Evaluating Capacity Development for Participatory Forestry in Sal Forests in Bangladesh Based on '4Rs' Stakeholder Analysis

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Abstract

Participatory forest management (PFM) in Bangladesh has become the dominant strategy in the country's forestry sector. The main goal of PFM is to enhance the capacity of both state and civil society stakeholders to manage forests in a sustainable manner. This study aims at evaluating the capacity development of key stakeholders using '4Rs' stakeholder analysis. The data for this study were collected through focus group discussions with local stakeholders, individual interviews with forest department (FD) staff and sample survey on participating farmers. Information derived from focus group and individual interviews were analysed using conceptual content analysis and sample survey data were analysed using statistical analysis. The conceptual content analysis suggests the followings: among the stakeholders, national government, concerned civil servants, concerned FD staff and funding agency are the most important and most influential stakeholders; although the local FD staff and participating farmers are the most important and experienced stakeholders, they can not participate in decision-making process and thus are less influential stakeholders; FD usually have ownership and revenue collection rights over the PFM project; participating farmers have only usufruct rights on forest resources and they are responsible for protecting and managing the participatory managed forests; those stakeholders with much responsibilities and rights benefit less. The relationships between the project implementers and the local stakeholders are poor. Statistical analysis suggests the followings: about 46% of the participating farmers did not received any benefits from the forests; about 30% of the participating farmers who received benefits were not satisfied with benefits; about 85% of participating farmers did not attend any decision-making process; about 19% of participating farmers did not agree with the strategy of PFM; about 28% of the participating farmers were unable to practice PFM by their acquired capacity. Overall analyses suggest that capacity of stakeholders for sustainable PFM did not develop up to the level desired by the project proposal.

Key Words: Capacity development; participatory forest management; stakeholders; 4Rs; Sal forests; Bangladesh.

1.0 Introduction

1.1 Development of participatory forest management in Bangladesh

There is a growing consensus among key forest decision-makers in Bangladesh that traditional forestry needs to make the transition to a more sustainable approach that involves an iterative process of continuous improvement. In this regard, the government has attached the highest priority to its participatory forest management (PFM) program, which was launched with the goal of involving local communities in the management of forest resources. It has become the dominant strategy in the country's forestry sector (Task Force Report, 1987; GOB, 1992; FMP, 1992; Khan and Begum, 1997) and accordingly, during the Rio Earth Summit (UNCED) in 1992, Bangladesh joined the rest of the world in adopting Agenda 21, a wide-ranging blueprint for achieving sustainable development worldwide.

PFM activities began in Bangladesh in 1980 with the initiation of a forestry extension program under a Forest Department (FD) project with domestic funding. The first formal PFM program was initiated in the northwestern districts of Bangladesh in 1981/82 under the Community Forestry Program with assistance from an Asian Development Bank (ADB) loan and United Nations Development Program (UNDP) grant. After completion of this program in 1987 and as a follow up, the FD initiated another ADB assisted program throughout the Sal forests as part of the Thana Afforestation and Nursery Development Project (1988-94). Agroforestry and woodlot models were developed as part of this project and involved allocation of 1~1.2 ha of encroached Sal forestland to each participating farmer. This program proposed to establish 16,188 ha of woodlot and 3,238 ha of agroforestry plantations during the designated period (1988-94); it succeeded in raising a total of 16,840 ha of woodlot and 3,061 ha of agroforestry plantations (Chowdhury, 1994). The specific objectives of the participatory forestry program were: (i) to protect, manage and develop forests in a sustainable way by involving local communities; (ii) to increase forest resources in order to improve the local environment; (iii) to contribute to alleviating rural poverty by involving local poor and weaker sections of the society in forest management through income-generating activities; and (iv) to strengthen the institutional capacity of the FD. After completion of this program, a Forestry Sector Program for 1997-2004 was initiated. The program proposed to establish 20,786 ha of woodlot and 11,905 ha of agroforestry plantations on degraded Sal forests and on areas where trees from a previous program had already been harvested (second rotation). The objectives of this program were: (i) to increase the overall tree resource base of the country; (ii) to arrest

the depletion of forest resources, (iii) to enhance the conservation of forests in selected protected areas; and (iv) to attain sustainable management of forest resources through local community participation. All these objectives were targeted as important steps towards extending the capacity of both the state and civil society in sustainably managing forests (thus conserving their ecological functions) and increasing the value generated from forest goods and services towards sustainable (rural) development.

1.3 The research problem and objectives

Sustainable development of forests means increasing the potential of local people to influence and control their future on a long term basis, a goal that can be achieved by strengthening capacity, supporting equity and fostering empowerment (Gow, 1988). It is aimed in PFM proposal that through participating in PFM projects, stakeholders would enhance their capacity to conserve forest ecological functions, to increase value-generation in terms of goods and services and to attain sustainable (rural) development. Although much of the literature on participatory forestry in Bangladesh evaluates the existing conditions and management problems (ADB, 2001a; 2001b; Islam, 2000; Khan and Begum, 1997; Bhuyan, 1991), no study has evaluated stakeholders' capacity development for PFM. Stakeholder analysis might help to find out these issues and to highlight leverage points in relation to stakeholders' capacity development for sustainable PFM.

Any development intervention that seeks to change the rules of the existing system will produce winners and losers. Existing stakeholders with entrenched interests in the previous system will have major interests in determining how attempts at institutional change will affect their power and interests. Thus, the sustainability of PFM is closely linked to the active support and participation of affected individuals, groups, and organizations in designing, implementing, and monitoring the PFM process (Salam and Kabir, 2001). Because the primary focus of PFM is on improving the livelihood of targeted stakeholders through sustainable PFM development, this generally requires an increase in the capacity or empowerment of the primary stakeholders for managing the forests. Thus, this study aims at performing stakeholder analysis in order to evaluate the stakeholders' capacity development for sustainable PFM.

2. Materials and methods

2.1 Study site

The plain-land forests in Bangladesh, commonly known as 'Sal forests' can be divided

into two parts: central and northern. Central Sal forests are located in Dhaka, Gazipur, Tangail, Mymensingh and Jamalpur districts and the northern Sal forests are distributed in small patches in Dinajpur, Rangpur and Rajshahi districts. The Sal forests under the FD consists of 120,255 ha of which 104,616 ha (about 87%) are located in the central region with the remaining 15,639 ha (about 13%) located in the northern region. The study was conducted in Bangladesh's central Sal forest areas. Sal forests have been dramatically reduced in area and now exist only in a number of widely scattered and degraded patches. The forests consist of patches of Sal *(Shorea robusta)* coppice occasionally with other tree species. Sal forest areas have maximum encroachment and most of the root stock of remnant Sal forests has lost coppicing power suggesting the use of plantations for re-afforesting such areas. About 20,382 ha of central Sal forest lands were distributed among 18,940 participating farmers for the PFM (FD, 2001).

2.2 Methods

Identifying stakeholders for PFM is a difficult task because of existing multiple interest groups. Freeman (1984, p.vi) defines a stakeholder as "any group or individual who can affect, or is affected by, the achievement of a corporation's purpose." Grimble and Wellard (1997) define the term stakeholder as any group of people, organized or unorganized, who share a common interest or stake in a particular issue or system. From the light of the above definitions it can be said that stakeholders are persons, groups or institutions that are interested in a project and/or may influence its outcome and the key stakeholders have significant influence on or importance to the project. Grimble and Chan (1995) suggest that stakeholders be initially identified through reputation, focus groups or demographic analysis. They elaborate the span of stakeholders at global, national, regional and local levels.

Based on the above notions, a comprehensive investigation was carried out using focus group discussions, individual interviews and sample survey for this study. There are three forest divisions in the central Sal forests: Dhaka, Tangail, and Mymensingh. Each forest division is divided into a number of administrative blocks known as 'beat'. There are 22 beats in Dhaka forest division, 31 beats in Tangail forest division and 22 beats in Mymensingh forest division. At first, six beats—two from each forest division—were selected randomly. A focus group discussion was conducted in each selected beat and in total 12 focus group discussions were conducted. The research team organized focus groups consisting of local stakeholders living within and nearby forests. In order to gain better insights into the implementation of the PFM project that affects the interests of

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various stakeholders, focus group participants were selected to representing all categories of local stakeholders. Individual interviews were conducted with three divisional forest officers, three conservator of forests, four range officers, four assistant conservator of forests, six beat officers of the selected beats and six forest guards. Both focus group discussions and individual interviews were conducted using the predetermined set of topics and these are: (i) How stakeholder was defined; (ii) How stakeholders were selected for direct participation; (iii) If all affected stakeholders' views were included; (iv) Level of controversy about the strategy of PFM project; (v) Transparency of stakeholder role; (vi) Level of participation in decision-making process; (viii) Relationship among the stakeholders; (ix) Stakeholders' rights, responsibilities, revenues; (x) Role played by government agencies (e.g. FD). The stakeholders were identified on the basis of the following questions: (i) Who is expected to gain or lose as a result of the project's success? (ii) Who could gain or lose if the project is initiated, but fails? and (iii) Who could gain or lose if the project is never begun?

A sample survey was conducted on participating farmers using stratified random sampling. Amongst the local stakeholders, participating farmers are the only stakeholders that are directly involved in the process. Thus, in order to know their views participating farmers were selected for interviews. From each selected beat 100 participating farmers were selected randomly, yielding 600 in total. At the time of survey, 19 selected participating farmers migrated temporarily from the study areas and did not return during the survey period; they were therefore discarded from the study. Thus, the sample consisted of 581 participating farmers. Each selected participating farmer was interviewed through a questionnaire.

3.2 Data analysis
3.2.1 4Rs Stakeholder Analysis
Stakeholder analysis was used to evaluate the stakeholders' capacity development for sustainable PFM. Stakeholder analysis is the identification of a project's key stakeholders, an assessment of their interests, and the ways in which these interests affect project risk and validity (Grimble et al. 1995). The '4Rs' is the name of a tool for understanding power issues in stakeholders' roles (Dubois, 1998). According to Tekwe and Percy (2000), the 4Rs tool analyses stakeholder rights, responsibilities, revenues (benefits) and relationships, demonstrating the interdependence and interactions between them. While stakeholder analysis looks at the different relationships

stakeholders have with forest resources, the 4Rs looks at how stakeholders relate to one another over forest use. Thus, it provides a step towards internalizing and strengthening stakeholder roles by first 'unpacking' them into 'rights', 'responsibilities' and 'revenues', and then assessing the 'relationship' between them (IIED, 2001).

Here rights, responsibilities, revenues and relationships are defined as follows:

- ✧ 'Rights' are to access and use of forest products and access to employment deriving from the PFM.
- ✧ 'Responsibilities' are PFM tasks, implementing decisions on rules, procedures, and beneficiaries and abiding by the rules.
- ✧ 'Revenues' are accrued from forest resources accessed, and from employment in PFM, as well as indirect benefits such as improvement of the environment.
- ✧ 'Relationships' dimension includes the stakeholders in the conflict and their history with one another. It also includes the intangibles of any conflict situation, such as trust, respect, and legitimacy.

In order to perform 4Rs stakeholder analysis information derived from focus group discussions and individual interviews were analyzed using conceptual content analysis and data derived from sample survey were analysed statistically using statistical package program SPSS 11.0 for windows.

4.0 Results and Discussion
4.1 Identifying Stakeholders
Sal forests in Bangladesh are national forests with differing land use, a large range of stakeholders and a range of views and preferences. Thus, identification of stakeholders is a key factor for making the project success. But the project implementers did not perform any stakeholder analysis at any stage of PFM projects. The 1993 Bangladesh Forestry Sector Master Plan defines PFM stakeholders as the 'users of a community' who regularly use a particular area of forest for gathering and collecting of forest resources (FMP, 1993), which excludes non-users who have interests on forest resources. The failure to include all potential stakeholders in PFM process is certainly a limitation for stakeholder's capacity development towards sustainable PFM. Conceptual content analyses of information derived from focus group and individual interviews identified future generations, national and foreign governments, local governments, local elites, funding agency, policy makers, forest industry, NGOs, pressure groups, FD staff, forest dwellers, political leaders, religious and cultural organizations, and participating farmers

as potential stakeholders for PFM (Table1). Conceptual content analysis also extracted key stakeholders of the PFM as described below.

Development assistance agencies have responded to the merging of narratives by funding conservation activities: "biodiversity conservation and land stabilization have become major priorities for multilateral lending agencies and other development institutions" (Brosius et al., 1998, p. 163) and there has been a dramatic increase in bilateral and multilateral development assistance funds spent on biodiversity conservation (Wells and Brandon, 1993). The USAID, CIDA, SIDA, IDRC, German Development Agency, World Bank, ADB, and UNDP are all active in funding conservation activities, provided they make some link with local social and economic development (Campbell and Mattila, 2003; Agrawal and Gibson, 2001; Boza, 1993; Lundy, 1999; Songorwa, 1999; Wells and Brandon, 1993). As a funding agency, ABD is a key stakeholder of PFM in Bangladesh. Moreover, a range of research bodies engaged in conservation of biological and environmental research have established interests in using participatory forests and thus intellectuals and academics of these research bodies are key stakeholders of PFM.

The national government is a broad stakeholder in PFM as participatory forest resources can be an important source of its revenue. In addition, efficient PFM policies attract international support because of it's contribution to protect the global environment. The Ministry of Environment and Forestry and the FD have direct or indirect interests in managing the participatory forest resources. The FD can halt deforestation and enhance reforestation through involving stakeholders in PFM. It is already recognized that the FD alone cannot protect and mange forests but they can be managed in partnership with local people who have vested long-term interests (Salam and Noguchi, 1999; FMP, 1995).

Forest and forest margin dwellers are another major set of stakeholders with a direct interest in forest resources. The majority of the people in forest areas depend on the forest for their livelihoods. Indigenous, tribal and migrated settlers use the forests to extract a wide variety of forest resources and for shifting agriculture. Moreover, they have encroached upon a sizeable amount of forest lands, on which they have been practicing permanent agriculture. These people are affected by the decisions on PFM and thus have interests as well as influence on the PFM project. Participating farmers who are directly involved with the PFM and have a share of benefits are the most

important stakeholder of PFM. A wide variety of secondary industries, including sawmills, and brick fields are depend on forest resources and thus have interests in PFM. Indirectly, the state apparatus as a whole that includes its employees, professionals and business elites, as well as politicians—all benefit from the revenue earning capacity of the participatory forests. Each has an interest in maintaining the forests as forests rather than seeing their conversion to agriculture.

4.2 Selection Criteria of Stakeholders

Adequate criteria for selection of stakeholders in PFM are important because of large number of stakeholders with verities of interests. Mixed culture prevails among Sal forest dwellers (tribal, indigenous and settlers live together), and dwellers have different political and religious background. Thus, it is especially important to keep the selection process of participating farmers as transparent and neutral as possible. Institutional mechanism in selection process should ensure four factors: transparency, representativity, inclusiveness and political neutrality. Care must be taken to distinguish between the various groups of indigenous people, settlers and migrants, the very poor and those outside the forests who are dependent on its resources, etc. and their differing priorities and needs. There is bound to be criticism of the selection process because it is impossible to include the views of all people in consultations. Thus, selection of key stakeholders from this cross-section of society should encompass the views of as many segments of the population as possible, especially tribes, religious and political segments should strictly be covered. Majority viewpoints of focus group discussions were that PFM implementers selected participating farmers without sufficient consultation with all types of potential stakeholders and thus local stakeholders were not satisfied with the selection of participating farmers. FD officials at the time of individual interviews, however, disagreed with viewpoints of focus group informants who claimed that they consulted with various stakeholders at the time participating farmers' selection. Participating farmers' opinion in this regard coincided somehow with the FD staff because about 79% of them thought that participating farmers were selected with sufficient consultation with different groups of stakeholders (Table 2). Due to increasing criticism of selection of participating farmers, the FD appointed NGOs at the time of Forestry Sector Project to motivate, mobilize and select participating farmers according to set criteria: landless; owner or occupants of less than 50 decimals of land; destitute women; and ethnic minorities (FD, 1997).

4.3 Assess Stakeholder Importance and Influence

Key stakeholders are those which can significantly influence, or are important to the success of the project. Influence is the power which stakeholders have over the project - to control what decisions are made, facilitate its implementation, or exert influence which affects the project negatively. Influence is perhaps best understood as the extent to which people, groups or organizations are able to persuade or coerce others into making decisions, and following certain course of action. Importance referrers to those stakeholders whose problems, needs and interests are priority of project implementers and funding agencies – if these important stakeholders are not assisted effectively then the project cannot be deemed a success. It is true that all the stakeholders are not equally important in achieving the goals of the project and they have different degrees of influence on the decision-making process of the project. By combining influence and importance using matrix diagram, stakeholders can be classified into four groups: high importance/high influence, high importance/low influence, low importance/high influence, and low importance/low influence (Smith, 2000; Bianchi and Kossoudji, 2001; IIED, 2001). Influence may derive from the nature of a stakeholder's organization, or their position in relations to other stakeholders.

Based on the results of content analysis of information derived from focus group discussions and individual interviews stakeholders were classified into their comparative importance and influence as presented in Matix1. In box A, the stakeholders having high influence in decision-making and are high important to the success of the project include the minister and the civil servant of the Ministry of Environment and Forest, concerned PFM implementing officials of the FD, and the funding agency: ADB. These stakeholders are the basis for an effective coalition of support for the project. In practice, the Ministry of Environment and Forest and the FD are the sole authorities to take decisions on the PFM and they consult with the ADB for various developments of the project and reimbursement of the fund.

Those stakeholders of high importance to the project success, but having low influence in decision-making—shown in Box B—include FD staff working in the field level, participating farmers and indigenous forest dwellers. These groups of stakeholders are the most important for project success, but are not necessarily the decision-makers. The problems, needs and interests of these stakeholders are likely to be the most important to improve policies and institutional processes and will require a special initiative if their interests are to be taken into account. Indigenous forest dwellers have severely

affected by the decision of PFM, but they have little influence on PFM. Experiences of PFM in different countries show that PFM programs must be carried out in ways that reflect local, regional, and national priorities (Reed, 2002; Malla, 1997). Where usufruct rights are respected and where local people are involved in forest management decisions, the likelihood of successful management is enhanced. Capacity development is integral to bridging gaps in the ability of stakeholders to participate as equals in new relationship. At the time of individual interviews, local FD staff claimed that although they are the most experienced persons in silviculture within the local environment their viewpoints were not asked for at any stage of decision-making process. Results of sample survey indicate that around 85% of the participating farmers did not participate in any stage of the decision-making process although about 94% of them believed that the PFM strategy could be more effective for sustainable forest management if they could participate in decision-making process (Table 2). In practice, decision-making process is "Top-Down' in Bangladesh PFM (Salam and Kabir, 2002) where the stakeholders in Box A make decisions and impel their decisions to those in Box B. Although the local stakeholders expect that the government agencies to be heard before making decision on PFM, consultation process use techniques like community meetings only served to divulge knowledge about the decision rather than to seek opinions or allow for influence. This leads to knowledge gaps between stakeholders and is a barrier to stakeholders' capacity development. Results of sample survey indicated that about 37% of the participating farmers did not know goals PFM and about 62% of them believed that they could contribute more in PFM if they knew the goals more clearly (Table 2). The above information indicates that participating farmers do not enjoy a full right to participation that includes consultation, negotiation and a certain limited right of decision-making.

The influential stakeholders, but with less importance in achieving the project purpose and outputs, are classified in Box C (Matrix 1). This group of stakeholders includes local elites, political leaders, local religious and cultural organizations and pressure groups. These stakeholders can influence the outcomes of the project, but their priorities are not those of the project. They may be a risk or obstacle to the project because the project purpose is to involve only vulnerable poor people of the project areas. At the time of individual interviews, local FD staffs mentioned that local political leaders and local elites have strong influence on local people. The local political leaders and elites take their position against the FD and encourage local people for destroying forests for their own interests (mainly for grabbing lands). There are evidences in PFM that local

people destroyed participatory forests managed by taking support of local political leaders and elites. It sometimes becomes almost impossible for the FD staff to protect forests from their destructive activities. Some Christian missionaries have been working in the study areas that have strong influence on the tribal people. It is revealed from the discussion with FD officials that these missionaries take stance in favor of tribal people even when tribal people destroy forests. Local tribal and non-tribal organizations are also strong in the study areas. Thus, it is important to motivate this group of stakeholders and incorporate it somehow in the PFM process.

The final group of stakeholders, in Box D, represents the least important and influential. The stakeholders belong to this group are environmental lobbyists, academics and intellectuals, forest industries and media. Their interests need to be monitored to ensure that (i) their interests are not adversely affected, and (ii) their importance and influence does not alter when circumstances are changed.

4.4 Analysis of Stakeholders' power using 4Rs Tool

Rights, responsibilities, returns and relationships (4Rs) of stakeholders were assessed based on results of content analysis of focus group discussions and individual interviews information and are shown in Table 3. The concerned ministers, civil servants and the FD staff usually have access and revenue collection rights over the PFM. The FD is the primary government agency responsible for executing the project activities and receives revenues from forest resources. Participating farmers are responsible for protecting and maintaining planted trees and they are given usufruct rights of forest and agricultural resources. They receive a share of benefits as: 40% from woodlot forestry and 45% from agroforestry from final harvesting and 100% benefits from interim products. Other stakeholders have no significant legal rights to forest resources and have no or few formal responsibilities for PFM development.

It is important to assess the rights, responsibilities and revenues (3Rs) together rather than separately, both within and between stakeholder groups. It is the balance between stakeholders' rights, responsibilities and revenues that provides an indication of the underlying power structures and of the current incentives or disincentives to achieve sustainable use of natural resources. Table 4 represents the ranked summary of the current situation of stakeholders according to the 3Rs. From the table it is clear that those who currently benefit more are the resource users. Trees of PFM are sold at open auctions where the timber traders bid on stand trees. The present marketing system is

completely in favor of the firewood/timber traders. It is perceived from focus group discussions that at the time auction timber traders set a much lower price than the market value of trees. Sometimes, FD staff works in favour of timber traders for setting lower price of trees for their personal interests. Thus both national government/FD and participating farmers with much responsibilities and rights benefit less than expected. Results of sample survey indicated that almost 100% of the participating farmers believed that they would not receive actual price of trees under the current marketing system (Table 5). Timber traders are the most opportunist stakeholders who are benefited most compared to other stakeholders.

Participating farmer motivation is a function of the realistic expectation of a reasonable return in the relatively near term (Gow, 1992). Thus, financial benefit from the PFM is important to motivate stakeholders to embark on the lengthy process of PFM. Results from sample survey indicate that about 46% of the participating farmers did not receive any financial returns from participatory forest at time of survey (Table 5). Among the participating farmers who had received financial benefits from their forests, about 30% claimed that the amount of returns was too low to motivate farmers to participate in future PFM programs. This is one of the most important obstacles to develop stakeholder's capacity for PFM.

The above situation creates an imbalance in power relationships and conflicts of interests, which, in turn, makes it difficult to achieve good relationships between stakeholders and clarity concerning their roles. This situation has negative effects on the stakeholders' capacity development for PFM. Analyzing the relationships between stakeholders, it was found that problematic relationships prevailed between stakeholders. Successful relationships are those built on trust, understanding and equal participation. The relationship between the FD staff and local stakeholders is charaterised by mutual mistrust, and therefore not very conducive to constructive partnership as far as sustainable management is concerned. Results of sample survey showed that about 32% of the participating farmers did not trust FD staff at all and about 73% of the participating farmers believed that FD staff did not work honestly for the development of PFM (Table 5). At the time of individual interviews FD staff also mentioned that they did not trust every participating farmer wholeheartedly. The relationships between the FD and the other local stakeholders especially forest resource users are poor. Improved communication channels are crucial for good relationships between stakeholders in a participatory process (Chambers, 1997). As for example, the major positive outcomes in

the Sri Lanka's PFM commented upon by all parties was the improved relationship between the forestry staff and the wider community as well as the gradual change in attitude amongst some staff (Tacconi et al., 1998).

It is the quality of relationships between stakeholders that determines progress in respect to sustainable PFM. PFM can only be attained its goal when local stakeholders as a whole indicate their interests and articulate a commitment to working with project implementers harmoniously. This agreement is a cornerstone to establish and maintain relationships between the local stakeholders and the project implementers. Experiences from PFM projects in different countries have shown that where this agreement is ignored, severe strains had eventually appeared and conflicts between the local stakeholders and the activating agents inhibited or stopped the process (Burbidge, 1988; Singh et al. 1992). Developing the capacity of stakeholders to meet new challenges and opportunities is key to finding consensus and reaching agreement on critical issues and concerns. Mutual agreement between project implementers and the local stakeholders is lacking in the study areas. Results of sample survey showed that about 82% of the participating farmers did not agree with the strategy of PFM (Table 5). Thus, collaborative mechanisms and negotiation forums must be developed so that the diversity and energy displayed by such institutional 'chaos' leads to sustainable PFM. Agreement on roles and strengthened local resilience are therefore most important issues for sustainable PFM.

The above discussions indicate that stakeholders' capacity for PFM did not developed up to level as desired by the project implementers. In order to assess the current capacity of participating farmers for practicing PFM, they were asked whether they perceived themselves to carry out PFM by their acquired capacity if they were allotted land. About 72% of the participating farmers reported that they had acquired capacity to run the PFM in future (Table 4). As forest dwellers, many of the participating farmers already acquired capacity for managing forests before the projects were carried out and contribution of project in developing capacity not untreatable. It is reveled from analysis that development of stakeholders' capacity for PFM is lower than expected. Thus, more initiatives should be taken to strength the capacity of stakeholders for PFM.

5. Conclusions

This study aimed at evaluating the stakeholders' capacity development for sustainable PFM. This study showed that stakeholders' overall capacity for PFM has not been developed up to the desired level. This study identified the following inherent constraints for stakeholders' capacity development: (i) project implementers did not identify the key stakeholders of PFM; (ii) project implementers failed to gain active support from all stakeholders, especially from stakeholders who are most influential but less important to the project's objectives (e.g. local elites); (iii) lack of scope for participating farmers and local level FD staff to effectively feed their experience and expertise into policy making; (iv) returns from PFM are not at the expected level and stakeholders with much responsibilities benefit less; (v) relationships between the project implementers and other stakeholders are based on mistrust and misunderstanding; (vi) disagreements between the stakeholders on critical issues and concern (e.g. marketing system, strategy of PFM); and (vii) unable to create sufficient trained beneficiary groups to carry out PFM by their own skills, knowledge and finance. In order to develop stakeholders' capacity for PFM, the project implementers need to identify the key stakeholders, expand their knowledge and skills, and establish a common base of working together, among them being: (i) share knowledge about the integrative concept of PFM, existing agreements and processes; (ii) understanding the notion and interests of all stakeholders; (iii) increase the capacity of stakeholders to implement partnership for PFM; (iv) improve networks and knowledge building among stakeholders; and (v) improve the quality of policy decisions through increased capacity of stakeholders to feed their knowledge into decision-making. Effective planning needs direct community involvement and thinking "of the project as involving a process of social learning, with frequent assessments of what has been accomplished and what has gone wrong, and a willingness to make appropriate adjustments in the course of the implementation process itself" (Friedmann, 1992; p.160). 'Top-down' approaches alone have usually been ineffective in achieving such tasks. Thus, any policy statements concerning the stakeholders' capacity development for PFM need to be backed up by drawing out the interests of stakeholders in relation to the problems which PFM is seeking to address or purpose of the project, identifying conflicts of interests between stakeholders, addressing needs and aspirations of key stakeholders, and by identifying the appropriate type of participation by different stakeholders at successive stages of the

project.

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Table 1: Potential and key stakeholders in the PFM sector

Level	Potential Stakeholders for PFM
Global	✧ Future generations ✧ Multilateral organization/donor agencies* ✧ Foreign governments ✧ International pressure groups ✧ International NGOs ✧ Foreign academics/intellectuals
National	✧ Future generations ✧ National governments* ✧ National political parties* ✧ Policy makers* ✧ Forest Department* ✧ Pressure groups ✧ Forest-based industries, including traders ✧ NGOs ✧ Academic/intellectuals
Regional	✧ Regional governments* ✧ Regional pressure groups ✧ Forest-based industry, including traders* ✧ Extractive industry (logging companies and sawmills)
Local	✧ Local governments (Union council)* ✧ Extractive industries: saw mills, brick fields* ✧ Local elites* ✧ Forest dwellers: tribal, indigenous and migrated settlers ✧ Religious and cultural organizations* ✧ Pressure groups: tribal organization, settler organization etc.* ✧ Groups defined by beneficiary status (Participating farmers)*

*-Key stakeholders

Table 2: Participation of participants in decision-making process

Participant's view	Percent
Whether stakeholders are satisfied with the selection of participating farmers	
Satisfy	79.4
Don't satisfy	20.6
Whether participated	
Participated	15.4
Did not participate	84.6
Whether important to participate	
Important	94.0
Not important	6.0
Whether participating farmer know the goals of PFM clearly	
Knows	62.8
Doesn't know	37.2
Could participants contribute more if they knew the goals clearly	
Yes	61.9
May-be	38.1

A	B
High Importance and High Influence • National Government: Concerned Minister and civil servants • Forest Department: Chief Conservator of Forest, National Project Director of PFM, Divisional Forest Officer, Territorial Conservator of Forest, Range Officer • Funding Agency: ADB	*High Importance and Low Influence* • Field level Forest Department officials • Participants • Indigenous forest dwellers

C	D
Low Importance and High Influence • Local elites • Local communities • Politicians • Pressure groups: tribal organization • Cultural and religious organizations	*Low Importance and Low Influence* • Environmental lobbyists and organizations • Academics and intellectuals • Forest based industries • International media • Local media

Matrix 1: General categories of key stakeholders in relation to forest management.

Table 3: Analysis of stakeholders that participated in PFM using '4Rs'

Stakeholder	Rights to PFM	Responsibilities	Returns	Relationships
Concerned Minister and civil servants	• Access to all resources	• Overall leadership • political support • policy formulation	• Revenues	• Good FD • None with local stakeholders
Forest Department	• Access to all resources • Management authority • Collection of revenues	• Overall responsibilities for smooth implementation of PFM	• Revenues	• Poor with local stakeholders
ADB (Funding agency)	• No legal right	• Improve global environmental • Support conservation	• Good environment	• Good with national stakeholders and FD
Indigenous or tribal forest dwellers	• Assumed ownership • No legal right	• Traditional management and protection	• Consumption • Cultural, religious and existence values	• Poor with FD staffs • Moderate with settlers
Participating farmers	• usufruct rights	• Protection of trees • Maintenance	• Share of benefits	• Moderate with FD
Forest dawdlers	• No legal right • Employment rights	• None	• Clean environment • Scope of work	• Poor with FD • Good with local stakeholders
Political leaders and elites	• No legal right	• None	• Clean environment and resources	• Poor with FD • Good with local stakeholders
Cultural and religious organization	• No legal right	• None	• Clean environment and resources	• Good with local stakeholders
Forest based industries	• No legal right	• None	• Timber and fuelwood	• Good with all stakeholders
NGOs	• Facilitate development	• Facilitator of development	• Creation of employment	• Good with all stakeholders

Table 4: Summary of current situation regarding rights, responsibilities and revenues

Rank	Greatest Rights	Most responsibilities	Most benefits
1	Ministers/civil servants/FD staffs	FD staff	Firewood/timber traders
2	Participants	Participants	Participants
3		Donor agencies	National government
4		NGOs	NGOs

Table 5: Returns from participatory forest.

Returns	Percent
Whether will receive actual price of trees	
Will receive	0.0
Will not receive	100.0
Whether received financial benefits	
Received	54.0
Did not receive	46.0
Whether financial benefit was satisfactory	
Satisfactory	69.8
Not satisfactory	30.2
Whether participating farmers trust FD staff	
Trust	67.8
Don't trust	32.2
Whether FD staff works honestly	
Work honestly	73.2
Doesn't work honestly	26.8
Whether agree with the strategy of PFM	
Agrees	81.6
Disagrees	18.6
Whether able to practice PFM by acquired capacity	
Able	71.8
Unable	28.2