Current situation and solutions for community forest management in the Central Highlands of Viet Nam

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Abstract

Community forest management has been officially recognized more clearly in Viet Nam's new Forest Law of 2017, so to promote community forest management, it is necessary to assess the past process and put it into new context to provide appropriate technical and policy recommendations. The fields of community forest management assessment were in Tul and Hang Nam villages, where M'Nong indigenous ethnic minorities live, in the Central Highlands, Viet Nam. Natural forests were allocated to these communities since 2002. Accordingly, Tul community had the support of a rural development project in the period of 2005-2009 to improve its capacity for management of community forests, while the Hang Nam community did not have any significant support from outside. Participatory research methods were applied to evaluate the results and effectiveness of community forest management. The results showed that: 1) The community forest model that was granted forest use rights without any support and advice to implement community forest management (In the case of Hang Nam community), achieved the rates according to the following: organizing 13%, technical 23%, economic 33%, social: 34% and environmental: 71% and on average 35% of all objectives were met; 2) The community forest model that was granted the forest use rights and received the supports for capacity building through a 4-year project (In the case of Tul community), achieved the rates according to the following: organizing 33%; technical 36%, economic 20%, social: 77% and environmental: 77% and on average 50% of all objectives were met. In order to consolidate and develop community forest management, it is necessary to synchronously implement the following solutions: 1) Strengthen the organization and management capacity for the communities; 2) Improve community livelihoods from forest management; 3) There is a need of more appropriate policies for community forest management; 4) Apply measures to rehabilitate degraded forests

Keywords: community forestry, evaluation of forest management, solutions for community forestry

Introduction, scope and main objectives

Community forest management (CFM) has been carried out in Viet Nam in a variety of ways and has been more clearly recognized in a new Forest Law of 2017 (Congress Viet Nam, 2017). CFM has been based on the traditions of ethnic minority communities in the management, the use and sharing of benefits from forests, especially in the Central Highlands, Viet Nam, where indigenous people have been living and closely relating to the forests (Huy, 2005, 2006, 2009b, 2019; Huy, 2007, Wode and Huy, 2009).

CFM policies aim to attract indigenous people to actively participate in long-term forest protection and development, creating livelihoods from forests for ethnic minority communities.

However, to promote CFM in the coming time, it is necessary to assess the past process and put into the new socio-economic and policy context to provide appropriate recommendations and solutions.

After 18 years of implementing forest allocation to ethnic minority communities in the Central Highlands, it is essential to evaluate the effectiveness of this policy. The objectives of this study are: 1) Evaluate the process and effectiveness of some community forest management models to serve as the basis for proposing and recommending policies and techniques for community forest management; and 2) Provide lessons learned on community forest management to develop community forest management guidelines in Viet Nam.

Methodology/approach

1. Study area

This sudy was conducted in 2019 in Tul and Hang Nam villages which belong to Yang Mao commune, Krong Bong district, Dak Lak province in the Central Highlands of Viet Nam. People in the two villages are Ethnic minority group of M Nong.

These two communities were allocated forest land and forest since 2002. In which, Tul village received the support of a Rural Development Project (RDDL) to improve capacity and institutional issues for community forest management during 2005 - 2009; while Hang Nam village did not have any significant support from outside projects on community forest management. Tul community was allocated 1,047 ha and Hang Nam was 1.245 ha of natural forest for 50 years use and management. The main allocated forest type is the evergreen broadleaf forest (EBLF) distributed at elevations of lower 1,000 m, with forest status of low to high degradation levels.

2. Methods

The study incorporated participatory research methods and forest resource assessment techniques to evaluate the effectiveness of CFM and propose solutions (Huy et al., 2013; Huy, 2015).

Numbers of interviewees in Tul village and Hang Nam village respectively were: Total 19- 25 people, including head and deputy of village: 2 - 1 person, head of community forest management board: 1 - 1 person, representatives of households: 16 - 23 people. Numbers of people represented by household economic group in Tul villages and Hang Nam respectively: poor households: 7- 12 households; near-

poor households: 9- 8 households; and households with average living standard: 3- 5 households in which women had 5- 6 people.

Using some techniques and analysis tools to evaluate the CFM as the follows:

- Using Google Earth Pro satellite imagery and FORMIS (2019) data at two times in 2002 and 2019 and applying supervisor method to interpretation community forest changes (Huy, 2009a; Huy, 2013)
- Using the analytical framework CIPP: C: Context; I: Input; P: Process; P: Products to evaluate the effectiveness of community forest management in each studied village (Huy, 2019).
- Using 4-field analysis: Status, opportunities, threats, and expectations for the next 5-10 years for CFM (Sunderlin and Ba, 2005).

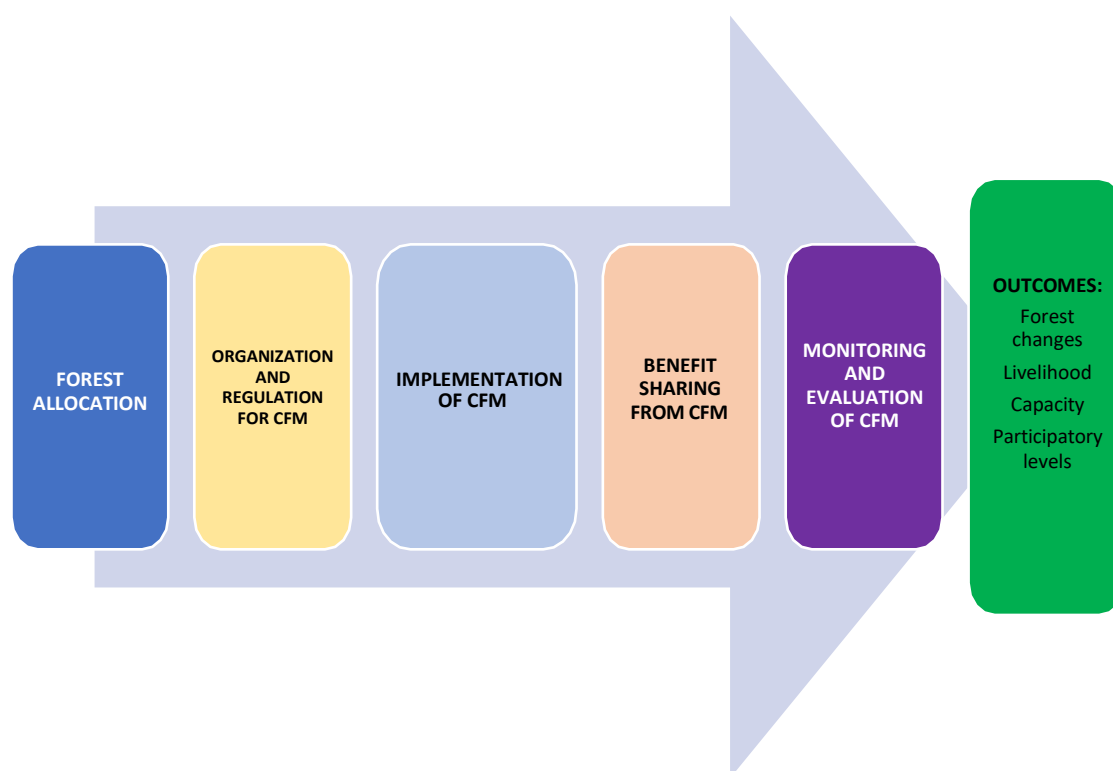CFM evaluation was followed a process and outputs as shown in Fig. 1 (Huy, 2019)

Fig. 1. Diagram of assessment of community forest management

Results

1. Participatory levels of local people in CFM

The participation of each household, individual in CFM is especially important, it shows the concern of community members, the organization for each member to exercise their right to participate, shows fairness and transparency in forest management decisions. This study assessed participation at all steps of community forest management activities, starting with forest land allocation and then with the election of the community forest management board, development and implementation of forest inventory, forest use management plan and participation in forest benefit sharing. The results are shown in Fig. 2.

A comparison of the results of the participation assessments in the two villages showed quite a clear difference. Tul village had an average participation of over 60% (Fig. 2) while that in Hang Nam village was only around 10% (Fig. 2). This difference was due to the RDDL project supported Tul village for 5 years, which facilitated the formation of the community forest management board earlier and organized to involve members of the community to participate in community forest management.
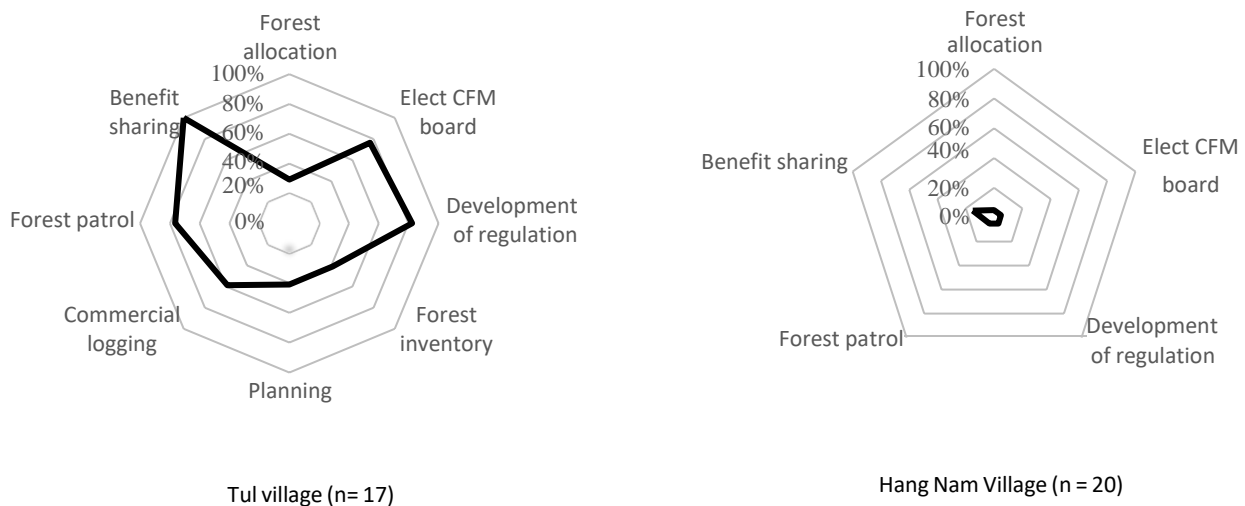

Tul village (n= 17)

Hang Nam Village (n = 20)

Fig. 2. Participation levels (%) of community members in community forest management activities

2. Ability to formulate, implement and monitor a community forest management plan

The ability of a community to formulate, monitor and evaluate the plan is critical in implementing effective community forest management. This should be considered the basis of community forest management. Depending on the resources and actual needs, the community forest management planning can range from simple to detailed and complicated. The evaluation is presented in Table 1.

The results in Table 1 show that CFM capacity was at a very low level of 15% in Hang Nam village, where there is no support, advice, mainly forest protection and monitoring and evaluation. Where there was external support like Tul village for a period 5 years, the community had partly improved capacity in forest management and use, but only reached 38%.

Table 1. Level % of ability for activities of CFM

CFM activities	Tul village (n = 17)	Hang Nam village (n = 20)
Forest inventory	25%	0%
Planning	25%	0%
Commercial logging	14%	0%
Forest patrol	75%	50%
Monitoring, evaluation	50%	25%
Averaged	38%	15%

3. Forest degradation and deforestation in community forestry management for period of 2002 - 2019

One of the main contents of evaluating the effectiveness of community forest management was to examine the possibility of reducing deforestation and forest degradation. The Google Earth Pro satellite image analysis showed the change of forest status from 2002 to 2019 of the community forests in Tul and Hang Nam villages in the Fig. 3 and Fig. 4.
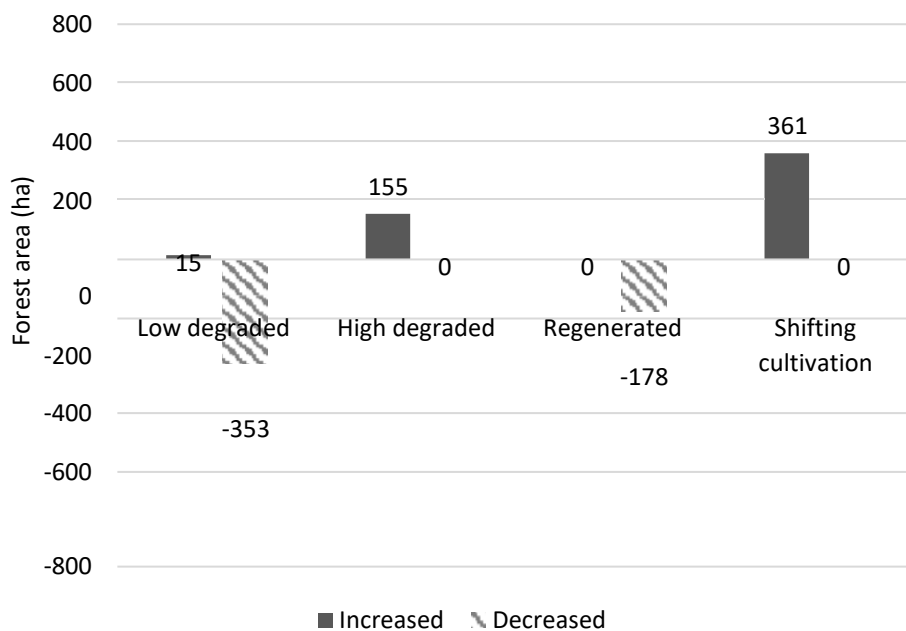

Fig. 3. Forest degradation and deforestation in Tul community for period of 2002 - 2019
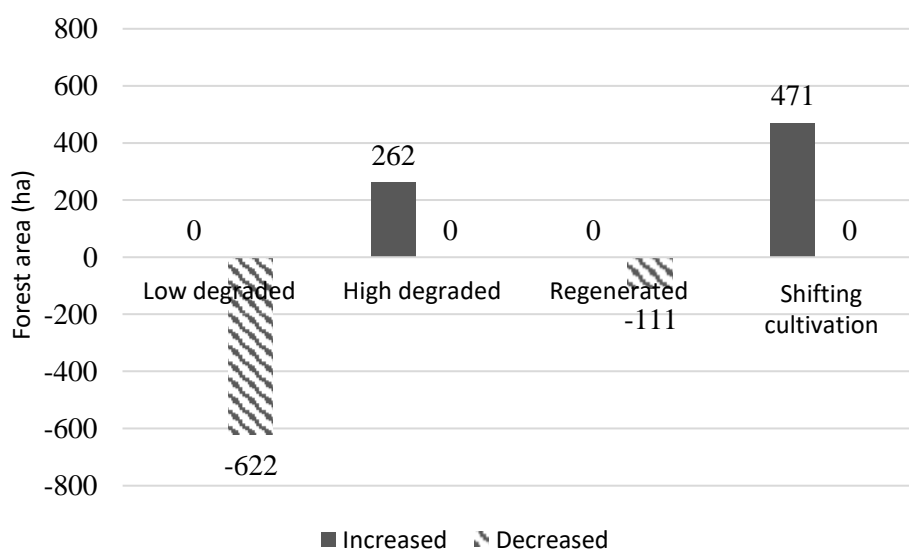

Fig. 4. Forest degradation and deforestation in Hang Nam community for period of 2002 - 2019

Fig. 3 and Fig. 4 indicate that natural forests allocated to two communities have been degraded, some low degraded changed to high degraded forests; meanwhile, the lost forests were low degraded and regenerated forests, which converted to shifting cultivation land.

Regarding the change of the natural forest coverage in Tul village, in 2002 the forested area was 1,047 ha, by 2019 it was 686 ha; thus, the lost forest area was 361 ha, accounting for 34.5 % within 18 years; on average, each year, about 1.7 % of the natural forest area have been lost. At the same time in Hang Nam village, in 2002 the forested area was 1,245 ha, by 2019 it would remain 774 ha; 471 ha of deforestation accounted for 37.8 % within 18 years; on average, each year, about 1.9 % of natural forest was lost.

4. Synthesize the achievement levels of two models of community forest management

Synthesize all evaluation results, score in % (with 100% as the maximum score) of the results achieved the targets. The results are presented in Table 2.

Table 2. Score in % achieved results that compared to the objectives, indicators of two models of community forest management

Objectives	Indicators	Tul village	Hang Nam village
Organization, institution	CFM board	35%	20%
	Develop and implement CFM regulation	30%	5%
Techniques	Planning	20%	0%
	Implementation of the plan	20%	0%
	Forest patrol	76%	75%
	Monitoring and evaluation	29%	15%
Economics	Benefit from forests allocated to CFM	20%	33%
Society	Participatory	63%	7%
	Equality related to gender, position	90%	60%
Forest environment	Forest area	66%	62%
	Forest structure	86%	77%
	Forest product supply capacity	80%	74%

Synthesize assessment results by 1) Institution and organization, 2) Techniques, 3) Economics, 4) Society and 5) Forest Environment presented Fig. 5. Overall assessment results showed that Tul village

achieved its community forest management goals on averaged 50% while that of Hang Nam community was weaker with 35% overall averaged results achieved.
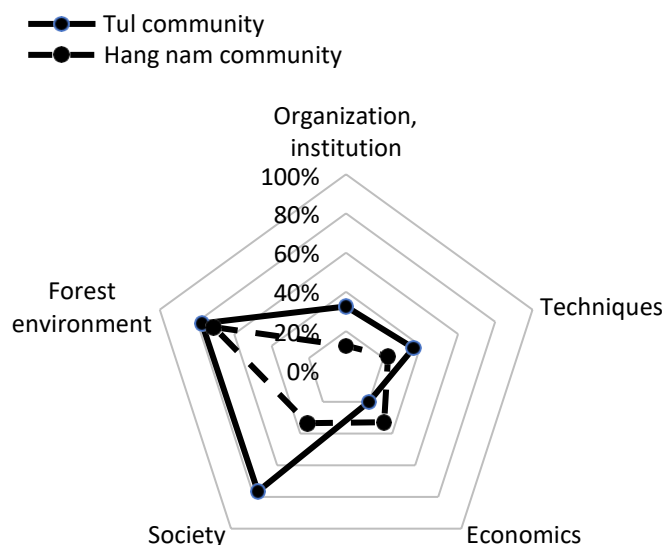

Figure 5. Levels in % achieved in community forest management

5. Main groups of the solutions for strengthening community forest management

Based on analysis of CIPP and 4 fields, the causes of weak community forest management were found, and the solution groups developed for strengthening and developing community forest management as the follows:

i) Strengthen organization and institution for CFM: Strengthen and enhance the capacity of the CFM Board, raise public awareness through the media on the new Law on Forestry and related policies. Promote the process of local people's participation in community forest management; establish community forest management monitoring groups.

ii) Improve community livelihoods from forest management: Supporting and advising communities to formulate, implement, monitor, and evaluate simple appropriate forest management plans; step by step economic development from degraded natural forests by reforestation towards forests that provide multiple products and multiple functions to provide different forest environmental services

iii) Policies needed for developing appropriate ways for community forest management: There is a demand to the State to develop policies, mechanisms for two forms of CFM:

- Traditional Community Forestry: Where there is not much access to the market, the infrastructure is weak, the community depends on the forest and has a tradition of forest management but low management capacity.
- Community Forestry Enterprise: A place with market access, well-developed product value chains, a community that has a tradition of forest management and improved community management capacity (FAO, 2017; Hodgdon et al., 2013; MRLG, 2017).

iv) Rehabilitate degraded forests: Implementation of forest management and use with a plan appropriate to the community and implementation of natural forest restoration measures

Discussion

1. Participation of community members and its importance in CFM

The reality showed that the implementation of land and forest allocation had weak participation and after that there was no consultation or support in the way of organizing the forest management for the community, only applying the administrative management; therefore, the organization of community forest management did not guarantee the transparency and fairness as Hang Nam village case. Thus, in the coming time to strengthen community forest management, at the beginning of forestland allocation, it is necessary to apply a participatory approach, after forest allocation should provide support to improve capacity and form organizations and institutions in the community to ensure the right of community members to participate in the community forest management process.

2. Planning, implementing, monitoring community forest management issues

Planning and monitoring community forest management are essential issues, but weak or not yet established in communities; therefore, there is a need for capacity building support for communities on forest resource assessment to formulate and implement plans that are appropriate to the community's capacity and the needs. In addition, it is necessary to have institutional and legal support in the community forest management planning.

3. Compare the rate of deforestation from community forest management with state forest management in the Central Highlands

For community forest management, every year, the two studied communities have lost 1.7% - 1.9% of their allocated forest area for the past 18 years. Meanwhile, for forests managed by State Forestry Companies (SFC), within 5 years (2010 - 2015), more than 300,000 ha of natural forests were lost out of the total area of production and protection forests in the Central Highlands of 2,710,275 ha (Viet Nam Administration of Forestry, 2018); thus, the rate of deforestation was 11.1% in 5 years and the average annual loss of 2.2% of forest area.

The results of the comparison of deforestation rate showed that CFM had lower rate of deforestation than forest management of SFCs. It is also necessary to clarify that the SFCs have been invested by the state, in building infrastructure and other resources for forest business, to be entitled to exploit forest resources for profit; meanwhile, the communities have had absolutely no such investment, and have not been granted by the government benefit mechanism from forest products for many years (Huy, 2008; Huy, 2009c).

4. Does CFM need outside assistance?

The results of this assessment showed that if it is done only forest land allocation to the community without any advice, guidance on organizational management, technology, and providing benefit mechanisms; the communities of Ethnic minorities in the Central Highlands are completely incapable of implementing effective forest management.

Conclusions/ wider implications of findings

The process of community forest management of two villages Tul and Hang Nam were implemented in the same socio-economic situation, the same policy and legal context, but the different that Tul village had 5 years of support from the project to develop community forest management, while Hang Nam village had no significant input support after forest land allocation. Results of assessing the achievement of the goals of two different community forest management models:

- The community forest model that was granted forest use rights without any support and advice to implement community forest management (In the case of Hang Nam community), achieved the following aspects: organizing 13%; technical 23%, economic 33%, social: 34% and environmental: 71% and on average 35% of the objectives were met.
- The community forest model that was granted forest use rights and supports for capacity building through a 4-year project (In the case of Tul community), achieved the following aspects: organizing 33%; technical 36%, economic 20%, social: 77% and environmental: 77% and on average 50% of the objectives were met.

To consolidate community forest management, it is necessary to synchronously implement the following solutions: i) Strengthen the organization and management capacity for the communities; ii) Improve community livelihoods from forest management; iii) There is a need of more appropriate policies for community forest management; iv) Apply measures to rehabilitate degraded forests.

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