

Constraints in Policy and Legislation with Respect to the Performance of Co-management Initiatives at Chunati Wildlife Sanctuary

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Abstract

Like many other countries, Bangladesh has established a network of protected areas (PAs) over the past several decades. The Bangladesh Wildlife (Preservation) Act was promulgated in 1973 and amended in 1974 for the protection and conservation of wildlife. Based on this law, the Forest Department adopted a PA system by selecting representative areas from Reserved Forests. Chunati Wildlife Sanctuary is one of these PAs, yet it contains interspersed settlements, cultivated lands, and paddy fields supporting the livelihoods of a large number of rural poor. To cope with these circumstances, the Forest Department introduced a comanagement approach in Chunati along with four other PAs. This approach has included the implementation of development projects, but has not addressed the legal provisions and policy directives that block truly participatory co-management of the sanctuary. This study assesses constraints in policy and legislation with respect to the performance of PA co-management. This research involved adopting criteria and indicators, interviewing members of the comanagement council and committee, and identifying aspirations of the forest user groups and community patrolling group. This study has revealed that existing National Forest Policy directives and legal frameworks are constrained in achieving the objectives of co-management in PAs by the absence of provisions enabling co-management in the policy directives and by existing measures that exclude stakeholder participation in PA management.

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Introduction

Two World Park Congresses and the International Union for the Conservation of Nature (IUCN) have advocated co-management of protected areas as fundamental to the sustainable administration of these areas (IUCN 2003). Co-management means: "the sharing of power and responsibility for resource management between the government and local resource users" (Singh and Vangile 1995). The rationale for co-management is to develop community-based approaches and institutional capabilities for wise management, sustainable productivity, and biodiversity conservation in protected areas (PAs). Under this scheme management authority, responsibility and accountability are shared among two or more stakeholders, including government bodies and agencies (at various levels), indigenous and local communities, non-governmental organizations, and private parties (IUCN 2003). Many countries have adopted co-management to empower local people to make decisions about the management of protected areas and share in the benefits derived from these resources (Svarstad *et al.* 2006).

The British initiated formal forest management in the Indian subcontinent, including Bangladesh, in 1862 (Choudhury 2002) and brought forest management under a legal framework by promulgating the Forest Act of 1865. It was reformatted according to other commonwealth countries in 1878. The government enacted an official forest policy in 1894 - probably the oldest policy document on Bangladesh's forests - that subsequently underwent revisions in 1955, 1979 and 1994 and is still used by the government (Chowdhury 2003). In order to implement specific forest policy directives, the government put into effect the more comprehensive Forest Act of 1927 by amending the Forest Act 1865 and its subsequent revision of 1878 (Sharma et al. undated). Responsibility for the implementation of the national forest policy and legal provisions lies with the Forest Department (FD). After this comprehensive amendment of forestry law, the FD brought a number of forest lands under the status of reserved forest. To manage these forests, the FD prepared a number of different regulations and management plans that excluded local participation in forest management. Since 1928 the FD has amended the Forest Act fourteen times. In 2000 the Forest Act was amended to accommodate participatory social forestry.



With growing concern for wildlife protection and biodiversity conservation in Bangladesh, the FD adopted a PA management system in reserve forests after enacting the Bangladesh Wildlife (Preservation) (Amendment) Act 1974 (GoB 1974). When managing these PAs, the FD treats local people as an element of the management problem. Although the concept of a "protected area" is not defined by law, there are three categories of de facto PAs inherent in the law: (1) national parks, (2) wildlife sanctuaries, and (3) game reserves. Except the PAs of the Sundarbans, most of the PAs are characterized by interspersed settlements of local communities, cultivated land, and paddy fields supporting the livelihoods of a large number of rural poor. Under these circumstances, the FD determined it was essential to introduce co-management in the PAs. Consequently, in 2004 the FD initiated the Nishorgo Support Project (NSP), under the advice and guidance of the United States Agency for International Development (USAID), to facilitate co-management in five PAs, including Chunati Wildlife Sanctuary (CWS).

The National Forest Policy 1994 and the Forestry Sector Master Plan (1995-2015) highlight the importance the government places on participatory forest management. The FD developed these documents in order to promote the expansion of PAs, the development of forest-based rural industries, the protection of biodiversity in degraded natural forests, the expansion of wildlife habitat, and the empowerment of people to participate in forestry activities. While meeting these objectives has been declared to be forest policy, it is still difficult to support co-management initiatives under these same policy directives. The forestry sector's master plan calls for "people-oriented programs" with PA expansion and community-based resource management. But, legal recognition of peoples' participation in PA management has not yet been incorporated into national legislation. As a result of the lack of official recognition of the role of local people in PA management, policy makers and stakeholders are constrained from implementing effective co-management in CWS. In order to assess the policy and legal constraints affecting co-management activities in Chunati Wildlife Sanctuary, I adopted related co-management criteria recommended by the International Tropical Timber Organization (ITTO 1998). These criteria are: (1) enabling conditions for sustainable co-management of the PA, (2) ecosystem health and biodiversity of the PA, and (3) economic, social and cultural aspects of communities relying on the PA. The specific questions I seek to answer include the following:

- How do the policies and legislation reflect the objectives of comanagement as seen by the criteria fixed for this study?
- 2. How do the members of Co-management Councils and Co-management Committees see constraints in policy and legislative documents?
- 3. What are the aspirations of forest user groups and community patrolling groups for co-management and how are these aspirations constrained by policy and legislation?

Background

Located in the southeastern region of Chittagong, Chunati Wildlife Sanctuary is comprised of seven forest blocks. The area used to be rich in biodiversity and had a dense forest of garjan (Dipterocarp spp.) and other hardwood species, which provided a good habitat for wildlife including the Asian elephant (*Elephas maximus*). The FD first introduced forest management in 1923 with a 20-year work plan. Under the Forest Act 1927, the FD declared the area a forest reserve. In 1986 Chunati Wildlife Sanctuary was created. The sanctuary covers 7,764 ha of forestland under the Bangladesh Wildlife (Preservation) (Amendment) Act 1974. FD personnel prepared working plans for the forest until 2000, with various prescriptions. These plans were strictly followed except for the period from 1942 to 1945, during World War II, when the forest was seriously depleted. Under these management plans, the main activity of the FD was tree felling followed by artificial regeneration to improve timber and fuelwood production, primarily in order to increase revenue for the government. Although the FD may have considered the impacts of the forest management plans on local people, they did not include locals in the designing of these plans.

The FD began focusing on the conservation value of Chunati forest after declaring the area a wildlife sanctuary in 1986. The department created "Preservation Working Circles" (a land-use designation) to introduce wildlife management practices in the management plan prepared for the ten-year period from 1991 to 2001. As a result of these prescriptions, commercial tree felling stopped, visitor facilities like a rest house and wildlife watchtower were constructed, a small fodder tree plantation was established, and large plantations of long and short rotation timber trees were established under donor financed projects on an ad hoc basis. In 2001 the FD



prepared a two-year summary action plan for the sanctuary as part of the conservation area management component of the forestry sector project.

Official documents reveal that forest management adopted distinct courses of action to achieve the desired objectives of the government. The British developed a national forest policy in 1894, which was subsequently revised in 1979 and 1994. Both the development and revision of the national forest policy has been top-down. Necessary policy instruments – including regulatory, judicial, institutional, economic, programmatic, capacity-building, and evaluation tools – have been established to steer development towards goals set in these policies. Thus, forest administration in Bangladesh was built on a linear model of the policy development process, starting with policy formulation and ending in policy implementation. However, monitoring and evaluation processes have often not been implemented due to insufficient information, frustration among actors, paucity of funding, and poor socio-economic conditions.

Durst (2002) suggests that as a general rule any policy developed in a top-down and elitist manner will be less effective than a policy that has been formulated through participation of interested and affected parties. Due to the lack of community participation in forest management and protection, as well as overexploitation from commercial logging by the FD and illegal logging for commercial uses, Chunati's forest has been severely degraded. Illegal encroachment for agriculture, settlements, brickfields, betel leaf cultivation and illicit felling have resulted in the sanctuary containing interspersed human habitations and cultivated land. There are now seventy settlements within the sanctuary and fifteen villages near the boundaries. Mollah *et al.* (2004) identified twenty-four stakeholder groups, nineteen of which are considered primary stakeholders, living in or near the sanctuary and dependent on its natural resources.

Seeking to assist the government of Bangladesh to improve its management of tropical forest resources, USAID funded NSP as part of its effort to reduce poverty through sustainable economic growth (FD 2005). NSP works in five PAs, including Chunati Wildlife Sanctuary. NSP seeks to achieve the following goals: develop a co-management model, identify income generation activities for key stakeholders, prepare appropriate policies and constituencies, strengthen the institutional

systems and capacity of the FD and key stakeholders, develop infrastructure, and restore habitats in the pilot PAs.

Methods

I collected both primary and secondary data while conducting this research. In order to understand the policies and laws that constrain co-management I analyzed only major national policies and juridical instruments, such as the Forestry Sector Master Plan, National Forest Policy 1994, Forest (Amendment) Act 2000, Bangladesh Wildlife (Preservation) (Amendment) Act 1974, and related bylaws and management tools developed under NSP. These policy instruments are used to steer development towards the goals set by national policies. There are other policy instruments that are also important. For better understanding I made a short listing of these policy instruments and grouped them according to the concepts of Nilsson (2003), as shown in Table 1.

Category of policy instruments	Examples of policy instruments (Nilsson 2003)	Policy instruments in Bangladesh for PA management
Regulatory/ judicial	Constitutional guarantees, laws, bylaws and other regulations, rights, tenure, trade, legally binding international connections	The Constitution of Bangladesh; Forestry Sector Master Plan; Poverty Reduction Strategy Paper; National Forest Policy 1994; Forest (Amendment) Act 2000; the Bangladesh Wildlife (Preservation) (Amendment) Act 1974; Social Forestry Rule 2004; Bangladesh Crab Export Policy 1998; Saw Mill (Licensing) Rule 1998; Brick Burning (Control) (Amendment) Act 1992; Brick Burning (Licensing) Rule 1989; the Chittagong, Cox's Bazaar and Comilla Forest Transit Rules 1959; General Forest Transit Rules 1960; East Bengal State Acquisition and Tenancy Act 1950; Land Reforms Act 1984, Limitation Act 1887; Cattle Trespass Act 1871; government orders on Co-management Council and Co-management Committee formation; forest user group guidelines, meeting resolutions, and agreements. Additional laws are used for forest offences and implementation of the forest and wildlife acts: Penal Code 1860, Evidence Act 1871, Criminal Procedure Code 1898,



Category of policy instruments	Examples of policy instruments (Nilsson 2003)	Policy instruments in Bangladesh for PA management
		Civil Procedure Code 1908, Social Welfare Act 1961, and Foreign Donation (voluntary activities) Regulation Act 1978 to guide and control NGOs
Economic/ market	Taxes and revenue systems, subsidies, stumpage,permits, auctions, certification	Taxes and revenue systems, permits, auctions, Public Procurement Rule 2003, Compounding Offence Report, fees
Information	Extending science, education and training, research, monitoring and information systems, policies in other sectors	Education and research (university level), in-service training at college level and at school level, Bangladesh Forest Research Institute, training abroad, policies in other sectors (National Environment Policy, National Agriculture Policy, National Water Policy, National Industrial Policy, National Land Use Policy, Integrated Coastal Zone Policy), RIM-GIS Unit of FD, Bangladesh Bureau of Statistics, FAO and UNDP
Institutional	Property regimes, concession systems, partnership/ dialogue mechanisms, mitigation of corruption and capital flight	Forest Department, NGOs, Comanagement Council, Comanagement Committee, forest user groups, community patrolling groups, and sawmill owners associations
Agreements	Management agreements, non-legally- binding international agreements	Participatory Benefit Sharing Agreement, Landscape Development Fund, Strategic Objective Grant Agreement, memorandum of understanding, etc.
Adaptation and evaluation	Manuals and plans	Forest manual; Management Plan of Chunati Wildlife Sanctuary 2006; Implementation, Monitoring and Evaluation Division Report; monitoring tools developed under NSP (bird counting for monitoring, photo monitoring, etc.)
Sustainable development frameworks	Overall coordination	Project steering committee, Bangladesh Wildlife Advisory Board
Forest sector programs/ strategies	National forest programs	Poverty reduction strategy paper, forestry sector master plan
Implementation Strategy Choice	Annual development program	Medium-term budgetary framework, annual development program
Implementation of Policy Frameworks	Development projects	The NSP Development Project Proforma, technical assistance projects, investment projects

I excluded the rest of the policy instruments due to time constraints. In order to assess the policy and legal constraints affecting co-management activities in Chunati Wildlife Sanctuary, I adopted criteria from those recommended by ITTO (1998). These criteria were: (1) enabling conditions for sustainable co-management of the PA, (2) ecosystem health and biodiversity of the PA, and (3) economic, social and cultural aspects of communities relying on the PA.

When analyzing policy and legal constraints of the co-management activities at Chunati, I looked at the larger policy process. I visited all concerned offices to collect necessary literature, articles and books. Some important articles were also collected through internet research. In order to understand how people who participate in NSP activities perceive the policies and laws under which co-management works, I visited Chunati Wildlife Sanctuary on several occasions between April and June 2007. During these visits I conducted interviews with members of a comanagement council and a co-management committee. I randomly selected ten members from the co-management council and ten members from the comanagement committee to interview using a semi-structured questionnaire that utilized blueprint and learning process approaches (Pimbert and Pretty 1995). I assessed members' understanding of policy instruments while conducting the interviews. I made an effort to clarify the terms used in the questionnaire while conducting the interviews. Finally, I participated in the 7th Co-management Council meeting held on April 21, 2007 at Chunati Union Parishad, Chunati and interacted with the council members there.

I developed an open-ended questionnaire in both English and Bengali to conduct interviews with members of the forest user groups (FUGs) and community patrolling groups (CPGs). In these interviews I sought to learn about local livelihood strategies, needs, and aspirations. I made a concerted effort to identify policies and legal documents that constrain co-management. After receiving feedback from CPG members, I translated the questionnaire from English into Bengali to conduct interviews with FUG members. I collected basic household information and data on major variables found on Messer and Townsley's (2003) checklist. This included data on human capital, natural capital, physical capital, financial capital, social capital, vulnerability context, seasonal patterns of occupation, and local institutions of the FUGs and CPGs. I interviewed six FUG members and ten CPG members.



Results

I analyzed constraints on co-management posed by existing policy, legislation, bylaws and management tools on the basis of the three criteria mentioned above. A fuller description and analysis of related constraints for each of the criteria is provided below.

Criterion 1: Enabling conditions

This criterion covers the general institutional requirements for implementation of sustainable co-management in PAs. Indicators like *policy and legal framework*, *economic framework* and *institutional framework* are used to assess constraints in implementing co-management in Chunati Wildlife Sanctuary.

Policy and legal framework. Appropriate policies and legal frameworks ensure the successful functionality of an institution and thus help achieve desired objectives. Successful policy formulation should be followed by a cycle of implementation, monitoring, and evaluation – the last of which the FD's projects generally lack. The FD prepared the Forestry Sector Master Plan (1995-2015) as a long-term strategy for forestry development in the country and revised forest policies accordingly to accommodate recommendations of the master plan. The department also prepared a five-year action plan to start implementation of the master plan. However, the department did not prepare subsequent action plans after completion of the first five-year action plan and today it is difficult to evaluate the implementation of the master plan. Because the FD failed to create subsequent action plans, development projects with durations ranging from three to five years were prepared on an ad hoc basis.

According to official records of the FD, consultants were hired to work under top-down management to prepare the master plan, national policy, and action plan. Stakeholders' participation in the preparation of these documents was minimal. Themes of the International Convention, Treaties and Protocols (ICTP) were included into the policy directives but there was a failure to incorporate local needs and aspirations in policy documents. This has resulted in negative attitudes, resentment towards PA management, and conflicts between FD staff members and local stakeholders.

The Bangladesh Wildlife (Preservation) (Amendment) Act 1974 is the special law on PA management in Bangladesh and this law prohibits almost any type of human activity within a PA. The law has never been amended to create legal room for PA co-management activities. Some of the required bylaws and management tools have been prepared for the implementation of co-management in Chunati Wildlife Sanctuary, but many of them are still at drafting stage and under consideration for approval by appropriate authorities. Necessary amendments to the wildlife act have not yet been passed to accommodate provisions for co-management in PAs. Table 2 below shows the status of all these bylaws and management tools.

Table 2: Approval status and formulation processes of bylaws and management tools prepared for the implementation of co-management in Chunati Wildlife Sanctuary

By-laws and management tools	Approval status and legal compliance	Formulation process
Development Project Proforma of Nishorgo Support Project	Approved by the Executive Committee of the National Economic Council and again revised in 2005	Jointly formed by FD and USAID. Local stakeholder participation was absent.
Management plan of Chunati Wildlife Sanctuary 2006	Approved by the government vide memo no. Pabama/Parisha-4/119/Mane:Plan/Nish orgo/2006/296 Dated: January 16, 2007	Effort has been made to consult local stakeholders
Guidelines for the council formation of forest user groups	Draft guideline was prepared mainly by CODEC ¹ and submitted through NSP to FD for necessary approval.	CODEC has prepared this document through consultation with stakeholders
Constitution of Co- management Council of national park/sanctuary/game reserve	Not approved	Draft constitution has been prepared by International Resources Group ² and not yet finalized
Community Patrolling Guideline	Not approved	Draft guideline has been prepared by IRG
Agreement for community patrolling implementation	Not approved	Draft guideline has been prepared by IRG



By-laws and management tools	Approval status and legal compliance	Formulation process
Guidelines for tourist information centers operation (in Bengali and English)	Not approved	Draft constitution has been prepared by IRG but not yet finalized
Operational guidelines for Nishorgo club	Not approved	Draft constitution has been prepared by CODEC but not yet finalized
Elephant ride as an enterprise – issues to be addressed	Not approved	Draft constitution has been prepared by IRG but not yet finalized
Final infrastructure design concept for eco-lodge around Nishorgo protected areas	Not approved	Draft guideline has been prepared by IRG
Government order on the formation of Co-management Council and Committee	Issued by Ministry of Environment and Forest but not yet incorporated into law	Government order
Meeting resolutions of the Co-management Council and Co-management Committee	Not yet brought under the monitoring and evaluation mechanism	Prepared by the members of the Co-management Council and Co-management Committee

¹ The Community Development Center (CODEC) is a Bangladeshi NGO working in CWS to implement NSP activities.

The Ministry of Environment and Forest issued a government order by gazette notification vide memo no. Pabama/parisha-4/Nishorgo-64/(Angsha-4)/112, dated May 15, 2006 (Islam 2006), regarding the formation of eight co-management councils and co-management committees, including their terms of reference for five PAs brought under NSP. The structural formation and functioning of the co-management councils and co-management committees are probably the most visible institution for ensuring local participation in PA management. These are newly developed institutional policy instruments that, according to the government order, allow the formation of these local institutions in compliance with the project proposal of NSP but not in pursuance of any existing law. Therefore, the legal basis of these institutions is still under question.

Each co-management council consists of fifty-five members drawn from different sections of society – from elected parliament members and government officials to

The International Resources Group (IRG) is a U.S. consulting firm responsible for overall implementation of NSP.

local inhabitants in and around the PAs. Co-management councils each have five distinct categories of members: civil society, local administration, local representatives, local NGOs and other government agencies. Similarly, each co-management committee has fifteen to nineteen members with ten distinct categories of members elected from the respective member categories of the co-management council. In the co-management councils, it is required that women make up at least 18-percent of the members and 7-percent of the co-management committee. The structural entity of the councils and committees appears to be effective while the functional entity is still not clear. NSP has recommended that a full-time accountant/administrative officer be appointed by each co-management committee. NSP will provide salary support for one year, but after that it is not clear who will support this position.

Economic framework. USAID seeks to assist in the development and success of comanagement at CWS and the other PAs through its investments in NSP. These investments are limited to the project period. After this period it is uncertain where the flow of financing for co-management will come from. NSP has proposed a landscape development fund to provide long-term community support but the government has not yet approved this. The FD is currently processing a proposal to the government from NSP to provide a small amount of funding (TK 0.23 million) for 10 km of roadside plantations and another project (TK 0.356 million) for road construction. The government's slow approval process and ad hoc investments are causing a bottleneck in the development of a self-sustained benefit sharing mechanism.

Institutional framework. Currently two distinct categories of institutions exist for managing PAs. One is the Forest Department approach, which may be described by its visibility, exclusiveness and practicality. The other is the locally operated comanagement councils, co-management committees, FUGs and CPGs' approach which may be described as normative, inclusive and to some extent invisible. All of the policy instruments required to run the FD are built on a strong legal framework. But the policy instruments that are required to run the co-management approach do not yet exist. Thus far the government has only developed bylaws – such as government orders, guidelines, agreements, and some management tools – to make co-management functional through forming local institutions. The institutions in



place for co-management have a lack of experience as well as insufficient capacity and poor mechanisms for planning, decision-making, data collection, monitoring, assessment, and timely sharing of information. In absence of clear policy instruments, the functional ability of these institutions will be further constrained. NSP recommends that membership roles, responsibility and mechanisms of benefit sharing be documented, but this has not yet been implemented. This situation is constraining co-management implementation.

Criterion 2: Ecosystem health and biodiversity of PA

NSP seeks to manage and restore wildlife habitats in CWS through participation of local stakeholders. The Bangladesh Wildlife (Preservation) (Amendment) Act 1974, however, does not allow local stakeholders to participate in developing and implementing programs to restore habitat or do enrichment plantings in identified gaps of the sanctuary. The policy directives of the National Forest Policy 1994 sought to address biodiversity conservation, but these directives currently only address issues on degraded forest lands and not PAs. According to policy directives, the responsibility of biodiversity conservation lies solely with the FD. Criterion 3: Economic, Social and Cultural Aspects

To address Criterion 3, I have assessed CWS's socio-economic and cultural aspects and the quality of community participation in park management to determine the policy and legal constraints to achieving the objectives of NSP.

Socioeconomic aspects. According to the Statistical Book (1991), the total population of Chunati Wildlife Sanctuary is 21,428, of whom fifty-two percent are men and forty-eight percent are women. These people are directly or indirectly dependent on Chunati Wildlife Sanctuary. There are about seventy settlements (para) in and around the sanctuary. The FD assessed forty-two of these settlements from Chunati Range during preparation of the management plan. Of these settlements, twenty-four are located within the sanctuary, thirteen are located near the boarder, and five are located within five kilometers of the sanctuary. One-third of local inhabitants are unemployed, which results in increased pressure on the forest (FD 2006). NSP currently seeks to implement a number of activities such as identifying and initiating enterprise/business development opportunities and production technologies,

setting up a landscape development fund, organizing micro-credit facilities, and providing training and infrastructural facilities for ecotourism. These activities will provide income generation opportunities for key stakeholders and help develop infrastructure.

Overall, NSP seeks to reduce pressure on the sanctuary and improve the livelihoods of local people as part of a conservation strategy under the co-management approach. All twenty-four settlements located inside the sanctuary are illegal from the perspective of the Forest (Amendment) Act 2000 and the Bangladesh Wildlife (Preservation) (Amendment) Act 1974. According to the existing legal framework, any income generation activities for these settlements will be illegal. It is necessary for the government to amend the existing legal framework before implementing income-generating activities in Chunati Wildlife Sanctuary. In addition, if the government does not revise the National Forest Policy, government policy directives in support of co-management in CWS will be missing.

Cultural aspects. Chunati Wildlife Sanctuary is not particularly rich in archeological and cultural features. The core area of the sanctuary contains human settlements and agricultural fields. Nature and wildlife, betel leaf cultivation, a Muslim shrine, and a small temple are the only resources available for promoting eco-tourism for local people in support of their income generation. Betel leaf cultivation, the shrine and the temple buildings inside the sanctuary are illegal according to existing forest and wildlife law. Even though the National Forest Policy 1994 encourages ecotourism, stating: "Ecotourism, related to forest and wildlife, is recognized as forestry related activity, which will be promoted taking into consideration the carrying capacity of the nature," the cultural landmarks with potential for promoting ecotourism in PAs have largely been ignored.

Community participation. Sustainable co-management in PAs depends on the level of community participation in resource management under enabling policy and legal frameworks. Existing community participation levels in Chunati Wildlife Sanctuary may be characterized by the "participation for material incentives" (Badola et al. 2002). Badola et al. (2002) mentioned that this type of participation might fizzle out once the material incentives stop flowing to the community after the program or project is over. Without clear policy directives and legal framework, the participation level cannot be sustained, and thus it will lose the process of transforming participation into self-mobilization.



I observed six operational issues with respect to community participation and I reached the following conclusions: (1) local skills for resource management are inadequate to adapt to dynamic social and ecological circumstances, (2) local institutions and social organizations are in an infant stage of formation, (3) local rights and tenure regimes are under strict regulations, (4) local benefit sharing mechanisms in the PA are not developed, (5) resources and technologies to support local needs are limited, (6) knowledge of planning, management and evaluation are poor, and (7) funds for supporting a process-oriented flexible project are limited.

Response from members of the Co-management Council and Co-management Committee

The survey showed that most members of the council and committee did not know or understand the policy and legal framework under which they worked. Most members were not aware of the National Forest Policy 1994, the Forestry Sector Master Plan, or the legal provision under the Bangladesh Wildlife (Preservation) (Amendment) Act 1974. Members from the FD (Assistant Conservator of Forest, Range Officer and Beat Officer) were the only people who were aware of and understood these policy and legal frameworks. Council and committee members had some understanding of the NSP project document and the management plan of the sanctuary. The lack of knowledge of council and committee members about the policy and legal frameworks under which they worked suggests a gap in the operational vision of these local institutions. All council and committee members understood that the co-management initiative being implemented in Chunati Wildlife Sanctuary represented a shift from a top-down blueprint approach to a process learning approach for biodiversity conservation and natural resource management in the sanctuary. In the questionnaire, the majority of respondents could identify variables that are associated with co-management such as locus of decision-making, methods and rules, analytical assumptions, management focus, evaluation processes, relationships with people, and outputs under the learning process approach. None of the respondents, however, could clarify the policy and legal constraints upon their choices. Forty percent of respondents believed that the existing policy and legal frameworks were sufficient to deal with the charter of duties of the co-management councils and co-management committees. The other sixty percent of the respondents disagreed with this concept.

Respondents made several comments about the need for local decision-making authority, local ability to revise the master plan at a limited scale, and the power to approve small projects at the local level. These comments indicate recognition of the need for local authority. None of the respondents, however, knew their responsibilities as outlined according to the charter of duties (for council and committee members) mentioned in the government order. Respondents did not know the legal basis on which the decisions they had taken against activities negatively impacting the sanctuary could be implemented. Respondents could not identify the legal basis for their power to resolve conflicts among co-management committee members.

Response from FUG and CPG members

I randomly selected six members of a FUG and interviewed them using open-ended questionnaires. Half of the respondents were men and half were women, and they ranged in age between 18 to 42 years. Survey data revealed that the academic background of the respondents ranged from class three in primary school to class eight in secondary school. Respondents' land holdings ranged from homesteads to homestead and agricultural land of 0.4 to 0.6 acres and their occupations included cultivators, owners of grocery and teashops, and various forms of self-employment. Respondents had only participated as FUG members for one to two years and within this period they had all experienced increases in their livelihood assets (human capital, natural capital, physical capital, financial capital and social capital). Male respondents had not participated in any other institutions or NGOs, while all female respondents were members of different NGOs.

Bangladesh has been experiencing success stories of women's participation in NGO programs. This trend and the findings of this study suggest that women are gaining greater experience working with NGO activities and micro-credit programs. Female respondents attended training courses on poultry, tailoring, and improved stove preparation, enabling them to become more productive and self-employed and contribute to their household subsistence.

All the respondents have varying degrees of access to local resources such as forestland, water, livestock grazing and forest resources, but their dependence on these resources differs. Interviewees suggested that NSP should respond to needs for



micro-financing, shop renovations, investments in madrashas (Islamic schools) and schools, fruit tree farming, poultry, fish culture, apiculture, machines for tailoring shop, tube wells for drinking water, small culverts, and vocational training. All these local needs and aspirations of the FUG members should be reflected in the national policy directives.

I assessed six dimensions of social capital (groups and networks, trust and solidarity, collective action and cooperation, information and communication, social cohesion and inclusion, and empowerment and political action). I found that the FUG's activities had resulted in increases in all six dimensions of social capital among its members. None of the respondents were aware of the policy and legal documents that constrained NSP's ability to affect the changes they desired in access to different types of social capital.

I determined the vulnerability context of the respondents based on their seasonal pattern of activities and records of severe crisis faced by the interviewees during last ten years. Each of the respondents had faced a crisis at least once during the last ten years. Micro-financing helped them to overcome these situations. The comanagement initiative provides provisions for micro-credit and hence helps to improve the living conditions in the sanctuary. Most resource managers considered lack of secure land tenure to be the most important constraint under existing law. The majority of respondents desired clearer land ownership rights. All of the respondents also suggested raising funds for addressing the lean season and assisting during vulnerable situations, similar to those that they have faced in the past.

From the CPG I randomly selected ten members and interviewed them. I observed that the socio-economic conditions of CPG members are inferior to that of FUG members. Landlessness, large families, and subsistence livelihoods characterize CPG households. My results suggest that CPG activities are providing a slight increase in the five types of livelihood assets (human capital, natural capital, physical capital, financial capital and social capital) mentioned for FUG members. CPG members are more vulnerable than FUG members, but their local needs and aspirations are the same. I assessed the different dimensions of social capital and observed increasing trends among all six types. The management plan of Chunati Wildlife Sanctuary can be used to accommodate all these local needs and aspirations of CPG members.

I also participated in the Co-management Council meeting held on April 21, 2007 at Chunati Union Parishad, Chunati. The resolution of the 6th Co-management Council meeting was read and approved by the members present. The Range Officer of CWS presented the annual report for the period from August 24, 2005 to April 21, 2007. During the meeting, I interacted with the council and committee members and found that most of the members are neither aware of existing National Forest Policy and legal framework nor acting on long-term vision. Thus, there exists a significant gap between the policy makers and the local actors in terms of decision-making.

Discussion

The Forestry Sector Master Plan was prepared as part of a long-term strategy to manage and develop forests for environmental stability and economic and social development in the country. To meet these objectives, policy issues were identified, forest related aspirations of the people were studied by an expert hired as a consultant, and a detailed National Forest Policy was promulgated in October 1994. The master plan suggested institutional reforms that sought to broaden people's participation in forest management (see Box 1). The master plan provides strong support for biodiversity conservation and people's participation to prevent illegal occupation of forests, illegal tree felling and hunting of wild animals. National parks, wildlife sanctuaries and game reserves are considered to be the priority PAs. In addition, the policy directives to encourage equity may be relevant to the comanagement approach.

Box 1: Forest Sector Master Plan's support for people's participation

Forestry activities are inseparable from local people's basic needs. People must benefit more from development and in a more equitable fashion requiring:

- Significant re-ordering of priorities through institutional change and a strong focus on effective local public involvement in resource planning decisions, activities and management
- 2. Introduction of community based resource management programs primarily controlled by and benefiting the resident population
- 3. Active involvement of positive, effective NGO groups in local development
- Implementation of reforestation programs with encouragement and assistance on both public and private lands

Source: Forestry Sector Master Plan (1995-2015)



The Forestry Sector Master Plan provides a strong basis for a people-oriented strategy that seeks to support rational land uses based on existing land productivity, manage the environment to preserve existing values, conserve plant and animal varieties, and provide maximum benefits to local people who are dependent on forest resources. Both the Forestry Sector Master Plan and the National Forest Policy 1994 emphasize the concept of people's participation in forestry activities. Following this directive, the Forest Act was amended in 2000 and a new social forestry rule was prepared in 2004. Under this policy perspective, the Forestry Wing was established in the department during the same period. Despite all of this, a policy directive for co-management of PAs is still missing.

According to official records, it is clear that the policy formulation was carried out under a top-down approach having minimum local consultation. As such, local stakeholders could not 'own' this policy. Existing policy processes in the forestry sector are characterized by a distinct policy formulation phase but with poor implementation, monitoring and evaluation phases.

According to Section 2 of the Bangladesh Wildlife (Preservation) (Amendment) Act 1974, "wildlife sanctuary" means an area closed to hunting, shooting or trapping of wild animals. In Article 23 the government describes a wildlife sanctuary to be an undisturbed breeding ground primarily for the protection of wildlife but inclusive of all natural resources, such as vegetation, soil and water. By declaring an area as a wildlife sanctuary, the government has imposed the following restrictions in Section 23 of the law:

No person shall -

- (1) Enter or reside in any wildlife sanctuary;
- (2) Cultivate any land in a wildlife sanctuary;
- (3) Damage or destroy any vegetation in any wildlife sanctuary or within one mile from the boundaries of a wild life sanctuary;
- (4) Hunt, kill or capture any wild animal in any wildlife sanctuary;
- (5) Introduce any exotic species of animal into a wildlife sanctuary;
- Introduce any domestic animal or allow any domestic animal to stray into a wildlife sanctuary;
- (7) Cause any fires in a wildlife sanctuary;
- (8) Pollute water flowing in or through a wildlife sanctuary.

The Bangladesh Wildlife (Preservation) (Amendment) Act 1974 further stipulates that:

If a person contravenes or attempts to contravene the provision of Article 23, he or she shall be punished with imprisonment which may, subject to the minimum of six months, extend to one year and also include a fine which may, subject to the minimum of Taka five hundred, extend to Taka one thousand, and his or her hunting license, gun license and shooting permit shall be cancelled. The equipment used in the commission of the offence and the animal meats or trophies found in his or her possession shall be confiscated. (GoB 1974)

Until there is a revision of current policies, co-management in PAs cannot be legitimately introduced and enabling conditions for sustainable co-management in PAs can not be ensured. There are other policy instruments that could be effectively utilized, provided there is a clear national forest policy directive and legal framework. Past experience revealed that more than ten years were required to bring participatory social forestry under a legal framework after the declaration of the policy directive. A similar duration of time might pass if immediate action is not taken by project authorities for the revision of policy and amendments of laws. Indeed, this is one of the main objectives of NSP. Delay in achieving these objectives may jeopardize the overall plan of the project and thus hamper the sustainability of co-management in PAs.

The FD has developed a number of bylaws and management tools – such as government orders, management plans, the NSP Development Project proforma, forest user group guidelines, meeting resolutions, and agreements in support of implementing NSP. But many of these are still in the drafting stage and under consideration for approval by the appropriate authorities. If there is any defiance towards the bylaws and management tools, taking the necessary measures will be difficult due to the non-existence of a clear legal framework. Conflict management is an integral part of co-management and it will be difficult to apply this approach (negotiation, mediation and arbitration) without the existence of a legal framework.

The participation of local communities is a very important issue in co-management of PAs. Policy directives and legal frameworks need to be oriented to ensure improved participation – including function participation, interactive participation and self-mobilization of local needs, aspirations and overall livelihood strategies.



Conclusion

This case study reveals that existing National Forest Policy directives and legal frameworks are constrained in achieving the objectives of co-management in PAs. This is because of the absence of provisions enabling co-management in the policy directives and strict measures for the exclusion of stakeholder participation in PA management, especially for the sanctuary management. NSP has developed bylaws and management tools – some of which are approved and others that are undergoing the approval processes. As part of NSP, the Ministry of Environment and Forest has also issued an important government order to form the Co-management Council and Co-management Committee. In absence of this project there would be no legal basis for the existence of these local institutions.

The majority of members of the Co-management Council and Co-management Committee are not aware of the National Forest Policy and Forestry Sector Master Plan. They know some of the legal provisions of the forest act but most of them are not aware of the Bangladesh Wildlife (Preservation) (Amendment) Act 1974. This reveals that there is ignorance amongst local decision-making actors of the national policy directive and legal provisions, indicating a major gap in understanding of the government's vision. FUG and CPG members are actively responding to the project activities but not capable of defining the legal constraints that prevent them from achieving their aspiration and meeting local needs.

Participation of local stakeholders was minimal in the preparation of the National Forest Policy 1994. With local participation, the FD needs to take immediate measures to revise the National Forest Policy 1994 to give clear policy directives to incorporate the concept of co-management into PAs and develop policy ownership. At the same time, it is necessary to amend the Bangladesh Wildlife (Preservation) (Amendment) Act 1974 in order to bring the co-management concept within the legal framework. As a result of such changes, other policy instruments could effectively be utilized in the successful implementation of co-management initiatives in Bangladesh. If these legal changes were made, local institutions for co-management – such as the CM Councils, CM Committees, FUGs, and CPGs – would be better able to define their roles and responsibilities and arrange local benefit sharing mechanisms to sustain the program on a clear policy directive and

strong legal basis. This would help ensure the sustainability of co-management initiatives in PA management in Bangladesh. Therefore, NSP should give priority to undertaking necessary actions to prepare appropriate policies and constituencies, which are required in order to achieve other objectives of the project.

Acknowledgements

This case study was carried out under the East-West Center/Nishorgo Support Project Applied Research Fellowship Program, funded by USAID. I am highly indebted to the Forest Department for giving me the opportunity to work on and complete this case study. I am particularly thankful to Mr. Ishtiaq Uddin Ahmad (Conservator of Forests & National Project Director, Nishorgo Support Project), Mr. Anwar Hossain (Assistant Chief Conservator of Forests, Development Planning Unit, Forest Department), and Mr. Philip J. DeCosse (Chief of Party, International Resource Group) for encouraging me to carry out the case study. I wish to record my deep gratitude and thanks to Dr. Jefferson Fox (Principle Course Coordinator and Senior Fellow, Environmental Studies, East-West Center), Ms. Shimona Quazi (Consultant, Nishorgo Support Project) and Mr. Bryan R. Bushley (Degree Fellow 2005-2009, East-West Center Education Program) for supervising the case study, going through the manuscript and giving valuable suggestions to improve the quality of the paper. I am thankful to Mr. Goutom (Program Coordinator), Mr. Md. Hanif Khan (Side Coordinator), and Field Investigators from CODEC who gave necessary support during the fieldwork at Chunati. I am thankful to the Beat Officer and Forest Department staff for their cordial support in the field. I am also grateful to all respondents from the Co-management Council, Comanagement Committee, forest user groups and community patrolling groups for their sincere responses and valuable opinions during interviews.



References

- Badola, R, AK Bhardwaj, BK Mishra, and BMS Rathore. 2002. *Eco-development planning for biodiversity conservation: A guideline*. Wildlife Institute of India: Dehradun.
- Choudhury, JK. 2002. Bangladesh country paper on national forest policy review. Forest Department, Ministry of Environment and Forest, Government of the People's Republic of Bangladesh: Dhaka.
- Chowdhury, DK. 2003. *The process of policy and strategy formulation*. Working Paper WP020, Program Development Office for Integrated Coastal Zone Management Plan (PDO-ICZMP): Dhaka, Bangladesh.
- FD. 2005. Nishorgo Support Project Development Project Proposal. Ministry of Environment and Forest, Government of the People's Republic of Bangladesh: Dhaka.
- FD. 2006. Management plans for Chunati Wildlife Sanctuary. Forest Department, Ministry of Environment and Forest, Bangladesh.
- GoB. 1974. The Bangladesh Wildlife (Preservation) (Amendment) Act, 1974.
 Ministry of Law and Parliamentary Affairs, Government of the People's Republic of Bangladesh: Dhaka.
- Islam, T. 2006. Government Order on the Formation of the Co-management Council and Co-management Committee. The Bangladesh Gazette, No. 32, August 10, 2006: Dhaka.
- ITTO. 1998 Criteria and indicators for sustainable management of natural tropical forests.

 ITTO Policy Development Series No. 7. International Tropical Timber Organization: Yakohama, Japan.
- IUCN. 2003. WPC Recommendation 25: Co-management in protected areas. World Park Congress 2003, IUCN the World Conservation Union: Durban.
- Messer, N and P Townsley. 2003. Local institutions and livelihoods: Guidelines for analysis. Rural Development Division, Food and Agriculture Organization of the United Nations: Rome.
- Mollah, AR, MM Rahaman, and MS Rahman. 2004. Site-level field appraisal for protected area co-management: Chunati Wildlife Sanctuary. Nature Conservation Management (NACOM), International Resource Group, Bangladesh: Dhaka.

- Nilsson, S. 2003. A generic framework for policy reforms in the forest sector. International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria: Schlossplatz. URL: http://www.iiasa.ac.at/Research/FOR/instframe.html?sb=6. [Accessed online April 2007]
- Pimbert, MP, and JN Pretty. 1995. Parks, peoples and professionals: Putting 'participation' into protected area management. Discussion paper no. 57. United Nations Research Institute for Social Development: Geneva.
- Sharma, R, P DeCosse, M Roy, M Khan and A Mazumder. Undated. Comanagement of protected areas in South Asia with special reference to Bangladesh. Nishorgo Support Project: Dhaka.
- Singh, N and T Vangile. 1995. Empowerment: Towards sustainable development. Fernwood Publishing: Halifax.
- Svarstad, H, K Daugstad, OI Vistad and I Guldvlk. 2006. New protected areas in Norway: Local participation without gender equality. *Mountain Research and Development* 26(1): 48-54.