Journal of Agriculture and Technology Management (JATM)
21(1): 24-29 (January-June 2018)

Original article

Identifying Actors and their Interest in the Community Based Forest Management (CBFM) Area of Puntana, Southern Leyte (Philippines)

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ABSTRACT

The Philippines adopted the Community Based Forest Management (CBFM) program as a national strategy to ensure sustainable forest management in the country's forestlands. This research was conducted to explore the main actors and their interests, and the potential synergy in the implementation of the program in Puntana, Southern Leyte, Philippines. Primary and secondary data were collected through semi-structured questionnaires, in-depth interviews with the pre-identified actors and observation in the field based on the actors' response. The study recorded diverse interests among the nine actors. In addition, the model displayed diverse interests that actors have in conflict. Nevertheless, potential synergies revealed that despite different interests, the main actors could still work together in line with the principles of sustainable forest management. This information is useful for carrying out future activities primarily in the decision-making process of attaining the overall objective of the CBMF program in the country.

KEYWORDS: *actors, conflict, forest management, forest policy, interest*

1 INTRODUCTION

Sustainable forest management is increasingly important in the context of global forest policy arena (Burns and Giessen, 2014). International forest principles were formulated during the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 (Holvoet and Muys, 2004). Due to the widespread loss of forest cover on a global and regional scale, there is a growing interest in forest conservation and management (Tapia-Armijos *et al.*, 2015). In addition, deforestation and forest fragmentation are significant components to global change. These are both contributing to the rapid loss of forest area, which has substantial implications for ecosystem functioning and biodiversity conservation.

In the Philippines, forest degradation and deforestation are widespread (Lasco *et al.*, 2001; Kummer, 1993). Logging and agricultural expansion reported as the two primary causes of deforestation in the country (Kummer, 1993; FAO, 2010; Gregorio *et al.*, 2015). Since then, the government realized the general decrease of forest cover early in the 1970s (ESSC, 2010). The different policies were crafted to address the problem of forest losses. In 1995, the Executive Order (EO) 263 also known as the Community-Based Forest Management (CBFM) was implemented and adopted as the national strategy to ensure sustainable forest management and social justice in the country's forest lands (Lasco *et al.*, 2013; Lasco and Pulhin, 2006). The program recognizes the capacity of upland dwellers to develop and manage the forest resources in a sustainable manner through the issuance of a 25-year land tenure instrument renewable for another 25 years. Recently, a study conducted by Pulhin and Ramirez (2016), in the community-based and small-scale forestry investigated in Visayas and Mindanao regions showed the CBFM, and smallholder forestry has the potential to meet the country's wood demand and will contribute to poverty reduction goal.

In the Visayas region, the Department of Environment and Natural Resources (DENR) and the People's Organization (PO) of Barangay Puntana Livelihood Project for Environmental and Developmental Association (PELPEDA) signed a CBFM agreement. PELPEDA was awarded 250 hectares of CBFM area where they are allowed to harvest from the plantation and the second growth forest subject to existing regulation on timber harvesting. Apart from this, the PO is responsible for the protection and management of the forest according to the context of sustained –yield forest management. The members must also use a portion of the income derived from harvesting to protect, renew and improve the forest resources, and to engage in alternative sources of livelihood (i.e. agroforestry).

The abovementioned examples show the Philippines over the past years developed forest and environmental policy, identifying specific problems, goals, instruments and naming responsible actors for implementation of the program. According to Schusser (2016), the driving forces behind the programs are actors who are powerful within the hierarchies, thus, it is essential to know who are the involved actors, their

*corresponding author: rodrigoruffy@gmail.com
Received: 14 February 2018; Accepted: 10 March 2018
p-ISSN: 2599-4875 e-ISSN: 2599-4980

power and interests. Further, based on the study of Schusser (2015), interpreted that powerful actors have a significant influence on the outcomes of the community forestry. However, no systematic studies exist on the specific actors and their interest in the success of the CBFM program in Puntana, Southern Leyte. This research was carried out to have a realistic overview of the multiple-use of the forest. Furthermore, this research aimed to identify the actors and categorize the various interests among them and to explore the conflict between the area of interest and synergy among them.

2 MATERIALS AND METHODS

The Study Area

The study was conducted in PELPEDA CBFM area located at Brgy. Puntana, Silago, Southern Leyte (10^0 35' 59" N, 125^0 05' 03" E) covering a total land area of 250 hectares (Fig. 1). The upland community is surrounded by mountain, although, patches of fragmented forest are very distinct, due to the impact of logging in the community. The forest remains one of the most valuable resources for the people. The population size estimated to 373 individuals out of the 89 households and classified into different ethnic groups where the majority is Cebuano. Seventy-three percent (73%) of the population is literate, having at least a primary education. The household incomes derived mainly from agriculture activities, forestry, off-farm, and a few remittances from abroad. The ten council members headed by the captain are receiving directives from the local government unit (LGU).

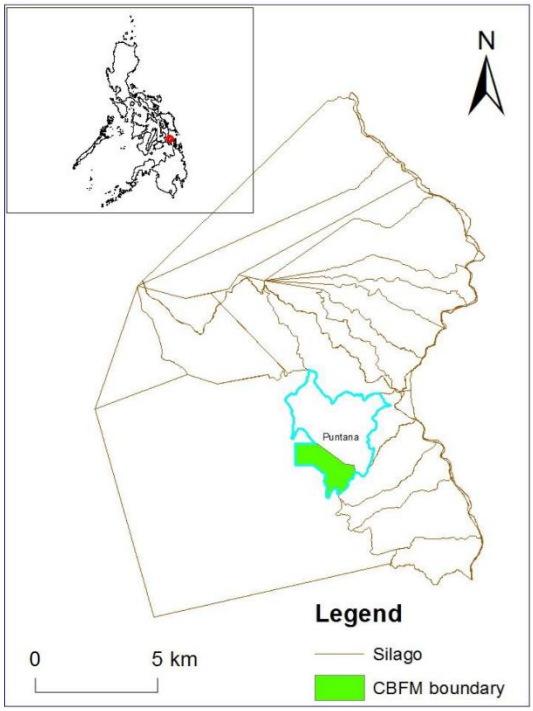

Figure 1. Map of the Brgy. Puntana, Silagao, Southern Leyte and the CBFMA area

Data Collection

Primary and secondary data

There were various research techniques employed to gain, interpret and analyze the information obtained from the field. Primary data collected through in-depth interviews using semi-structured and open-ended questionnaires from several stakeholders (Creswell, 2003). To analyze the role of stakeholders of the CBFM in Puntana, we used the power, interest, and outcome factors as described by Schusser (2013). The stakeholders come from different designations that have direct involvement of the PELPEDA organization. In addition, interviews were carried out with the key informants who were knowledgeable of the CBFM program. The interview was in-depth and more specific to the research topic, and it was conducted in the local dialect. A snowball sampling method was adapted to identify some (at least two) key persons who were actively involved in the program (Neumann, 2005). Further, a review of secondary data for this research was in-depth and geared to cover a broad spectrum and to suit the context of the research. This method help improved the understanding of the problem. Furthermore, the literature was acquired from textbooks, journals, pamphlets, and national and organizational official document.

Table 1. List of key informants and representatives interviewed

Interview No.	Representative/ Affiliation	Number of key informants interviewed
1	Dean and Department heads	3
2	Village Council	5
3	Council of PELPEDA	7
4	DENR	2
5	Farmers	8
6	Loggers	3
7	Hunters	3
8	Traders	1
9	Local Government Units	5

Field observation and Field observation was performed to determine the real scenario in the area. It involved detailed observation of the behavior and talks, i.e. watching and recording what people say and do that were involved in forest-related activities in Puntana. The strategy was conducted to understand the environment and its factors that influenced the management of the forest. Observing the stakeholders in their natural setting and the avoidance of being evident about observing them, as this would have affected the situation and the data collected. The objective of this method was to acquire confirmation of what was said during the interview. A matrix adapted from Krott *et al.* (2014) was used to explore the actors and their interests (Fig. 2). In addition, this matrix identified the conflicts associated with the interest as well as the synergies. The results of this matrix gave the real situation on the ground, as such, it was the basis on which the research was built.

p-ISSN: 2599-4875 e-ISSN: 2599-4980

3 RESULTS AND DISCUSSION

Actors and their interests

Our analysis identified nine actors in the management of forest (Fig. 2; Table 2). The first actor that we identified is the CBFM group. This actor has multiple interests, summarized into farming, soil and water conservation, and fuelwood collection. On the other hand, the second main actor is the DENR, which is the sole government institution responsible for looking after the CBFM area. DENR is responsible for the overall implementation of the CBFM program including the monitoring and evaluation activities. As expected, being the primary agency of the Philippines responsible for the management of natural resources in the country, the DENR has multiple interests such as reforestation, timber harvesting, non-timber forest products; research and biodiversity conservation. The third main actor is the Visayas state university (VSU). The institution is the premier university of the Visayas region in the Philippines providing technical information to CBFM group. The actor has varied interests such as reforestation, rainforestation farming, research, and biodiversity conservation. The important actors identified in our study were comparable to the study conducted in Indonesia such as the farmer group, the state, the university and the head of the village (Kustanti *et al.*, 2014). In addition, they noted that management of the forest was affected by the variety of interest. Further, other actors such as the loggers, villagers, the Department of Agriculture and the local government units also showed multiple interests in the forest.

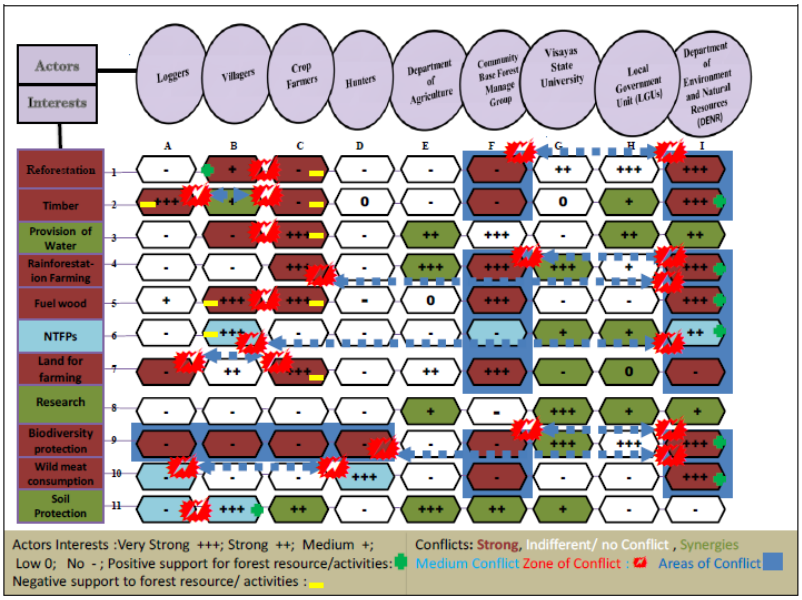

Figure 2. Matrix mapping actors, interests, and synergies in the Puntana Community - Based Forest Management area

Table 1. Summary of actors and their multiple interests in the forest.

Actors	Multiple Interests
Loggers	Timber harvesting; fuelwood
Villagers	reforestation; timber harvesting; fuelwood; Non-Timber Forest Products (NTFPs); farming; soil protection
Crop Farmers	Provision for water; rainforestation farming; fuelwood; farming; soil protection
Hunters	Wild meat consumption;
Department of Agriculture	Provision for water; rainforestation farming; farming; research; soil protection
CBFM Group	Provision for water; rainforestation farming; fuelwood; farming; soil protection
Visayas State University	Reforestation; rainforestation farming; research; biodiversity conservation; soil protection
Local Government Units	Reforestation; timber harvesting; provision of water; rainforestation farming; NTFPs; research; biodiversity conservation
Department of Environment and Natural Resources	Reforestation; timber harvesting' provision of water; rainforestation farming; fuelwood; NTFPs; farming; research; biodiversity conservation

Conflict Analysis and Synergies

The matrix displayed multiple interests that actors have in conflict. For instance, crop farmers have in conflict with the DENR because the former prefers farming while the latter prefers to reforestation activities (Table 3). For farmers' view, farming is more convenient because it can provide immediate income rather than to increase forest cover and promote biodiversity conservation. The DENR is interested in biodiversity conservation; however, for the CBFM it is not their priority. The CBFM group is allowed to harvest and utilize the forest resources, but they also have a mandate to protect and manage the forest in accordance with the principles of sustainable forest management. Thus, the CBFM group fails to execute their duties and responsibilities, as stipulated in the

p-ISSN: 2599-4875 e-ISSN: 2599-4980

CBFM agreement to promote sustainable management. This example shows that actors have conflicting interests that may hamper the successful implementation of the program. Other actors that may have in conflict are the crop farmers and the loggers. The crop farmers are interested in farming while the loggers are interested in timber.

Despite the diverse interests among the actors, this research showed that the identified actors might still work together and cooperate in order to implement the program successfully. The matrix displayed that interests such as the provision of water, NTFPs, soil protection and research have attracted synergizes among most of the main actors. This information will give insights that these interests are also essential for sustainable development and beneficial for the forest users.

Table 3. Summary of actors, interests and conflict in the community-based forest management of Puntana.

Actor	Interest	Conflict
Villagers and Crop farmers;	Rainforestation	The villagers and the crop farmers will have conflicting interests, since; the villagers receive money from planting trees while the crop farmers were not in favor of trees.
Loggers and Crop farmers	Timber	Loggers will tend to keep standing trees, while, crop farmers clear the forest for farming.
Villagers and Crop farmers	Provision of water	Villagers interested in water for domestic use while crop farmers want water for their crops.
Crop farmers and Villagers	Fuelwood	Crop farmers and villagers will have conflicting interest since both want fuelwood for domestic use.
Villagers and DENR	NTFPs	Villagers want to collect and harvest NTFP while DENR has a restriction in NTFP collection.
DENR and the rest of the forest user	Biodiversity protection	The DENR will have in conflict with all the forest users.
Loggers and Hunters	Wild meat consumption	Medium conflict with loggers who cut the trees and hunters who want wildlife.
Loggers and Villagers	Soil protection	Loggers will tend to destroy trees and loosening the soil. villagers want soil stable to prevent landslides'

Conflict resolution through policy instruments

Our research showed that every actor have multiple interests, which are publicly disclosed, and some are not. These interests may have to be revealed by any policy analysis to evoke solutions to conflicts. However, if these interests are not recognized from the inception of the CBFM scheme, adverse outcomes may reveal through forged activities that defeat the purpose of the CBFM goal. Pulhin and Ramirez (2016) describe the CBFM area as the place where communities are in the habit of forming viable activities. Conflict will occur in the CBFM areas, with different land uses, since the interests of the actors are very diverse. Krott (2005) has confirmed this statement by stating, "Where there is diverse interest in an area of limited resources, conflict will occur". Though conflict, in this case, seems inevitable, forest policy science provides workable solutions to these conflicts. Identifying the possible conflict between the stakeholders, it is important to pay attention to the interests of actors involved since interests are the driving force for conflict resolution (Krott, 2005). Our results showed that within the CBFM area, crop farming is the most crucial activity based on its enormous interests. Crop farming is the primary livelihood activity of the community. In addition, the community is dependent on the forest for their survival such as forest harvest and cash-based income. It reveals possible conflict between resource users and the regulatory bodies. Conflict of interests is bound to be unless there is regulatory control of farming activities. The CBFM group shares similar interests as with the crop farmers. This situation would result in a single land use system, defeating all other objectives of the CBFM program.

Although place to deal with forest-related conflict, its effect influenced by two different elements of the social bargaining process, namely information and power (Krott *et al.*, 2014; Burns and Giessen, 2014). Information allows stakeholders to have a better understanding of the real situation, as such to see them in it. They can decide a suitable method of utilizing the forest, which interest them, as well as being able to connect with other interest, i.e. crop farming and rainforestation. Power will complement information since it will act as the element implementing limitations to use the forest resources. With this, forestland use planning (FLUP) is a practical solution to the conflicting interests of the resource-users of the CBFM area. A study conducted by Bianchessi and Lumbab (2012) in Silago, Southern Leyte pointed out that land use and resource utilization is beneficial in response to rising population and limited resources. In addition, a study conducted in Indonesia, the same insights proposed by Kustanti *et al.* (2014) to have an integrated management in the mangrove forest because of the diverse actors and their interests. This information can be linked to the forest land-use planning where stakeholders can decide and agree on the land use type. Thus, community participation is vital to secure the management of the forest. Purnomo *et al.* (2013) reported that community existences need to be taken because their activities are directly influencing the forest. Empowering the local villagers by awareness campaigns, problem solving, negotiation, and active decision making, would result in the information needed and positive use of power, formally or

p-ISSN: 2599-4875 e-ISSN: 2599-4980

informally, for the execution of effective social bargaining (Krott, 2005)

4 CONCLUSION

The study identified nine essential actors in the implementation of the CBFM program in Brgy. Puntana. This research revealed that every actor has its interest whether it is publicly disclosed or hidden interests. Interests that enumerated among the nine actors were reforestation, timber, provision of water, rainforestation farming, fuelwood, NTFPs, farming, research, biodiversity conservation, wild meat consumption, and soil conservation. Due to multiple-use of the forest and functions, often actors end up in conflict. Nevertheless, analysis of the potential synergies revealed that despite different interests and arising conflict, the main actors could still work together for the successful implementation of the program. This information is useful for carrying out future activities primarily in the decision-making process that may influence the management of the CBFM program.

ACKNOWLEDGMENT

The authors would like to thank the Deutscher Akademischer Austauschdienst (DAAD) and the University of Göttingen - Georg-August-Universität Göttingen for making this research possible.

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p-ISSN: 2599-4875 e-ISSN: 2599-4980