

Community Participation – Key to Success in Co-management of Protected Areas in Bangladesh

Alamgir Hossain* and Roksana Karim

Department of Environmental Science and Management
North South University, Dhaka, Bangladesh

***Corresponding Author:** Lecturer, DESM, North South University
12 Kemal Ataturk Avenue, Banani C/A, Dhaka 1213, Bangladesh
E-mail: alamgir@northsouth.edu

Abstract:

Community based resource management is being considered as one of the best approach of natural resource management. Thus, special significance is given to co-management for natural resources in Asia. Bangladesh being one of the most densely populated country in the world with limited natural resources to meet the growing need also tried to implement community based resource management at different sectors. Nishorgo Support project (NSP) is a USAID funded project in Bangladesh focusing on co-management for forest management. The paper tries to investigate the success or failure of NSP in terms of the key pillar of community based resource management – people’s participation.

Key Words:

Co-management, Nishorgo Support Project, Public Participation, Protected Area

Introduction

In relation to natural resources, the term management can be defined as the ‘right to regulate internal use patterns and transform the resource by making improvement’ (Ostrom and Schlager, 1996, p.131). These activities can be performed by single actors or jointly by groups of individuals or as a result of cooperation among different groups. Collaborative management or co-management is ‘a situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources’ (Borrini-Feyerabend *et al.*, 2000). The World Bank has defined co-management as ‘the sharing of responsibilities, rights and duties between the primary stakeholders, in particular, local communities and the nation state: a decentralized approach to decision-making that involves the local users in the decision making process as equals with nation-

state' (The World Bank, 1999, p.11). According to Carlsson and Berkes (2005), all definitions of co-management have the same foundation which includes the following points: co-management is associated with natural resource management, existence of partnership between public and private actors and co-management is not a fixed state but a process that takes place along a continuum.

Humans are part of the natural ecosystems and only co-management takes this fundamental part of nature into account (Lane, 2001; Borrini-Feyerabend *et al.*, 2000). Understanding the social context of protected areas will have important implications for the implementation of management strategies by reducing conflicts stemming from natural resource management (Lane, 2001). By integrating knowledge, skills and resources of local populations with other stakeholders (e.g. non-governmental organizations) and government agencies, it is possible to alleviate the negative social and cultural impacts that protected area status has traditionally inflicted upon the communities (Rao and Geisler, 1990; Lane, 2001). Giving the communities decision-making power gives them an invested interest in the project. A report by World Conservation Union Working Group to the Intergovernmental Panel on Forests observed an important fact that "In many countries, community involvement is proving to be a cost-effective, socially just, and environmentally sound approach to stabilizing natural forests" (Poffenberger, 1996). State alone might not be able to manage resources in developing countries due to lack of resources. State should be involved just as partner with community and other stakeholders in management system, which will manage resources and also ensure rural development. Thus co-management takes into account equity, social justice and democracy in natural resource management.

If effectively implemented, co-management recognizes and acknowledges the importance of involving the various actors, interests and concerns that exists for that particular protected area. In addition, while co-management decentralizes power to local stakeholders, ideally, the end result of co-management would still achieve conservation goals and sustainable use of natural resources while simultaneously providing equitable sharing of resource-related benefits and responsibilities among the various stakeholders (Borrini-Feyerabend *et al.*, 2000; Borrini-Feyerabend, 1995). Some of the key variables influencing such outcomes are: identification and involvement of stakeholders; type of negotiation and equity in participation; the intent and content of the agreement; problems

associated with common property resources; lack of proper incentives; traditional vs. local/indigenous methods; rent seeking behavior of government; time, resources and social capital.

Importance of Community Participation

Since co-management involves shifting management power from a predominantly outside entity, be it national or international organization, to one of shared responsibilities with local communities, it stands to reason that, one key aspect of co-management is active (and effective) community participation (USAID, 2003). Without effective community participation strategies and implementation, co-management regimes will not be successful.

Public participation provides an opportunity to integrate social and environmental concerns into the decision-making process and thereby produce decisions that support sustainable development and also provides a means to manage social conflicts by bringing different stakeholders together (Petrova *et al.*, 2002). Other advantages are as follows (CSOPP and UNDP, 2000):

- It increases the efficiency of project activities by involving local resources and skills, thereby making better use of expensive external costs.
- It can increase the effectiveness of such activities by ensuring that, with people's involvement, these activities are based upon local knowledge and understanding of problems and will therefore be more relevant to local needs.
- It helps to build local capacities and develop the abilities of local people to manage and to negotiate activities.
- It can extend the range of project activities by sharing the responsibilities of an activity.
- It can identify key stakeholders who will be most affected by the activities;
- It can help to secure the sustainability of the activities as people assume ownership.
- It can help to improve the status of women by providing the opportunity for them to play a part.

Researchers have found that one of the most prominent challenges of integrating communities into the decision-making processes of conservation projects is the lack of time allotted due to short funding cycles and project timelines (McKinney and Harmon, 2002; Walters, Aydelotte and Miller, 2000). Along those same lines is the time and expense required for integrating

community participation into projects (CSOPP and UNDP, 2000). It can be difficult to justify spending the resources on promoting participation when resources could be spent on poverty issues instead (CSOPP and UNDP, 2000). Natural resource management issues are complex and community members may not fully understand them without proper education and information; thus, involving communities is a lengthy process requiring both time and money (Walters, Aydelotte and Miller, 2000). At the end, balancing expertise with public opinion can be inefficient and a challenging process (Steelman and Ascher, 1997; Walters, Aydelotte and Miller, 2000).

Another challenge identified is the lack of a clearly defined framework for community participation in legislation and unclear mandates from legislation ultimately result in confusion for all stakeholders involved (Steelman and Ascher, 1997). In past, most efforts have failed due to unsubstantiated commitment from bureaucrats and perceived apathy on behalf of the public (Steelman & Ascher, 1997). Thus, if public participation is going to be a viable part of the policy process, then public officials' role in the process must be clearly defined (Walters, Aydelotte and Miller, 2000).

The community themselves add complexity and challenges to the participation process. The obstacles to participation within and outside communities include (Singh and Lal, 2001); 1) Socio-cultural issues due to unequal social structures that keep some from participating in the decision-making process, 2) Socio-psychological issues due to unequal social structures that alienate the "have-nots" and generate fear that they can't demand their share of participation, 3) Politico-administrative issues (attitude and commitment of political leaders), and 4) Project related issues (nature and design of project) which can affect participation.

Communities are heterogeneous entities themselves and so community participation efforts must consider subdivisions within the community; moreover, if more than one community involved or potentially affected, then there may be additional differences to be considered (Borrini-Feyerabend *et al.*, 2000). Due to the diversity within each community, preferences given by community may be inconsistent and may lead to conflict (Steelman and Ascher, 1997).

Due to the complexity of the conservation and development projects, it is also difficult to ensure participation of all stakeholders—what helps one group may be a detriment to another

(Brandon and Wells, 1992). Rural communities are faced with the everyday challenges of poverty, economic exploitation, population growth, weak policies, and lack of localized skills and resources (Western, 1994), which makes conserving biodiversity the least of their priorities. It has also been documented that local communities perceive their challenges to be their distrust of those with power, their reluctance to take risks, their fear of economic consequences, their fear of overstepping customary roles, their sense of powerlessness, and their lack of skills in planning and problem-solving (Srinivasan, 1990). Also, conservation and development projects often shift the burden to the poor (CSOPP and UNDP, 2000).

Development of Co-management in Bangladesh

An equitable sharing of benefits and costs of a PA's protection and management among the stakeholders is an important part of co-management of PAs (Sharma *et al.*, 2007). The local communities, who were previously dependent on forests for their livelihood, are generally deprived from forest based benefits if the government declares the neighboring forest as PA. So they need to be compensated adequately for this loss and this can be achieved by establishing system that enables sharing the benefits with local people. So a sustainable partnership will require sharing both the benefits and costs. Due to the presence of poverty it can not be expected that they will invest cash money on such a system (Huda, 2006; Nishorgo Support Project, 2003).

A participatory natural resource management procedure can promote a sense of community empowerment as local stakeholders participate actively in decision making, implementation and benefit sharing processes. Successful examples of co-management initiatives can be seen in many countries including Nepal, India and Australia (Castro, 1997; Castro and Nielsen, 2001; Chapeskie, 1995; Hughes, 1996; Sarin, 2001). Success of this type of participatory management depends on proper identification and involvement of stakeholders; type of negotiation and equity in participation; the intent and content of the agreement; problems associated with common pool property resources; lack of proper incentives; traditional vs. local or indigenous methods; rent seeking behavior of government; time, resources and social capital (Castro and Nielsen 2001, p. 235).

For adequate participation, identification of stakeholders and power sharing level is important (Sarin, 2001). To ensure community participation they should be given enough importance and support. In case of Bangladesh Social Forestry Project, Forest Department had the option to establish complete control over the contested lands (Castro and Nielsen 2001, p. 235). This type of domination should be eliminated by equal power sharing among the different parties involved in co-management practice.

Lack of proper incentives is another important factor (Castro, 1997; Castro and Nielsen, 2001; Chapeskie, 1995; Hughes, 1996; Sarin, 2001) that was not adequately addressed in Bangladesh Social Forestry Project. Even if a participant performed the assigned task, there were no guarantees of continuation of the tenure. In most of the places, people seemed to be unsure about the benefit sharing process.

Communities may be heterogeneous entities themselves and so community participation efforts must consider subdivisions within the community. Moreover, if more than one community involved or potentially affected, then there may be additional differences to be considered (Borrini-Feyerabend *et al.*, 2000). Additionally, literacy rate and cultural barriers can be encroaching factors in negotiation process (Chapeskie, 1995). If the population is not homogeneous, their life style and language are different; if they do not have enough idea about administrative process, legal aspect and content of contract then the whole scenario becomes complex (Castro, 1997; Castro and Nielsen, 2001; Chapeskie, 1995; Hughes, 1996; Sarin, 2001). Thus the Bangladesh Social Forestry Project in some cases intensified the tension and conflicts between the government officials and local community instead of minimizing them (Castro, 1997). Allocation of resources should be enough in negotiation process. For example, in both case of Bangladesh Social Forestry project and Village Forest Joint Management in Uttarkhand, India the negotiation process were too quick to reduce the transaction costs and both project faced problems (Castro, 1997; Castro and Nielsen, 2001; Chapeskie, 1995; Hughes, 1996; Sarin, 2001). If the community is not convinced enough and participation is insufficient, then implementation of such project becomes difficult. So enough time and resource should be provided to involve them in decision -making process and they should get enough knowledge about their benefits by involving in the process.

Co-management arrangements can offer a socio-environmentally and economically appropriate means of increasing local participation in decision making process of resource management, which can be beneficial and empowering process for communities, state authorities and other stakeholders.

Bangladesh is already burdened with over population and the problem has become serious due to high presence of poverty. According to Hardin (1968), individual rational actions may lead to the tragedy of the common. In such a situation, tragedy of common pool resources is a possibility. Thus to protect the forest area , the government, under the Bangladesh Wild Life (Preservation) Order of 1973, has established 19 PAs covering an area of 2,42,675 hectors where any extraction of forest products is declared as illegal and punishable offence (Huda, 2006). Bangladesh Forest Department has launched Nishorgo Program (supported by Nishorgo Support Project, initiated on 2003, with the financial support of USAID) to protect and conserve bio-diversity in PAs with the help of the community through co-management. (Huda, 2006). The NSP is implemented in 6 of the 19 declared PAs that are under the management of FD.

Nishorgo Support Program (NSP)

On February 24th, 2004 The Nishorgo Program was officially launched by FD in Bhawal National Park with the motto “*Let us save nature for our future generation*”. It was developed in close consultation among the Ministry of Environment & Forests (MOEF), Forest Department and USAID. Under Nishorgo Support Project International Resources Group (IRG) is working with three local acclaimed NGOs: Community Development Centre (CODEC), Nature and Conservation Movement (NACOM) and Rangpur Dinajpur Rural Service (RDRS).

Nishorgo Support Project (2003) has the following six specific objectives: 1. Develop a functional model for formalized co-management of PAs. 2. Create alternative income generation opportunities for key local stakeholders associated with pilot co-managed PAs. 3. Develop policies conducive to improved PA management and build constituencies to achieve these policy goals. 4. Strengthen the institutional systems and capacity of the Forest Department and key stakeholders so that improvements in co-management under the Project can be

made permanent.5. Build or reinforce the infrastructure within Protected Areas that will enable better management and provision of visitor services at co-managed sites.6. Design and implement a program of habitat management and restoration for pilot Protected Areas.

A two-tier institutional structure of Nishorgo Support Project (2003) includes Co-management Council and Co-Management Committee PA Co-management Council has a broad-based structure, drawing people from different strata of the community from the total landscape. The total number of members does not generally exceed 55(Huda, 2006).

Co-Management Committee (CMC) consists of 19 members, elected by the Council following a structured guideline and constitution. (Huda, 2006). The Co-Management Committee is primarily responsible for overall management of the protected area. If the landscape of the protected area is too big, the Co-management Committee will segment the landscape into multiple sectors and form an informal action committee in each sector to undertake actions aimed at protecting the forest and conserving bio-diversity (Huda, 2006). The Committee will prepare an action plan for protecting the forest specifying roles and responsibilities of specific people selected for the purpose (Huda, 2006).

Involvement of Community Members in NSP

In each PAs, based on PRA report, stakeholders were identified and divided in two categories based on resource use. One is direct stakeholders who extract resources from forests and another is secondary stakeholders who do not collect resources from the forest directly. To achieve the goals of NSP by involving community members in and around the forest NSP has formed several types of groups among the villagers. These are: Forest User Group (FUG), Community Patrolling Group (CPG), Youth Club/Nishorgo Club, Federation and Folk-Song Team.

FUGs were formed containing 15 to 25 members of local community. There are chairman, vice-president, cashier, secretary as elected amongst general members in each group. The members of these groups arrange fortnightly/monthly meeting regularly with the supervision of Field Organizer (FO). The members of these groups contribute a certain amount of money and save it in a bank account which they can use later for different purpose. Training for different types of Alternative Income Generation (AIG) was provided to FUG members based on need. All the

members of these groups could not be selected for training due to limited financial support. Different AIG activities included poultry training, Nursery training, pig rearing, cow rearing, fisheries etc. After finishing the training, NSP provided some input as grants to the members according to their training. For example if anyone is trained for poultry then NSP provided them some chicks, poultry food to start on their own. AIG trainings were provided so that the community members can reduce their dependency on forest resources.

Federation was formed containing two members from each FUGs, mainly including the chairmen of each groups. Federation members meet in a monthly meeting.

Youth Clubs were formed to achieve the goal of conservation of forest for future generation. Young people are more open and active, and that's why NSP gathered them through forming clubs. The members of these Youth Clubs also build awareness among the local people of their surroundings and encourage them to protect forest.

Community Patrolling Groups (CPG) in different areas were formed to protect forest by regular patrolling, to help Forest Department to reduce illegal felling. Members also got training and necessary support (torch, shoe, dress, umbrella etc) in some areas.

Folk-Song Team received training to conduct cultural program in different areas. They organize plays to motivate villagers to protect forest, to increase plantation, aware people about harmful effects of destruction of forest resources etc.

Objective of the Research

Appropriate benefit sharing among the local stakeholders and government agencies is needed in co-management process (Castro, 1997; Castro and Nielsen, 2001; Chapeskie, 1995; Hughes, 1996; Sarin, 2001). Here the local communities and government agencies must be treated equitably as a member of the entire decision-making process. Otherwise it will be the capture of resources of local communities by NGOs and government agencies. Local community will be able to share benefits equitably with other parties if the participation of community is efficient and enough. Bangladesh Social Forestry project is criticized due to lack of participation of community

members and the domination of Forest Department (FD) (Castro, 1997; Castro and Nielsen, 2001; Chapeskie, 1995; Hughes, 1996; Sarin, 2001).

This research study focuses particularly on community participation and due to the participation there can be a huge change in overall situation of current natural resource management scenario. Objective of this research is to investigate and analyze the following issues:

- The level of participation of community members in decision-making process in co-management project to make it successful and is it enough for NSP or not.
- The governance structure of the decision making authority.
- The decision making process.
- Participation process of community member in different phases of decision-making process.
- Factors like complex bureaucratic system of government/lack of funding, which can affect the participation of community member
- Socio-economic impacts in the participation of community members.
- Participation of ethnic minorities in decision-making process.

Additionally, I planned to find out the lacking that may exist in the current management system in order to make necessary adjustments to ensure better progress.

Study Area

PAs cover an area of 2, 43, 677 ha, which accounts for 16% of the total area managed by the Forest Department and less than 2% of total area of Bangladesh. It includes 10 National Parks, 8 Wildlife Sanctuaries and 1 Game Reserve. NSP covers 6 PAs among the 19 protected areas and this study has covered three PAs that are located in north-eastern region of Bangladesh.

Table 1: Selected Protected Areas Under Nishorgo Support Project (Huda, 2006, p.3)

Name of the protected areas	Forest Type	Area in Ha
Lawachara National Park	Hill Forest	1250

Rema-Kalenga Wild Life Sanctuary	Hill Forest	1795.54
Satchuri National Park	Hill Forest	242.80
Chunuti Wild Life Sanctuary	Hill Forest	7761
Tekhnaf Game Reserve	Hill Forest	11615
Modhupur National Park	Sal Forest	8400

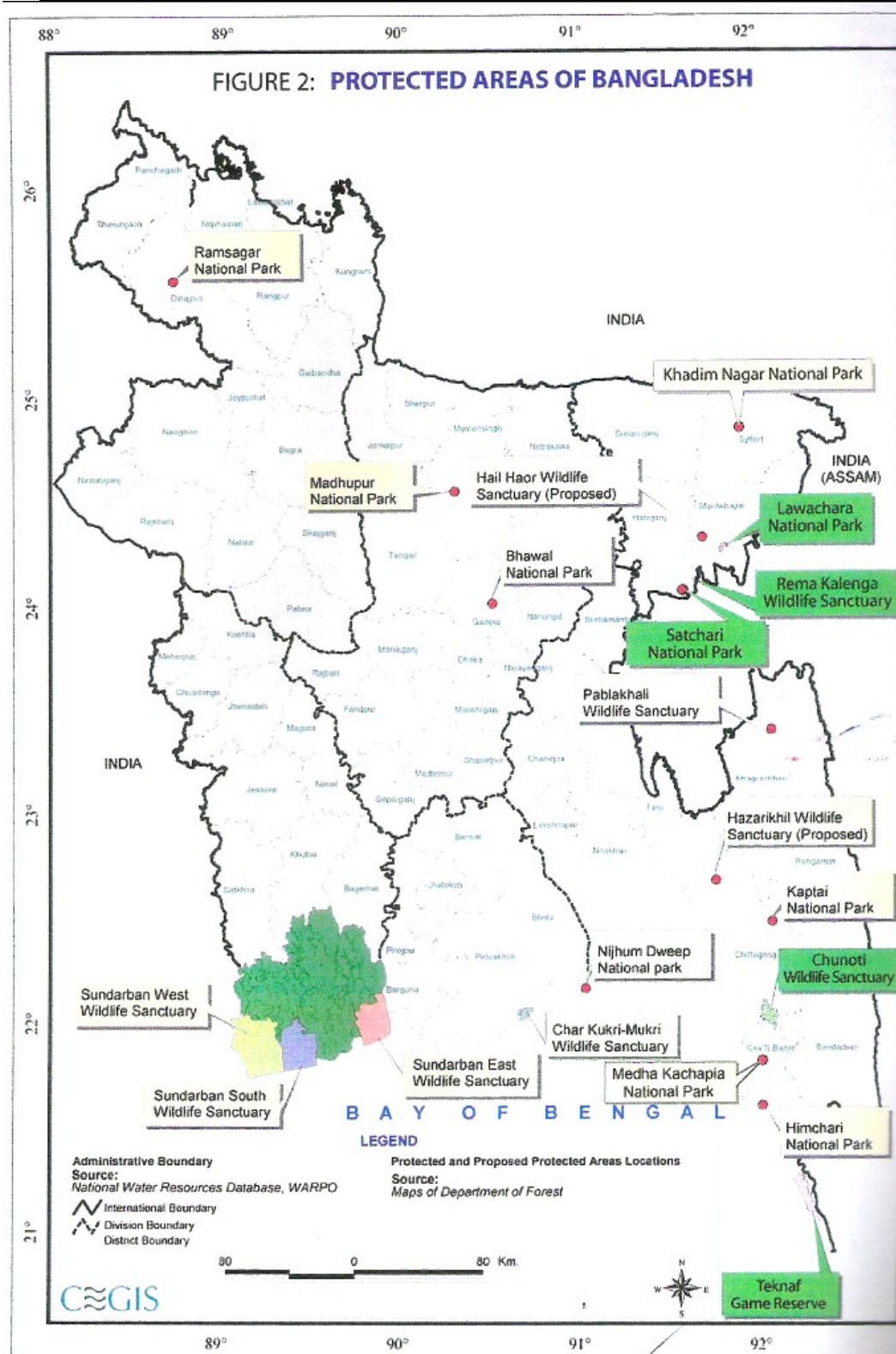


Figure 1: Selected Protected Areas of NSP

(Source: Management plans for Lawachara National Park, 2006)

Methodology

Research design is based on a combination of qualitative and quantitative research methods. The research findings are based on analysis of primary and secondary information collected for the study.

Primary information was collected through field survey. Three sets of questionnaires were prepared for different stakeholders and they are: the community members, the co-management committee, and the government/NGO officers. Data collection through field survey was conducted with structured questionnaires consisting mostly dichotomous and open ended question.

Sampling design is based on purposive sampling design. Firstly two PAs (Lawachara and Satchari National Park) were selected among the six PAs of NSP because of better communication with Dhaka, reasonable transportation cost, less travel time and limited budget. Afterwards three villages were selected from the two protected areas: among them one village is from the core zone of the forest and the other two villages are from the surrounding area of the forest. Those particular villages were sampled carefully so that different types of ethnic communities, forest users groups can be included in the field survey as true representative. Rema Kalenga Wildlife Sanctuary was subsequently included as the third PA under the study.

Table 2: Selected Protected Areas and Villages

Protected Areas	Villages
Lawachara National park	• Magurchara Punji
	• Baligaon
	• Muslim Para of Dolubari village
Satchari National Park	• Tiprapara
	• Inatabad
	• Ratanpur

Rema Kelanga Wildlife Sanctuary	•	Debrabari
	•	Chonbari
	•	Chamoltoli

Community members from the villages were sampled randomly and were interviewed with the help of structured questionnaire. Discussion sessions were arranged with different groups existing in the villages to understand the overall situation. CMC members of each area were selected for interviews, which included ACF/Range Officer as Member Secretary, at least two representatives from the Local Elite group, one representative from the Local Government, one representative from NGOs, one/two representative of Resource Owning Group, two Representatives from Forest Villages (Village Headman/Minister). NGO/Government officer's interviews were taken in both areas. Interviews of Site Facilitator and Field Organizers were taken by visiting the RDRS office. Additionally interviews of concerned Beat Officers were taken also.

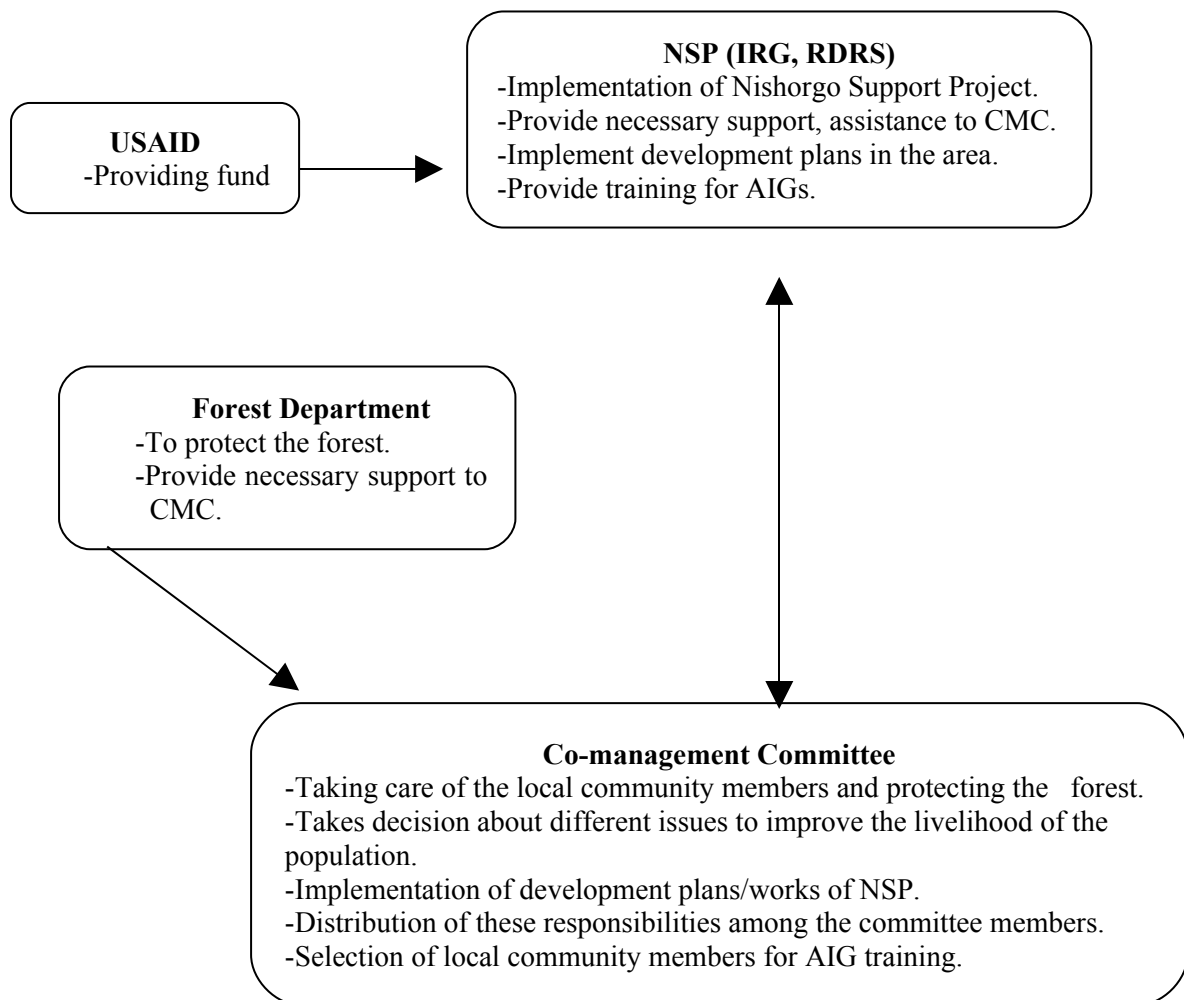
Secondary information was collected from the following sources:

1. Books/documents from NSP Resource Center- information was taken from documents related to Lawachara National Park, Satchari National park and Rema Kelanga Wildlife Sanctuary which includes Management Plan, site information brochure, book on co-management and other relevant literature.
2. Applied research support tools- Relevant information was also collected from a compact disc containing reference materials for applied research applicable in the 6 PAs of Bangladesh.
3. Internet browsing- Relevant journals, articles, documents on co-management were downloaded through internet.

Discussions Based on Results

- **The governance structure of the decision making authority**

Mainly the Co- Management Committee, as an institution, is responsible for the management of the surrounding forest areas and is supposed to take necessary steps for the implementation of different NSP activities. RDRS, NSP, USAID and Forest Department are mainly supposed to provide necessary support to the co-management committee and to the co-management council. Decision making and implementation of project work is a result of an overall co-ordination among the CMC, RDRS, NSP, and FD.



- **The decision making process**

Monthly meetings are arranged where all the CMC members get together. According to annual development plan, CMC carry out different activities and for that they distribute responsibilities among the committee members. Members inform the CMC about different problems of the locality, needs of local community members, ways to carry out development activities of NSP

in the locality, progress of ongoing activities, etc. After that, the chairperson, with the consent of other members takes decision to carry out the regular activities. Discussions takes place in the meeting and then members come to a conclusion. Most of the members take part in decision making and also express their ideas and opinions. If the majority supports for a particular issue or initiative then CMC tries to find out ways to complete the task. If the majority opposes then they reject the idea and move forward. Any single member does not have the power to take any decision alone. FD officers and NSP officers attend the meetings to advice CMC but do not take part in decision making.

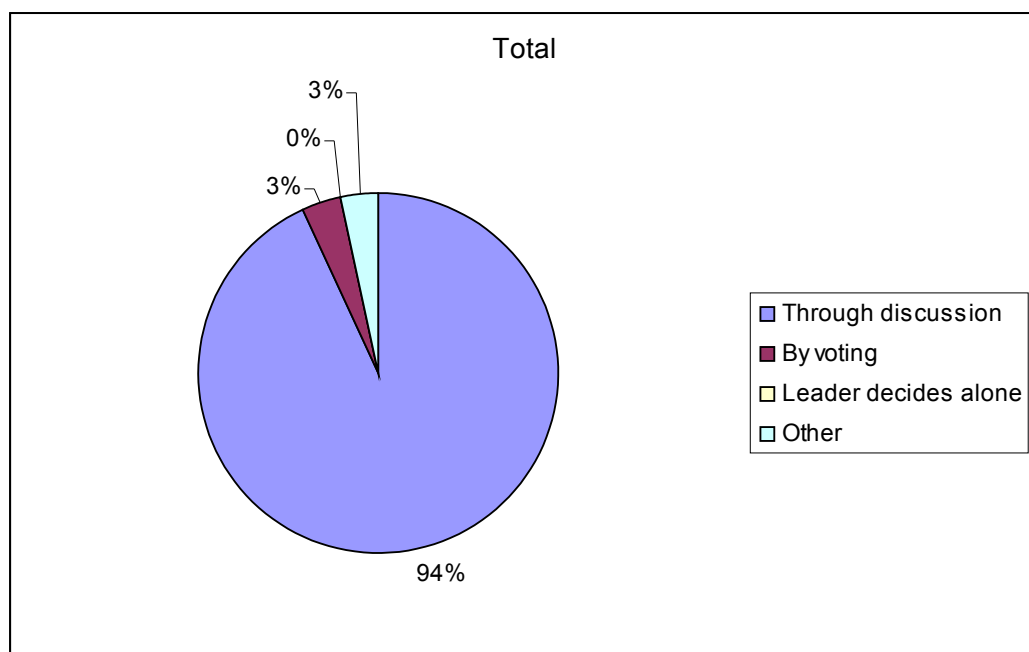


Figure 2: Decision making process. A= Through discussion, B=By voting, C=Leader decides alone, D=Other
94% CMC members agreed that decisions are based on discussion among the CMC members.

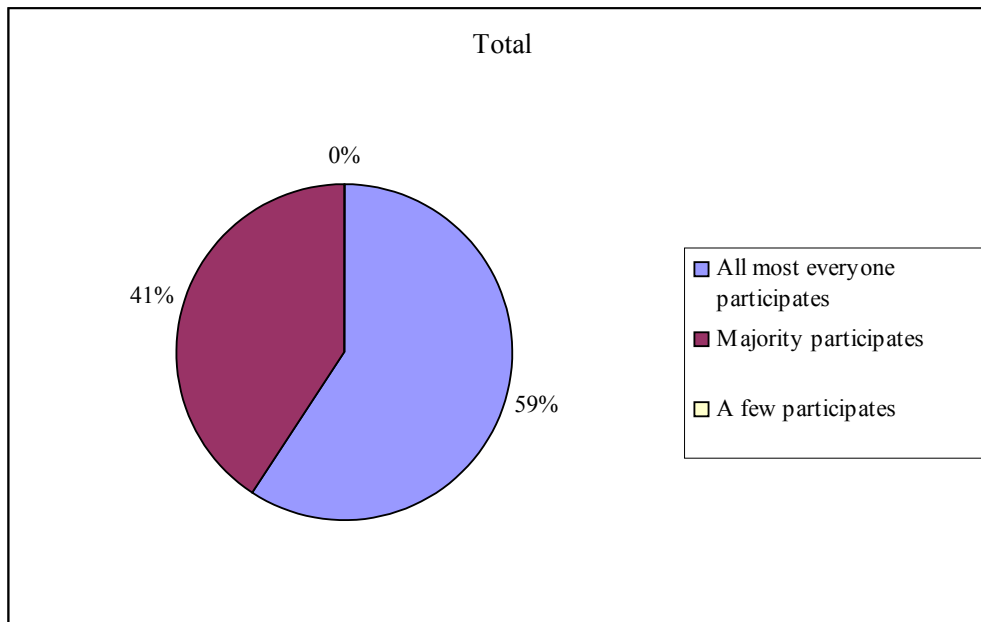
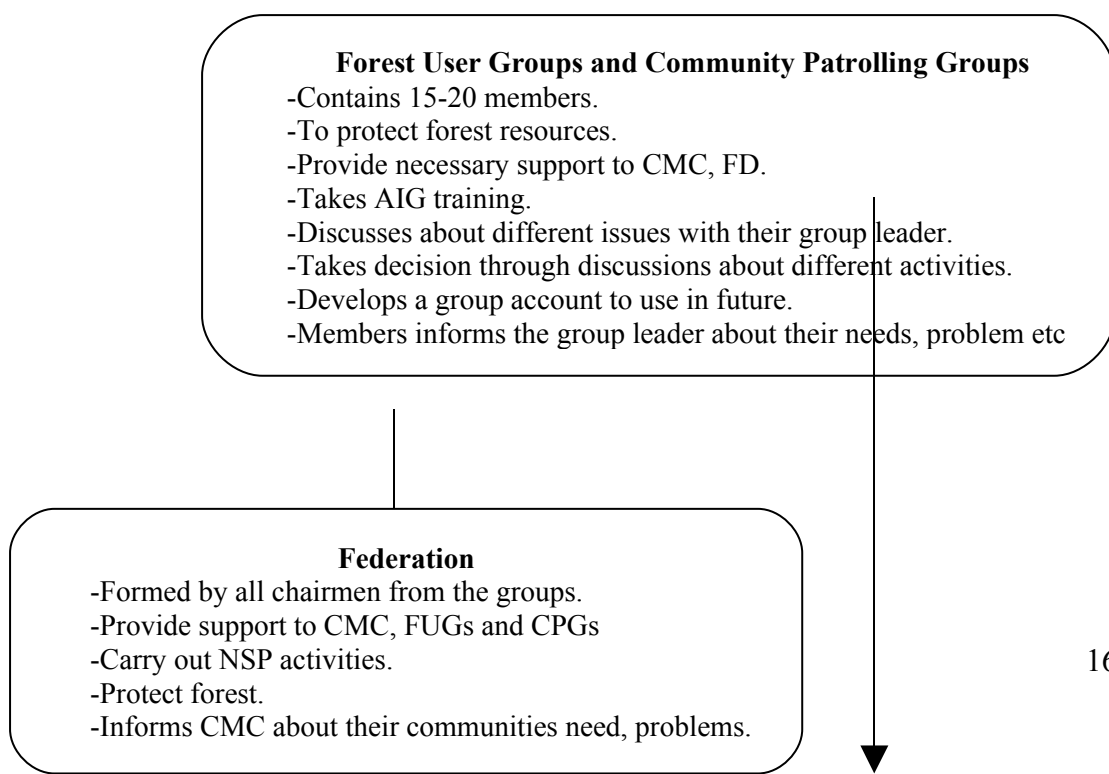
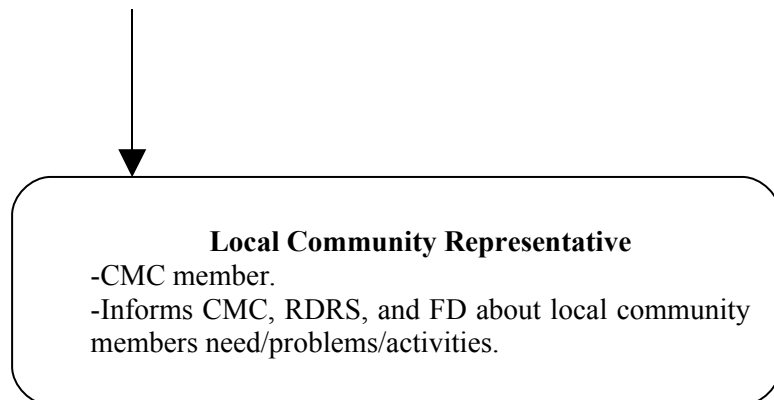


Figure 3: The level of participation in decision making. A=All most everyone participates, B= Majority participates, C= A few participates. During the survey 59% CMC members answered that majority participates in discussions.

- Participation process of community member in different phases of decision-making process**

There are Local Community Representatives among the CMC members, who were chosen as a representative based on their position on the community, qualification, willingness to work for the community, leadership quality. These representatives are directly involved with the community and they inform CMC about the problems, needs of the local community.





- **Factors like complex bureaucratic system of government/lack of funding that can affect the participation of community member**

An important aim of NSP was to develop a sustainable fund for CMC so that CMC can survive as an individual institution. The fund was supposed to develop from the entry fee collected from the park visitors. But due to the complex bureaucratic process in different ministry offices of Bangladesh government, NSP could not get the government order yet. So CMC does not have any individual fund and still depends on USAID donated fund for covering different activities. Due to shortage of funding, CMC can not fulfill the needs of the local community members. They can not provide more AIG options/trainings and honorarium to the patrolling group. As a result, local community members are sometimes frustrated and not much devoted/ interested about engaging themselves in NSP activities. Local groups are facing problems because members are mostly poor and they need alternative means to support their lives. So they are not regular in patrolling or group meeting. Some of them work as day labor to support their lives and some of them have started illegal felling again. The change which NSP has brought in local area, among the community members and the overall progress of NSP need to be sustained.

- **Impact of socio-economic aspects in the participation of community members**

Based on the information of income level of the sample population, it is understandable that a big portion of the population living in Satchari, Rema Kalenga and Lawachara are actually poor.

NSP has provided AIG training through which some of them have raised their income. But all the community members were not successful in using this AIG training to raise their income level. Some of the AIGs were unsuccessful to provide sustainable income generation for a longer period of time. Additionally patrolling group members used to get honorarium which also helped some people to change their profession. But due to shortage of fund this system of providing honorarium does not exist any more and some of the members now work as a day labor or sometimes get engaged in illegal felling to support their life. As a result, participation of community members in NSP activities has reduced. On the other hand, this AIG option was successful to draw people's attraction to NSP and people actually became engaged to NSP with an expectation to gain financial benefit to lead a safe life. So if NSP can have enough funds then there is a possibility that active participation of local community members will be increased. Because the people living in those area are very poor and they give more priority to economic benefit due to extreme poverty.

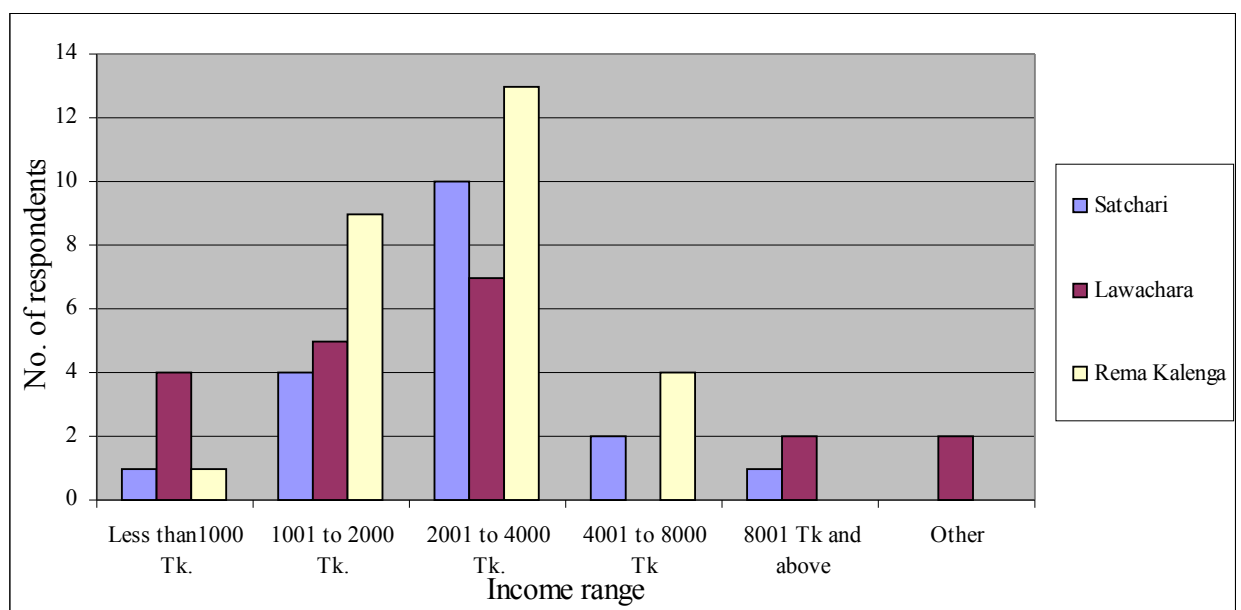


Figure 4: Income level of the community members who took part in they survey.

- Participation of ethnic minorities in decision-making process**

Ethnic minorities like Tipras, Khasias and Monipuris are also involved with NSP activities. They are also involved indirectly in decision making process like other community members. Because only the Headmen or representative of ethnic community is present in CMC and is

responsible for the benefit of his/her community. These representatives work as a bridge between CMC and community members.

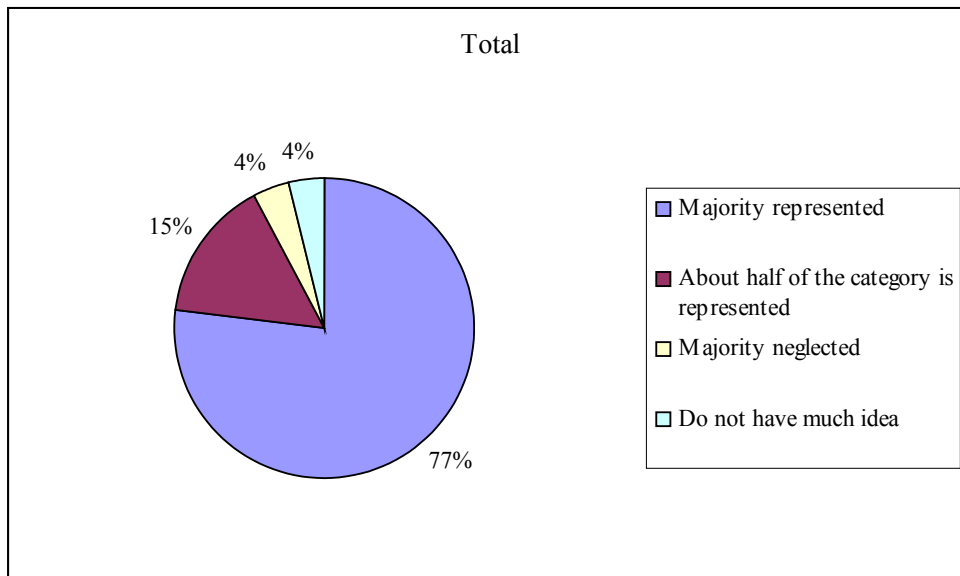


Figure 5: Representations of different ethnic group/religion/gender/income class. A=Majority represented, B=About half of the category is represented, C=Majority neglected, D=Do not have much idea. 77% CMC members answered that majority is represented in the Co-management Committee.

- The level of participation of community members in decision-making process in co-management project**

Local community members do not take part directly in decision making process but they have their representative in CMC. Those representatives are responsible for conveying the messages of local community members to CMC. Based on the survey results it is clear that community participation in decision making is not enough, still it is in moderate level and there is a need to increase the participation of community members in decision making. This increase will help to get better picture about the actual situation of the area and will foster the development of those areas.

The federation chairman is not formally included in CMC .The communities want more of their representatives in CMC by including federation chairman in the CMC. Community members believe that if the federation chairman is included then participation of local communities in decision making will be more direct. Because the federation chairman will distribute responsibilities to federation group members who are actually group leaders coming from different groups. These

group leaders will distribute responsibilities among their group members. This network will be more strong and efficient because local communities will be more informed and involved with the project activities. And federation chairman is a member of community who knows better about their problems and needs. So he will be biased toward the community and this might benefit the entire community. Another fact is community representative's opinion should get more preference because the entire project focuses at to how to improve and develop the livelihood of the local members to reduce dependency on the forest to preserve it for future generation. This co-management project of Nishorgo Program will be successful if it can ensure balanced participation of the local communities in the whole process.

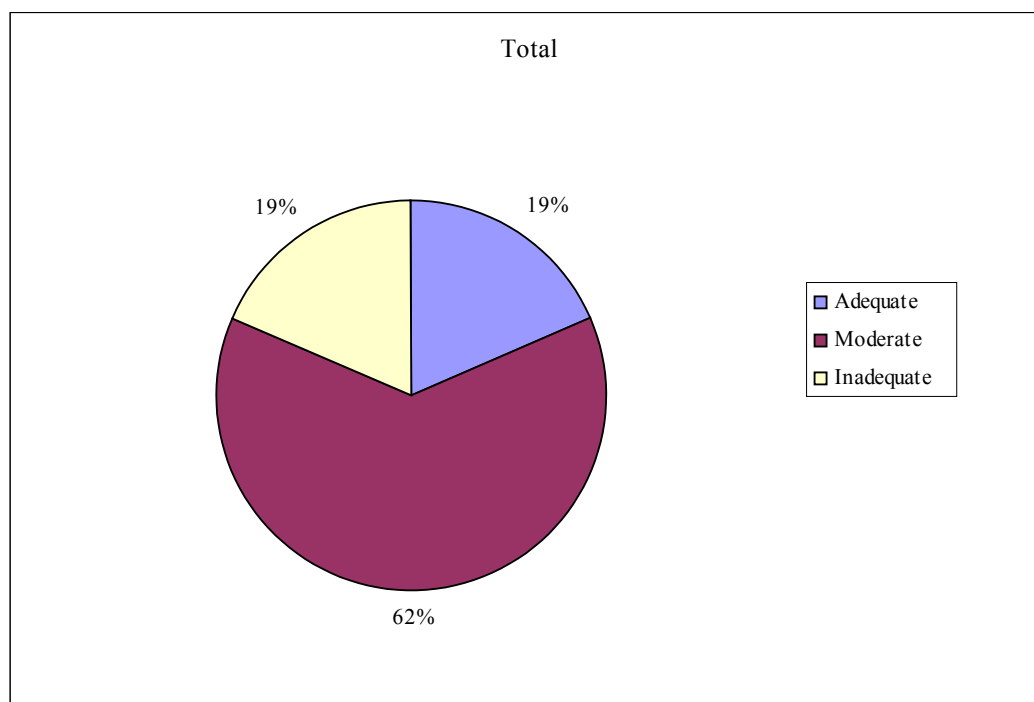


Figure 6: Local participation. 62% CMC members agreed that participation of community members in decision making process is in moderate level.

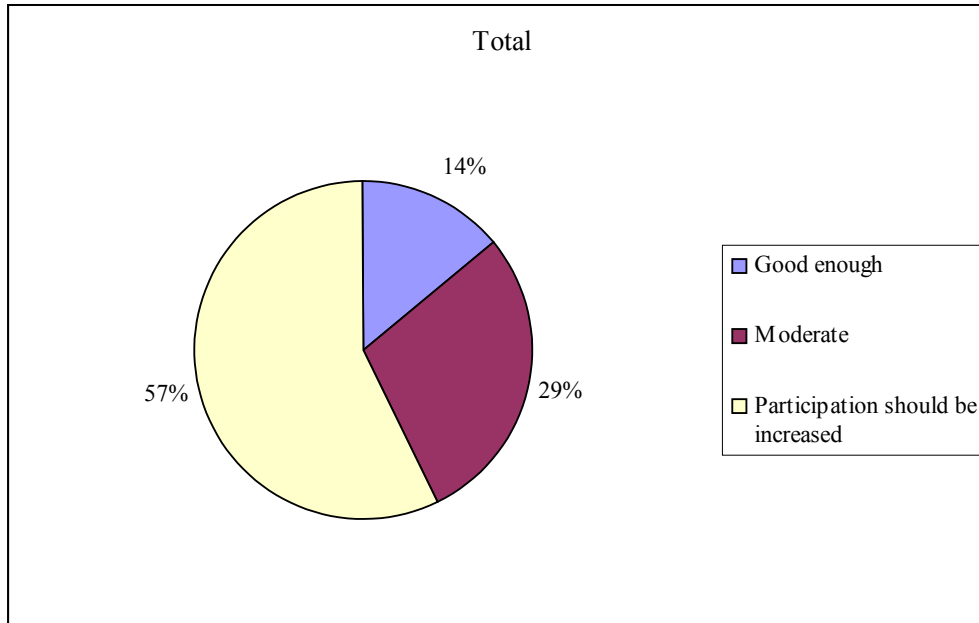


Figure 7: Local community participation in decision –making. A=Good enough, B=Moderate, C=Participation should be increased. 57% Government officers and NGO officers said that level of participation of community members in decision-making should be increased.

Discussions about Positive and Negative Aspects of NSP

At the beginning of NSP the CMC members could not understand the whole project mechanism. But now they have developed better understanding and this time they have arranged selection/election system to select CMC member so that CMC includes those who are active and will work for the community in future. But their activities are not getting enough momentum due to lack of funding. Funding opportunities could not develop due to complex bureaucratic procedure of the government of Bangladesh. Now local people are more aware of the situation that they have to protect the forest for their own benefit. Due to NSP initiatives this feeling is spreading among the people at the last stage of NSP period. It took so much time to develop this feeling among the local community member. But the bright side is that NSP could bring together the people from different classes to share the same objective which is to protect and conserve the protected areas in

sustainable manner. To sustain this action individual fund development is necessary. Still the fund has not developed that is why the whole system is at risk. Local community is frustrated and the different groups among the local communities are facing problems. If the CMC can work properly as an institution with adequate fund and active honest members then they will be able to protect the forest for the future generation. If the CMC develops better relation among the local community and other government agencies then we can expect better results.

Another important fact is, due to NSP activities some of illegal logging has stopped and the people involved have changed their profession at the mid period. As patrolling groups are not getting monthly salary and it is a challenge to NSP in terms of controlling illegal felling in future.

Due to NSP support local community was benefited financially, so people still hope that NSP will be there in future to support them. And local community wants more sustainable source of income and support.

NSP has reduced the gap between FD and local community which existed for decades. Now local community has trust on FD and FD does not possess dominating tendency any more.

This project has huge potential if it gets proper support from the government and from the locality.

Challenges of NSP:

- CMC structure may be improved by including federation members in CMC who are more involved with the community.
- Absence of 'we feeling' among the CMC members that is why ownership mentality did not develop sufficiently among them.
- Lack of respect/co-operation among the members of CMC.
- Less educated members in CMC.
- Unequal status of members in CMC.
- Less importance to the opinion of the observatory group members who attend the meeting but can not take part in decision making and do not have voting power.
- No allowance/transportation cost/benefit is provided to CMC members.

- Domination in decision making was noticed, but could not collect proper information on this factor as the respondents denied to provide information.
- Government has given adequate management responsibility to the CMC but more co-operation is needed.
- Lack of sufficient communication between FD and local community.
- Improper investigation system of FD for which cases were filed against some innocent people.
- No allowance/logistic for FD members is provided.
- Less number of FD members in decision making.
- Improper selection of AIG; as some of them were successful some was not. For example poultry activity failed but fisheries, nursery training, etc were successful.
- Need of more AIG activities because alternative income generation activities could not be a source of alternative income generation in some cases.
- Lack of knowledge about the different aspects of organization and its activities among the community members due to lack of education or proper communication.
- Lack of adequate co-operation between NSP initiatives and local community.
- No allowance for patrolling group.
- Frustration among the community members regarding NSP due to lack of funding and improper decision making process.
- Field Organizers are directly involved with the community but their opinion has no direct importance in decision making.
- FOs do not get any facility/transportation cost/mobile bill to communicate with the local community member or NSP officers.
- Complex bureaucratic structure of the government.
- Lack of commitment.
- Absence of adequate fund to support different activities.

Conclusion

An equitable sharing of benefits and costs of a PA's protection and management among the stakeholders is an important part of co-management of PAs. The local communities, who were previously dependent on forests for their livelihood, were generally deprived from forest based benefits when the government declared the neighboring forest as protected area. Co-management projects such as NSP, offered opportunity to get involved in protection and management activities of protected areas and also allowed creating self-employment opportunities through alternative income generation activities. This participatory natural resource management system promoted a sense of community empowerment as local stakeholders participated actively in decision making, implementation and benefit sharing processes.

An equitable sharing of benefits and costs of a PA's protection and management among the stakeholders is an important part of co-management of PAs. Otherwise it will be the capture of resources of local communities by NGOs and government agencies. Local community will be able to share benefits equitably with other parties if the participation of community is efficient and enough. So to make the co-management project successful participation of the local community in decision making process should be ensured.

Main focus of this research was to find out the level of participation of community members in decision making process. Based on the finding, it is clear that community participation should be increased to a balanced level so that this co-management project can achieve the goal of conserving the forest for the future generation ensuring the development of current generation.

Natural resource management issues are complex and so community members need to be motivated and made aware about relevant issues. At the beginning of NSP the CMC members could not sufficiently understand the whole project mechanism. Now local people are more aware of the situation that they have to protect the forest for their own benefit. Local community needs to be sufficiently motivated and funds constraints should be removed. If the CMC can work properly as an institution with adequate fund and active members then they will be able to protect the forest for the future generation

References

- Borrini-Feyerabend, G., Taghi M. F., Nguingui, J. C., & Ndangang, V. A. (2000). *Co-management of natural resources: Organizing, negotiating and learning-by-doing*. Kasperek Verlag, Heidelberg Germany: GTZ and IUCN.
- Brandon, K. E. & Wells, M. (1992). Planning for people and parks: Design dilemmas. *World Development*, 20(4), 557-570.
- Bruce, J. (1999). *Legal Bases for the Management of Forest Resources as Common Property*. Rome: Food and Agricultural Organisation of the United Nations.
- Cabarle, B.J. and Lynch, O.J. (1997). Conflict and community Forestry: legal issues and responses. *Proceedings of the Electronic Conference on Addressing Conflicts through Community Forestry*. Food and Agricultural Organisation.
- Carlsson, L. and Berkes, F. (2005). Co-management: concepts and methodological implications. *Journal of Environmental Management*, 75(1), 65-76.
- Castro, A.P. (1997). Social and anti-social forestry in Bangladesh. *Development Anthropologist*, 15 (1-2), 3-12.
- Castro, A.P. and Nielsen, E. (2001). Indigenous people and co-management: implications for conflict management. *Environmental Science and Policy*, 4(4-5), 229-239.
- Chapeskie, A. (1995). *Land, Landscapes, Culturescape: Aboriginal Relationships to Land and Co-management of Natural Resources*. Ottawa: Royal Commission on Aboriginal People.
- Civil Society Organizations and Participation Programme (CSOPP) of the United Nations Development Programme (UNDP). (2000) *Empowering People - A Guide to Participation*. Retrieved February 03, 2008, from <http://www.undp.org/csopp/CSO/index.html>.
- Enters, T., Durst, P.B. and Victor, M. (2000). *Decentralisation and Devolution of Forest Management in Asia and the Pacific*. Bangkok: Food and Agricultural Organisation of the United Nations and RECOFTC.
- Forestry Sector Master Plan (1993). Retrieved February 07, 2008, from http://www.bangladeshdir.com/webs/catalog/bangladesh_forest_department.html
- Gadgil, M., Olsson, P., Berkes, F. and Folke, C. (2003). Exploring the local ecological knowledge in ecosystem management: Three case studies. In Berkes, F., J. Colding, and Folke, C. (Eds.) *Navigating social-ecological systems: building resilience for complexity and change*. Cambridge, U.K.: Cambridge University Press.
- Hanna, S. (1998). Co-management in small-scale fisheries: creating effective links among stakeholders. Retrieved March 10, 2008, from http://www.cbnrm.net/pdf/hanna_001.pdf
- Hardin, G. (1968). *The Tragedy of the Commons*. Retrieved September 20, 2007, from <http://dieoff.org/page95.htm>
- Holm, P., Hersoug, B. and Ranes, S.A. (2000). Revisiting Lofoten: co-managing fish stocks or fishing space. *Human Organization*, 59(3), 353-364.
- Huda, S. K. (2006). *Co-management of protected areas in Bangladesh: A strategy for establishing an Institutional framework*. Nishorgo Support Project.
- Hughes, D.M. 1996. When parks encroach upon people. *Cultural Survival Quarterly*, 20(1), 36-40.
- Ingles, A.W., Musch, A. and Qusit-Hoffman, H. (1999). *The Participatory Process for Supporting Collaborative Management of Natural Resources*. Rome: Food and Agricultural Organisation of the United Nations.
- Leikam, G., Otis, S., Raymond, T., Sielken, N. & Sweeney, T. (2004). Evaluation of the

- Belize Audubon Society co-management project at Crooked Tree Wildlife Sanctuary and Cockscomb Basin Wildlife Sanctuary, Belize. Retrieved March 8, 2008, from <http://www.snre.umich.edu/ecomgt/pubs/bascm/complete.pdf>
- McKinney, M. & Will, H. (2002) Public participation in environmental decision-making: Is it working? *National Civic Review* 91 (2).
- Ministry of Environment and Forest (2006). Management Plans for Lawachara National Park, Satchari National Park and Rema Kaleng Wildlife Sanctuary. Dhaka: Government of Bangladesh.
- Management plan for Lawachara National Park(2006)
- McConney, P., Pomeroy, R. & R. Mahon, R. (2008). Coastal resources co-management in the Caribbean. Retrieved March 8, 2008, from http://dlc.dlib.indiana.edu/archive/00001439/00/McConney_Coastal_040512_Paper389.pdf
- Nayak, P. K. (2006). *Politics of cooptation: Self-organized community forest management and joint forest management in Orissa, India*. Canada: University of Manitoba.
- Nishorgo Support Project. Retrieved March 10, 2008, from http://www.nishorgo.org/nishorgo_support_project.asp
- Nishorgo Support Project. Retrieved March 10, 2008, from http://www.nishorgo.org/pa_maps.asp
- Poffenberger, M. (1996). *Communities and Forest Management*. Washington DC: International Union for Conservation of Nature.
- Pomeroy, S.R., Katon, M. B. & Ingvild Harkes, I. Fisheries Co-management: Key Conditions and Principles Drawn from Asian Experiences. Retrieved March 8, 2008, from <http://www.indiana.edu/~iascp/Final/pomeroy.pdf>
- Sarin, M. (2001). Disempowerment in the name of 'participatory' forestry? – village forests joint management in Uttarkhand. *Forests, Trees and People*, 44.
- Sharma, R. A., DeCosse, P., Roy, M., Khan, M. & Mazumder, A (2007). Co-Management of Protected Areas in South Asia with special reference to Bangladesh. Nishorgo Support Project.
- Saxena, N. C. (1997). *The saga of participatory forest management in India*. Indonesia: CIFOR Special Publication.
- Singh, N. M., and Nayak, P.K. (2003). *Adaptive Community Forest Management: A Case of Dhani Panch Mouza Jungle Surakshya Samity, Orissa, India*. New Delhi: Ford Foundation and Winrock International.
- Sundar, N., Jeffery, R. and Thin, N. (2001). *Branching out: Joint forest management in India*. New Delhi: Oxford University Press.
- Singh, M. & Lal, M. (2001). Participatory management of natural resources. In *community participation in natural resource management*. Mishra, G.P. and B.K. Bajpai (eds). Rawat Publications: Jaipur.
- Srinivasan, L. (1990). Tools for community participation: A manual for training trainers in participatory techniques. PROWESS/UNDP Technical Series.
- Steelman, Toddi, A. & Ascher, W. (1997). Public involvement methods in natural resource policy making: Advantages, disadvantages and trade-offs, *Policy Sciences* 30, 71-90.
- USAID. (2003) *Biodiversity Conservation: A Guide for USAID Staff and Partners*. CDROM.
- Walters, Lawrence, Aydelotte, J. & Jessica Miller. (2000). Putting more public in policy Analysis. *Public Administration Review* 60.
- Western, D. (1994). Linking conservation and community aspirations. *Natural connections: Perspectives in community-based conservation*. Ed. D. Western and R.M. Wright. Washington, D.C: Island Press

