

Evaluation of Community-Based Forest Management Project in Ma-asin, Iloilo, Philippines

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Abstract- The study on Community-Based Forest Management (CBFM) was conducted in Maasin, Iloilo, Philippines. The aim of the study was to assess the status of Maasin CBFM. The objectives of the research are: (1) to determine the socio-demographic characteristics of the beneficiaries of Maasin CBFM; (2) to assess the inputs, interventions, approaches, and strategies undertaken in the said CBFM; (3) to evaluate the CBFM outputs and outcomes; and to find out the status of Maasin CBFM. The design of the study was descriptive. There were 335 participants as the population and the respondents of the survey were 77. They were the sources of primary data. Secondary data of the study were gathered from Department of Environment & Natural Resources (DENR) which provided the characterization of Maasin CBFM in terms of bio-physical, socioeconomic, and infrastructure. Aside from the respondents of the study, there were also key informants for the triangulation method of research. The instruments for the respondents and key informants were subjected to validation and that of the respondents was further pretested for reliability. The findings of the study were: the training in decision making, farming systems, erosion control, values, post-harvest operations, marketing of produce, biodiversity conservation, management, forest conservation, organic farming, soil and water conservation were practiced by the beneficiaries; the inputs for CBFM were comprehensive to include—crop seeds, tree and fruit tree seedlings, farm-to-market roads, fertilizers and marketing assistance, and technical assistance; generally, outputs were sound except for political intervention and policies and farm practices of the beneficiaries which need further improvement; and in general, the status of CBFM is “good” but needs to be improved to the “very good” level.

Index Terms- CBFM, status, characterization, outputs, inputs, outcome, intervention, practices

I. INTRODUCTION

“People first and sustainable forestry will follow” sums up the concept of CBFM. The government of the Philippine Republic believes that by fulfilling the needs of local communities, they themselves will join hands in protecting and managing the very source of their livelihood. The evolution of community forestry was for improving the forest resources management and focusing on issues in the environment where centralized management failed (Pandit & Bevilacqua, 2011).

The CBFM goals include promotion of: (a) sustainable management of forest resources; (b) social justice and improved well-being of local communities; and (c) strong partnership of

local communities with the DENR. In spite of paramount progress, continual improvement in the cooperation of local as well as national governments with forest communities points to the key point of better forest management by communities. A multiplicity of futures scenarios have been propounded to help in the decision process for the good of the environment (Evans et al., 2008).

A study performed in the Amazon of Brazil showed that there are a number of challenges that should be confronted for development of a strategy for sustainable management of forestry. These challenges are in Table 1. The table depicts the impact of challenges in management on other obstacles (Hajjar et al., 2011).

Table 1. Challenges in management of forests (Hajjar et al., 2011)

Ownership of land	Rights of the beneficiaries to use the land must be ensured so that he is motivated to protect and manage it.
Organizational capacity	People’s organization (PO) must be trained in order to make sound decision for their forestry community. This activity of the government must be effective.
Capital	The help of NGOs (Non-Government Organizations) must be sought to provide capital for forest communities. Collaboration of DENR and local governments in this must be effective.
Technical knowledge	Lawful management of the forest must be ensured and the people in the CBFM community should be trained in technical knowledge not presumed.
Legal management	The DENR approval of work plan for the forest community should be well performed. Thorough study of the plan must be done before approval and the people trained.
Illegal loggers	Once the trees are grown up, the protection of the forest must be ensured to be free from illegal loggers. Again, training of the community on this must be effective.
Easy market access	Market access of the forest community must be fast and easy as ensured in the program.
Infrastructure for the community	Infrastructure for the area are needed for efficient forest management.
Skills in management	Skills in management must be possessed by the community as needing training from government authorities. The science of

	forestry has many elements and managerial sciences are one (Young, 1982).
Economic returns on activities	Activities in the farm must ensure economic returns to the beneficiaries so their improvement in socioeconomic aspects will follow.

The features of CBFM are security of tenure and social equity. For a conservation program within a Community forest to succeed, involvement of the community is imperative. Security of tenure on the land is a must. Policies of governments in the CBFM have failed and the social equity must be governments' concern (Nagendra, 2007).

In management of the forest in CBFM, the people are the ones concerned. Good timber in terms of quality and for soil and water conservation must be introduced (Barnard & Foley, 1984). There are many produces of the forest that are useful to the forest communities at the same time conserve soil and water. Pulp production for income is common in the Philippines (Hyman, 1983).

Agroforestry in the CBFM lands are important source of livelihood and food needed in the homes and for sale. The practice of agroforestry has been acceptable to many people worldwide (Kristjanson et al., 2012). Food and forest trees in the land are raised simultaneously. While spaces within rows of trees are provided for crops or for grazing, agroforestry makes sense and gives economic returns to the farmers. The use of leguminous fast growing trees for fertilizer purposes is as beneficial as synthetic fertilizer in agroforestry (Akinnifesi et al., 2006).

Agroforestry in the slopes have contribution to ecology. The advantage of biodiversity is one. Socioeconomic improvement of the farmer is another. Ecology in the land is balanced because it is conserved and preserved. The totality of the land is used (Patish, 2008).

CBFM as a concept of social forestry aims to alleviate the people from poverty and preservation of the natural resources in the forest community. Whether success in CBFM particularly CBFM in Maasin, Iloilo, Philippines has been achieved is the goal of the study.

II. METHODOLOGY

The venue of the study was in Maasin CBFM, Maasin, Iloilo, Philippines. The respondents of the research consisted of 77 CBFM beneficiaries who were asked to answer a researcher-made instrument. The design of the study was descriptive which, according to Ardales (2008), aims to determine the condition at the time of the study and determine the causes of particular phenomena. The selection of respondents was with the use of simple random sampling. The research instrument was validated by a panel of jurors consisting of five members. The reliability of the instrument was determined using 15 beneficiaries from Maasin CBFM not included in the respondent-proper. Secondary data for the study were gathered from DENR. The gathering of data was performed by the researcher himself. All statistical analyses were performed using the SPSS (Statistical Package for Social Sciences) computer software Version 17.

III. RESULTS AND DISCUSSION

Overall positive outputs and outcomes of the CBFM project have incited the significant efforts of DENR in changing the community member and the association which benefited from the project in Maasin watershed. There were outward important significant improvements in the CBFM projects namely the five components this are the reforestation, agro forestry, bamboo plantation, rattan plantation and rehabilitation of riverbanks that was established. Likewise livelihood opportunities were also given to the community member beneficiaries. There were infrastructures development established in the like bunkhouses, look-out tower, access trail, nurseries and fire lines that were helpful to the community. The beneficiaries were trained technically and assisted in marketing their goods and the availment of different livelihood projects; thus beneficiary changes on the management practices, crop production landholding capacity and increase in income of the community member beneficiaries.

The CBFM project provided technical and marketing assistance to member-beneficiaries. Forty five respondents or 58.44 percent received technical assistance from local LGUs, provincial government, Department of Environment and Natural Resources, Metro Iloilo Water District, and NGOs in Maasin, Iloilo before CBFM project implementation. Likewise, 30 respondents or 38.96 percent received marketing assistance from said agencies. It also revealed that the number of respondents who received technical and marketing assistance increased from 45 to 72 and 30 to 56 respondents, respectively. The data showed that with the CBFM, technical and marketing assistance increased with 93.51 percent and 72.73 percent of the respondent receiving the assistance.

Before the implementation of the CBFM project in Maasin, Iloilo livelihood opportunities for the community members were present. Majority of the community members reported that among the livelihood opportunities offered by LGUs, NGAs, and NGOs farming fruit trees (20.78%), farming crops (19.48 % and raising livestock (12.99%) were availed of. Moreover, sawali production and trading (89.61%) and hog fattening (19.48%) were also availed of by the community members before the CBFM. Likewise, raising poultry, rice trading, seedling production, PUB, truck and motorcycle loan, and Hog feeds "buy and sell" were also availed of by community members. Interestingly, current results revealed that 69 respondents or 89.61 percent reported to have availed themselves of sawali production and trading while farming fruit trees was availed of by 88.31 percent of respondents. The CBFM project also provided livelihood opportunities in farming crops to 76.62 percent of respondents with an increase of 44 respondents from 15 before the CBFM implementation in Maasin, Iloilo. Also, community members who availed of seedling production from the CBFM increased from 6 members to 48 members with a difference of 42 respondents.

Generally, livelihood opportunities availed of by community members from the CBFM implementation was increased. This implies that the CBFM project attained its objective of uplifting the economic well-being of the community members by providing livelihood opportunities for every member-beneficiary.

The positive change in technologies is indicative of community member beneficiaries respondents acknowledgement of the benefits and advantages of the adoption of those technologies. Before the community-based forest management was implemented in the area, gabion (51.95%) followed by terracing (45.45%), Agroforestry (20.78%), SALT 2 (16.88%), SALT 1 (12.99%) and SALT 3 (10.01%) these technologies adopted thru introduced by Department of Environment Natural Resources, other Government Organizations, and Non-Government Organizations involved in the area before CBFM. During the CBFM thru trainings and seminars, informal education conducted there was a changed and increased in adoption of technologies, highest was obtained by SALT 1, soil conservation and food production (29.2%), followed by terracing conservation of soil (88.3%), SALT 3, sustainable agro forest land technology (76.6%), agroforestry, diverse crops and trees (75.3%), SALT 2 agriculture and forestry (58.4%).

Overall the change in crop grown by the community member beneficiaries of the CBFM project from the original crops grown in the area rice (58.44%), followed by own (57.59%), cacao (44.16%), bamboo (38.96%), coffee (37.66%), coconut 31.17%), abaca (25.97%) rattan (23.38%), and achuete (20.78%), respectively were changed to the following: rattan (92.21%), coffee (83.12%), cacao (77.92%), corn (75.32%), corn (75.32%), rice (64.94%), coconut (62.43%), abaca (59.74%), and achuete (51.95%), respectively. The change in crops grown in the area was triggered by the technologies being adopted/introduced in the area and economic benefits gained from the said crops.

Moreover, the change of land holding from 1.75 hectares average land holding before the project, increased to 5.78 hectares average land holding at the implementation of the CBFM. The highest percentage change was in business income (49.48%), followed by farm income (21.05%), employment income (19.59%) and non-farm income (9.88%).

The implementation of CBFM project was not without problems as the community member beneficiaries were challenged by the lack of commitment on the general objectives (76.62%), lack of transparency on the records especially financial matters resulting to doubts in project implementation (59.74%), lack of genuine commitments to improve the lives of the members (67.58%), lack of understanding on the whole functions and roles of watershed on the lives of human being (53.25%), mismanagement of the records resulting to uncooperativeness of the records resulting to uncooperativeness of the members (32.47%), and the "wait and see" behavior of the Politics/Policies.

There is a theory on the social production of scale and multiple social and natural science methods to interrogate village-scale community-based forest management (CBFM) in southern Malawi, focusing on boundary demarcation, rule formulation and scaling, and dynamics of external facilitation. Examination of political agendas of those who pursued, gained from, or protested particular scalar CBFM arrangements uncovered otherwise hidden scalar politics, whose outcomes impeded more than they advanced CBFM goals. He argued that clarifying the scalar politics and configuration of forest governance arrangements can lead to a more nuanced understanding of m CBFM challenges and create new

opportunities for addressing them Containerized, single-level CBFM institutions mismatched interacting social, ecological and institutional scalar configurations and confounded CBFM. Unequal international-donor/national and national/community scalar relations were as important as intra-community dynamics in explaining performance of CBFM. They constructed CBFM on a shaky foundation that put institutional and personal agendas and short-term goals over long-term socioecological sustainability. The politics of rescaling forest rules from village to (broader) Traditional Authority level alienated them from communities and undermined enforcement. Diverse motivations behind a scale-related strategy that separated usufruct from territorial rights in allocating forests mostly undermined socioecological CBFM goals. While scale is not the key or only explanation of CBFM performance, negotiated scaling offered a proactive way to anticipate scale-related conflicts in particular settings, and for communities to create institutional forms that minimize such conflicts at local or intermediate scale levels. Findings support strong,. Well-resourced states and caution against donor-driven quick fixes (Hula, 2014). The politics may influence the policies which the associations in CBFMs are framing. They may be effected by donor politicians or agencies on the latter's likes and dislikes. Despite this fact, if the donors are sincere in helping the association, no discrepancies will arise (Hula, 2014).

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions were arrived at: The training in decision making, farming systems, erosion control, values, post-harvest operations and marketing of produce, biodiversity conservation, community-based forest management, forest conservation, organic farming, soil conservation and water conservation were generally useful to the participants. Generally, the inputs to the CBFM are comprehensive. They received crop seeds, tree and fruit tree seedlings, farm-to-market roads, fertilizers and marketing assistance, technical assistance and were provided with livelihood opportunities which needed to increase income. In general, the CBFM outputs are very sound, although some aspects such as politics, policies and farm practices need improvement. The status of Maasin CBFM is good but this needs to be improved to the very good level.

Based on the results of the study, the following recommendations are put forward:

Continuous training on forest management must be conducted so that the beneficiaries are educated on the importance of watershed to ensure conservation and protection of the Maasin watershed. Technical assistance must be intensified for the program beneficiaries to ensure the sustainability of managing the Maasin watershed. Strict implementation of the local ordinances must be done and must be followed. Discipline and moral values of the beneficiaries must be strengthened as they are the stewards of the natural resources. They must learn to love, care and be committed to protect the Maasin watershed.

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