis* and Mixed Forests).

Results

Users' awareness about the content of the OP, its preparation process and its importance

Of the 246 respondents, 38% were aware about the OP during plan preparation, whereas 52% only heard about it and that too only during the CFs' general assembly. This adds up around (90%) of the respondents were aware through any means regarding the presence of the plan in the form of book (document) (Refer to Table 3). The knowledge regarding operational plan existed amongst CFUGs due to their presence in general assembly and during the plan preparation process where the forest officials approach the users and discuss the significance of the plans. The users though do not understand the process and technical aspects of the plan; the users are aware about existence of operational plan that is required for community forestry. Around 80 % of respondent (n=196) perceived OP preparation process as a Technical/Forester's job and they were unaware about their role in the preparation of OP. The respondents consider themselves as only "helpers" rather than partners in plan preparation process as they think only the forestry professionals have the knowledge to write in the plan. The local people's themselves undermine their local knowledge during operational plan preparation.

Table 3: Table illustrating how users found the presence of operational plan of the community forest

Knowledge regarding the presence of operational plan	Number of respondent (n=246)
During General Assembly	128
During plan preparation	93
Not specifically know about OP	25

Second, users' recognized the OP as a "Hariyo kitab" (Green book) and the reason for the name is because the book cover of CF OPs is mostly green. Among the respondents, 90% had seen the OP (Table 3) but most had never turned its pages or referred to it. This was attributed to lower literacy of most of the users, the language and the higher technicality of the plan, low time available and poor use of plan during implementation. The respondents even if tried to go through the OP text, they were obstructed by the use of technical phrases like sampling intensity, transect line, thinning, pruning, weeding and the contemporary national and international debates and requirements on climate change mitigation, adaptation, greenhouse gases. The first author observed how the local people (CF executives) turned the pages of the OP and showed the content irrelevant to them or beyond their capacity to understand the meaning. The respondents were unable to articulate the OP in action without support from the division forest officials. In addition, the technical and scientific names of the species were complex, the users recommended use of local names is more appropriate to them to understand.

Only a fraction of users (28%, especially the major position holders in CFUG) had actually read the plans. The major sections referred to were the section showing the block for intervention (timber harvest), punishment and rewards and the membership section. Other sections on climate change and gene conservation were redundant to the users. The CF executives had read the section of the OPs, as they are accountable to general members. It is the user committee who get questioned (especially the chairperson and secretary) in case of irregularity and since the legal cases are common in Commission for the Investigation of Abuse of Authority, the CF executives tend to educate themselves with the OP provisions so not to get tangled in these cases. The general users believe the plan is prepared with highest morale value with utmost diligence with no flaws at all. However, they have no interest to turn the pages of CF OP as they feel it to be role of executive members. The general members also do not have access to the document as it is kept by the secretary either in the CFUG office or at his home. The general members have no issues on the availability of the document to them. Hence, plan to users is seen of low relevance regarding its utility to the CFUG members.

Users' perception about the implementation status of OP

The results indicated that forest product harvesting (especially timber) was the most implemented activity with mean score (1.83) (Table 4).

Table 4: Management interventions/provisions listed in the community forest operational plans and their implementation status. The provisions were group with five broad topics and their implementation status were scores as per the methodology described by Puri et al. (2020).

	Forest protection						*Silviculture and management*				*Utilization*		*Expenditure pattern*			*Miscellaneous*				
Management intervention / CF	*Fire protection*	*Patrolling*	*Control grazing*	*Biodiversity Conservation*	*Poaching & encroachment control*	*Soil water conservation*	*Thinning*	*Pruning*	*Singling*	*Bush cutting*	*Following legal provision during harvesting*	*Forest Product harvest*	*Expenditure for Forest Conservation*	*Expenditure for community development*	*Expenditure in Income Generation Activities*	*Monitoring and Evaluation from DFO*	*Programs for Women and DAGs*	*Capacity Building Activities*	*Community Development Activities*	*Average score*
Archale	1.5	1.5	2	1	1	2	1.5	0.5	0.5	1.5	1.5	2	1	1.5	0.5	1	0.5	0	0.5	1.13
Dharma Devi	1.5	1.5	1	1	1	1	1	0.5	0.5	0.5	2	2	0.5	1.5	0	0.5	0.5	0.5	0	0.89
Harsiddhi	1	0.5	1	1.5	0	1.5	0.5	0	0	1.5	2	2	0.5	1	0	0.5	0.5	0	0.5	0.76
Thulopakha Dhungedhara	2	1.5	2	1.5	1.5	1.5	1	0.5	0.5	1.5	2	2	1.5	1.5	0.5	1	1.5	1.5	1.5	1.39
ArunSanguri	1	1	1.5	1.5	1	1.5	1	0	0	0.5	2	2	0.5	1	0.5	0.5	0	0	0.5	0.84
Malbasekhop	0.5	1	0.5	1	0.5	1.5	1	0	0	1	1.5	2	1	1.5	0	0.5	0	0	0.5	0.74
Makar	1	0.5	1	0.5	1	2	1	0	0	0.5	2	2	1	1.5	2	1	1	1	2	1.11
Chilauna Kharka	1	0.5	1.5	1	0.5	1	0	0	0	0	1.5	2	0.5	1	0.5	1	0	0	1	0.68
Dholbaje	1	0.5	1.5	1	0.5	1	0.5	0	0	0.5	1.5	1.5	1	1	0	1	0	0	1	0.71
Nigale Dandebhir	1	1	1.5	1	0.5	1	0.5	0.5	0	0	2	1	0.5	1	0	0.5	0	0	1	0.68
Manakamana	1.5	1	1	1.5	0.5	1.5	0.5	0.5	0	1	2	1.5	1	1	0	1	0.5	0.5	1	0.92
Pirima	0.5	1	1	1	0.5	1	0.5	0	0	0	1	1.5	1	1.5	1	1.5	0.5	0.5	0.5	0.76
Sighadevi	0.5	1	1	1	1	0.5	0.5	0.5	0.5	0	0.5	2	1.5	1	1	0.5	1	1	1	0.84
Bhasme	1	1	0.5	1	1	1.5	0.5	0.5	0	0.5	1.5	2	1	0.5	0.5	0.5	0	0	1.5	0.79
Karkite Batashe	1	0	1	1	1	1	0	0	0.5	0.5	1.5	2	1	1.5	0.5	1	0.5	1	2	0.89
Individual Average	1.0667	0.9	1.2	1.1	0.766	1.3	0.667	0.233	0.1667	0.633	1.633	1.833	0.9	1.2	0.467	0.8	0.433	0.4	0.967	
Total average	1.055						0.425				1.733		0.855			0.65				**0.875**

Similarly, following the legal procedure for harvesting was individually second most implemented activity as users are well known that legal aspects are the core to forest harvesting. Hence, the provisions related to timber harvests draws attention in OP implementation. This is because the DFO officials play a significant role from Chhapan (tree marking) to Kataan (harvesting) and regulate the volume that is to be harvested.

The overall average implementation status of OPs from 15 CFUGs was found to be 0.875 (i.e. below the average/limited category (<1) highlighting implementation status are sub-standard. This illustrates the persistent underperformance of community forests. Activities like protection from fire, soil and water conservation, patrolling, grazing control, bush cutting and expenditure on community development were limited activities performed by CF. Other silvicultural activities like thinning, pruning and singling were the least implemented though these technical forestry prescriptions determines the crop structure and forest composition.

However, some politically influencing parameters/activities like fire line construction was catching the interest of leaders and was implemented better than other activities. The user's preference to fire line construction was driven by the opportunity for road construction. In addition, these decisions were influenced more by elites rather than the OP. Summing up the results, it was found the the trend of implementation to be Utilization> Protection> Expenditure pattern> Miscellaneous> Management and Silviculture, highlighting focused on forest product extraction but neglecting essence of forestry science, i.e. silviculture and management.

Implementation status of OP by forest condition and species composition

Inspecting the management score CF wise, Dhungedhara Thulopakha CF had the highest score of 1.39, and Chilaune Kharka and Nigalae Dandebhir CF were two CF with minimum average management score of 0.68 (Refer to Table 4). Analyzing the species composition, Dhungedhara Thulopakha and Archale CF had *Shorea robusta* as the major tree species. However, community forest of Chilaune Kharka and Nigale Dandebhir were dominated by *Schima wallichi* and *Castonopsis indica* forest (Refer to Table 1). Hence, we can see how the species composition influenced the implementation status. For statistical validation, Kruskal-Wallis H test exhibited significant difference in management score between the different species composition, $\chi2(2) = 8.370$, $p = 0.015$ (Table 5). Mixed forest had the highest rank for management score, which was followed by Shorea forest and the least rank was obtained on *Schima wallichi* and *Castonopsis indica* forest.

Table 5: Statistical test highlighting KW test with species composition as grouping variable

Test Statistics[a,b]	
	Management Score
Chi-square	8.370
df	2
Asymp. Sig.	.015*

a. Kruskal Wallis Test
b. Grouping Variable: Species composition
*Significant at 5% level of significance

However, Kruskal-Wallis H test showed no statistically significant difference in rank for management score between the different forest condition (Good, Fair and Poor) as mentioned on OP, $\chi2(2) = 2.352$, $p = 0.308$. This highlight the average management score is indifference of the forest condition. Directly involved key informant like FECOFUN also revealed that they found higher participation of the CFUGs member in forest management activities in *Shorea* dominated forest than compared to *Schima wallichi* and *Castonopsis indica* forest. Key informant like local leaders also mentioned in contrast with users of *Schima wallichi* and *Castonopsis indica* forest, users of *Shorea* dominated forest participate in wide range of forest and environment related activities. Hence, result demonstrated the involvement of users differ with respect to tree species composition.

Discussion

The study found that the users considered community forest operational plans as highly technical but legitimate documents allowing access to community forestry, users' had poor knowledge regarding the plan, the implementation status was of sub-standard, silvicultural operations prescribed were insufficiently carried out and users are adopting only the forest product harvest and utilization aspects of the plans.

As OPs are in existence for almost two decades now, most of the users were familiar with the presence of the operational plan, however this knowledge was only limited to the preparatory phase that never extended beyond the technical aspect. This finding corroborates with other researches who have assessed user's poor knowledge and understanding of the technical prescriptions in the plan (Baral *et al.*, 2018; Baral *et al.*, 2019; Puri *et al.*, 2020). One of the reasons was the use of expert knowledge in the form of technical prescription. Similarly, the language and knowledge used in the OP was not easy to understand which the users did not bother learning. Puri *et al.* (2021) had a similar finding where study found that the information in the current OP is intensive but not well understood by users. Baral *et al.*(2019) also quoted the plan to be technical. In addition, OPs are drafted by forestry

technician with limited consultation with the local users their by losing interest attributing to its poor understanding (Springate-Baginski *et al.*, 2003). Hence, it can be argued how the current operational plan is filled with technicality that is beyond the capacity of the local users to understand.

Community forest Operational plan, readers were the members of executive committee however it was clear that they do not read to learn, rather they read to only the sections e.g. block for forest management/timber harvesting, annual allowable cut, punishments and membership fees. This aligns with Banjade *et al.* (2006), who demonstrated that the members in executive position had wider perspective of CF information. It was so since most often the member of executive committee participates in forest works and are accountable to DFOs. Regardless the knowledge of what was written inside, the users respected the plan. In addition, the timber is always on hot seat and drew larger attention from the CF executives (Banjade *et al.*, 2011). Despite of limited applicability, the users are accepting the plan and consider it as unavoidable to get legitimate access to the community forestry (Baral *et al.*, 2020). Thus, the user had poor knowledge regarding the plan; they seldom look and read the plan, but acknowledge and respect the plan since they feel the plan to be restrictive document against forest crime, hence having higher moral value towards the plan.

The provisions on management plan are enlisted to assure its full implementation that can contribute to the ecological wellbeing of forest and social and economic up growth of the users. However, result highlighted sub-optimal implementation status and exposed how the plan is of limited use in practical forest management since the plan is often overlooked. Similar is the findings from Toft *et al.*(2015), who stated the community level manager appears knowledgeable about forest conditions and the management plans are not used in practical forest management since most of the activities are done superficially without looking through the plan. This is because the forestry officials take no actions even if the prescriptions are not implemented. Studies like Mathews (2011) highlight communities consider technical management plans as pre-requisite to gain recognized authority over forest rather than relevant support to practical forest management. Thus, the role of management plan in field level implementation is questionable.

Result demonstrated harvesting was major activity performed but silvicultural operations are often overlooked though these are the most technical works. For instance, fuelwood prioritized forest and timber; prioritized forest should strictly follow different set of management regime of thinning, pruning and singling. But, CFUG especially lack the technical expertise and thus these activities are sub implemented. Baral *et al.*(2019) also reported the user's interest in timber harvesting thought they completely ignored the implementation of other silcultural activities. Not only the CFUGs are accountable for poor implementation of silvicultural activities but Division Forest Office have also regulated the thinning, pruning and singling operations. DFO official's shared that the CFUGs were found to harvest good quality trees in the name of thinning. So, to limit the crime in the name of thinning DFO has mandatorily suspended thinning activities. These restricting nature of DFO coupled with incapability of users in performing silvicultural activities resulted the lower implementation of these provisions. Our study is supported by the studies conducted by (Pokharel *et al.*, 2018; Puri *et al.*, 2020; Rutt *et al.*, 2015 ;Toft *et al.*, 2015) where they revealed that the silvicultural activities were not carried out on a regular basis and as per the OP prescription. In addition, our results revealed the extent of implementation was found to be higher in mixed forest followed by *Shorea* dominated forest and lastly the *Schima-Castonopsis* forest since mixed forest provides ample opportunity to diversify the forest product such as timber, fuelwood and fodder along with NTFPs which encouraged the user's motivation in implementation. Higher implementation of management plan in *Shorea* dominated forest was also identified by likes of (Baral *et al.*, 2019) and (Puri *et al.*, 2020). Banjade *et al*. (2006) highlighted the resource richness and availability influence the perspective of information in the community forest user group. Such information might also be the triggering factor for difference in implementation status based on forest composition.

Another main reason behind poor implementation of the plan was due to inadequate technical support and an apparent scarcity of funds as most of the CF were vulnerable in case of financial assets. Springate-Baginski *et al.* (2003) also blamed the restrained capacity of Department of Forests for the post formation support to CFUG as a key constraint to implementation. DFO do not have adequate time and resources to follow up all the CFUGs on meeting the OP prescriptions and thus only concentrate on forest product harvesting. Though OP specified the role of CFUG to take lead in management like IGAs and Capacity building, these activities are mostly done in the initiation of stakeholders like FECOFUN, DFO and local government. Moreover, regarding the funds of CF, most of the fund is given as loan to the users with lower interest rate. So, their expenses on IGAs are minimal. Thus, with poor understanding of the users and sub-optimal management interventions, this study provides sufficient evidence to question the relevance of current form of operational plan.

Conclusions

Users though have poor knowledge regarding the plan mainly due to higher technicality and merely refer the plan during forest management activities but they acknowledge its need and consider the plan as a legitimate document. The implementation status was found sub-standard, implementing only the harvesting activities whereas neglecting the essence of forest management, i.e. silviculture. The economic incentive significantly affects the implementation status illustrating higher implementation in *Shorea* dominated forest. Thus, underutilized from user's perspective and poor implementation status with mainly technical activities missing, this study provides sufficient ground details to question the relevance of current form of Operational plan and recommends the need for reflections for enhancing the relevance of the plan to the users.

References

Acharya, K. P. (2002). Twenty-four years of community forestry in Nepal. *International Forestry Review*, *4* (2), 149–156. https://doi.org/10.1505/IFOR.4.2.149.17447

Aryal, K., Laudari, H. K., & Ojha, H. R. (2020). To what extent is Nepal's community forestry contributing to the sustainable development goals? An institutional interaction perspective. *International Journal of Sustainable Development & World Ecology*, *27* (1), 28–39.

Banjade, M. R., Schanz, H., & Leeuwis, C. (2006). Discourses of information in community forest user groups in Nepal. *International Forestry Review*, *8* (2), 229-240.

Banjade, M. R., Paudel, N. S., Karki, R., Sunam, R., & Paudyal, B. R. (2011). Putting Timber in the Hot Seat: Discourse, policy and contestations over timber in Nepal. In *Forest Action Discussion Paper Series 11: 2*. ForestAction Kathmandu.

Baral, S., Hansen, C. P., & Chhetri, B. B. K. (2020). Forest Management Plans in Nepal's Community Forests: Does One Size Fit All?. Small-scale Forestry, 19(4), 483-504. https:// doi.org/10.1007/s11842-020-09450-9

Baral, S., Meilby, H., & Chhetri, B. B. K. (2019). The Contested Role of Management Plans in Improving Forest Conditions in Nepal's Community Forests. *International Forestry Review*, *21* (1), 37–50. https://doi.org/10.1505/146554819825863799

Baral, S., Meilby, H., Khanal Chettri, B. B., Basnyat, B., Rayamajhi, S., & Awale, S. (2018). Politics of getting the numbers right: Community forest inventory of Nepal. *Forest Policy and Economics*, *91* (June), 19–26. https://doi.org/https://doi.org/10.1016/j.forpol.2017.10.007

Bhandari, P. K. C., Bhusal, P., Paudel, G., Upadhyaya, C. P., & Chhetri, B. B. K. (2019). Importance of community forestry funds for rural development in Nepal. *Resources*, *8* (2), 9–17. https://doi.org/10.3390/resources8020085

Cedamon, E., Nuberg, I., Paudel, G., Basyal, M., Shrestha, K., & Paudel, N. (2017). Rapid silviculture appraisal to characterise stand and determine silviculture priorities of community forests in Nepal. *Small-scale Forestry,* 16 (2), 195-218. https://doi.org/10.1007/ s11842-016-9351-0

Charnley, S., & Poe, M. R. (2007). Community Forestry in Theory and Practice: Where Are We Now? *Annual Review of Anthropology*, *36* (1), 301–336. https://doi.org/10.1146/annurev.anthro.35.081705.123143

DoF. (2014). *Community Forest Development Guideline*. Ministry of Forst and Soil Conservation, Kathmandu, Nepal.

Gilmour, D. (2016). *Forty years of community-based forestry: A review of its extent and effectiveness.*

Gilmour, D. (2018). Silviculture and community forestry: looking backwards, looking forwards. *Banko Janakari*, *4*, 6–14. https://doi.org/10.3126/banko.v27i3.20536

Gurung, A., Bista, R., Karki, R., Shrestha, S., Uprety, D., & Oh, S. E. (2013). Community-based forest management and its role in improving forest conditions in Nepal. *Small-Scale Forestry*, *12* (3), 377–388. https://doi.org/10.1007/s11842-012-9217-z

Kanel, K. R. (2006). Nepal's forest policies on community forestry development: the government perspective. In P. Gyamtsho, B. K. Singh, & G. Rasul (Eds.), *Capitalisation and sharing of experiences on the interaction between forest policies and land use patterns in Asia: llinking people with resources (Volume 2)* (pp. 35–52). International Centre for Integrated Mountain Development (ICIMOD).

Mathews, A. S. (2011). *Instituting Nature Authority Expertise and Power in Mexican Forests*. The MIT Press.

Ostrom, V., & Ostrom, E. (1997). *A theory for institutional analysis of common pool problems*.

Pokharel, B. K., Branney, P., Nurse, M., & Malla, Y. B. (2007). Community forestry: Conserving forests, sustaining livelihoods and strengthening democracy. *Journal of Forest and Livelihood*, *6* (2), 8–19.

Pokharel, B. K., Uprety, D. R., Niraula, R. R., & Pokharel, P. R. (2018). An assessment of the impact of silviculture and forest management regimes to forest cover change in the Churia region during 1992 to 2014. Banko Janakari, 38-44.

Puri, L., Nuberg, I., Ostendorf, B., & Cedamon, E. (2020). Locally Perceived Social and Biophysical Factors Shaping the Effective Implementation of Community Forest Management Operations in Nepal. *Small-scale Forestry*, *19*(3), 291-317. https://doi.org/10.1007/s11842-020-09438-5

Puri, L., Nuberg, I., Ostendorf, B., & Cedamon, E. (2021). Making Operational Plans Relevant to Forest User Groups in the Mid-Hills of Nepal. *International Forestry Review*, *23*(2), 182–196. https://doi.org/10.1505/146554821832952816

Rutt, R. L., Chhetri, B. B. K., Pokharel, R., Rayamajhi, S., Tiwari, K., & Treue, T. (2015). The scientific framing of forestry decentralization in Nepal. *Forest Policy and Economics*, *60*, 50–61. https://doi.org/10.1016/j.forpol.2014.06.005

Springate-Baginski, O., Dev, O. P., Yadav, N. P., & Soussan, J. (2003). Community forest management in the middle hills of Nepal: the changing context. Journal of Forest and livelihood, 3(1), 5–20.

Thoms, C. A. (2008). Community control of resources and the challenge of improving local livelihoods: A critical examination of community forestry in Nepal. *Geoforum*, *39*(3), 1452–1465.

Toft, M. N. J., Adeyeye, Y., & Lund, J. F. (2015). The use and usefulness of inventory-based management planning to forest management: Evidence from community forestry in Nepal. *Forest Policy and Economics*, *60*, 35–49. https://doi.org/10.1016/j.forpol.2015.06.007

Yadav, N., Yadav, K., Yadav, K., & Thapa, N. (2009). Facilitating the transition from passive to active community forest management: lesson from Rapti Zone, Nepal. *Journal of Forest and Livelihood*, *2*(8), 51–66.