
Attitudes towards Co-management: Is Satchari National Park a Suitable Model for Bhawal National Park?

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Abstract

The forests of South Asia serve as common pool resources for local communities to meet their livelihood needs. Colonial rulers established state property rights that weakened community-based forest use and management. Protected areas (PAs) in Bangladesh are managed by the Forest Department (FD) according to Bangladesh Wildlife (Preservation) (Amendment) Order 1974, with no legal scope for community participation in their management and conservation. However, over time co-management practices have evolved in many South Asian PAs and local communities have initiated collective efforts to stop the degradation of forest ecosystems. Donor-funded projects have supported such collaborative approaches, and a number of co-management initiatives have shown success in countries like India and Nepal. The Nishorgo Network platform and the Integrated Protected Area Co-management (IPAC) project have promoted such collaborative management approaches in Bangladesh with the involvement of diverse stakeholders.

This study was carried out in Satchari National Park, in northeastern Bangladesh, where co-management has been practiced since 2005, and in Bhawal National Park, which does not have a co-management initiative yet. Focus group discussions and key informant interviews with key stakeholders involved in co-management suggest that there are several issues regarding sustainable, effective co-management: The sustainability of co-management through policy supports and financing has yet to be ensured; co-management committees (CMCs) have yet to be developed into institutions for promoting conservation, and ensuring representation from various stakeholders is still a problem; collaboration between the FD and IPAC is minimal; community patrolling groups lack support for alternative income-generating activities (AIGAs); and existing project support for AIGAs is not sufficient or sustainable. The future success and sustainability of co-management of PAs in Bangladesh depends on successfully addressing these issues through gainful partnerships with key stakeholders. Considering the distinct overall situation of each PA, the modality of co-management should be site-specific rather than generalized. With respect to a future co-management project at BNP, the existing government order that establishes CMCs is not suitable. Instead, a village conservation forum model that includes the Forest Department and local people is more suitable for co-management at BNP. Second, it is imperative that policy formulation at BNP be bottom up rather than top down, with input from field-level experience. Third, more policy support will be needed for

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CMCs to be sustainable at BNP, including provisions to keep 50 percent of the entry fees at the PA site; a revision of national forest policies to accommodate co-management; increased support for CPGs; and increased support for AIGAs, which should go to groups rather than individuals.

Introduction

Over the last decade, the conservation of protected areas has undergone a paradigm shift as resource managers switched from focusing on restricting human involvement towards encouraging the involvement of local people in the management of these areas (Borrini-Feyerabend 1996, 1997; Kiss 1990). In both developed and developing countries, incorporating local participation is now seen as an essential component of successful conservation initiatives.

Co-management, “a situation in which two or more social actors negotiate, define and guarantee among 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.* 2007), has been recently adopted for some protected areas (PAs) in Bangladesh. Prior to 2004, the Forest Department (FD) had been responsible for the management of forest resources, using scientific principles. Under this paradigm, there was a prominent trend of resource depletion, in large part caused by the exclusion of local users from resource management. Government officials, development partners (donors), and scientific communities advocated for a shift in management from a strict protection focus to a multi-stakeholder management regime. In 2004, the Government of Bangladesh initiated forest co-management in five PAs in Bangladesh through the Nishorgo Support Project (NSP), with funding from the United States Agency for International Development (USAID). Upon termination of the NSP in 2009, the Government of Bangladesh initiated another USAID-funded initiative, the Integrated Protected Area Co-management (IPAC) project. Under IPAC, co-management expanded to 18 PAs (IPAC 2011).

Since the NSP began, many lessons have been learned from the co-management of protected areas in Bangladesh that have implications for the scaling up of this approach to other PAs. Currently co-management is implemented in a similar way across different PAs according to government orders published in the Bangladesh Gazette. In Satchari National Park (SNP), co-management was initiated under the NSP and has been continued under IPAC. Considering the similarities between Bhawal National Park (BNP) and SNP that do not exist in other PAs in Bangladesh in terms of land cover, encroachment, and pressures from ethnic communities, political and elite groups, and visitors I determined that co-management at SNP could potentially provide a model for co-management at BNP.

Thus, the purpose of this study is to determine whether the co-management model currently used for PAs in Bangladesh is suitable for Bhawal National Park, drawing on the experience of SNP. Because the Forest Department is responsible for the overall management of PAs, and because policy makers play significant roles in the formulation of new policy, this study aims to inform these decision makers about effective strategies for co-management.

Background

Protected areas in Bangladesh cover some 272,490.49 hectares, or about two percent of the country's total area. There are 17 national parks and 17 wildlife sanctuaries (FD 2012). Bangladesh's national parks can be defined as relatively large areas of natural beauty where the flora and fauna are protected and preserved for the enjoyment and education of the public. Himchari National Park of Cox's Bazar was declared as the first national park in Bangladesh in 1980 in order to conserve the biodiversity of that area. All protected areas, including national parks, are managed by the corresponding Forest Divisions at the district or sub-district level, which are under the supervision of the Forest Directorate of the Ministry of Environment and Forests (MoEF). Bhawal National Park in Gazipur District was established to preserve an important ecosystem and to create opportunities for recreation, education, and research. BNP is noted for its coppiced sal (*Shorea robusta*) forests. It is located about 40 kilometers north of Dhaka city and is situated along the Dhaka-Mymensingh Highway (between approximately 23° 55' to 24° 00' north latitude and 90° 20' to 90° 25' east longitude). The park offers a serene reprieve from the bustle of the city for Dhaka's residents, as well as a taste of the vast sal forests that once ran nearly uninterrupted from Dhaka to Mymensingh in northern Bangladesh.

The land that now comprises Bhawal National Park was formerly the private hunting grounds of the Bhawal king. In 1950, this forest area was nationalized and put under the jurisdiction of the Forest Department in order to improve its management. The area comprising Bhawal National Park covers approximately 5,022 hectares (FD 2002). It was declared a protected area through the Bangladesh Wildlife (Preservation) Order of 1973, which was subsequently amended to become the Bangladesh Wildlife (Preservation) (Amendment) Act of 1974 (GoB 1974). Bhawal National Park was declared on May 11, 1982 (as per Gazette Notification Number II/For-66/88/318 dt.11.5.1982), and includes eight *mouzas* (smallest unit of land according to the settlement department of Bangladesh) of Gazipur District.

Bhawal National Park was managed under the Dhaka Forest Division until January 2008, when it was handed over to the Wildlife Management and Nature

Conservation Division of Dhaka. Overall responsibility for the park is assigned to the Divisional Forest Officer (DFO), while one Assistant Conservator of Forests (ACF) is designated as the officer in charge of the park.

BNP has some unique features compared to other protected areas of the country, in terms of its (1) proximity to urban areas; (2) encroachment by diverse populations; (3) the prevalence of private land within its boundaries; and (4) pressures from rapid industrialization. These differences are discussed in more detail below. Most national parks in Bangladesh are situated far from major urban centers. BNP is the only one that is located close to the capital city of Dhaka. This proximity renders it vulnerable to a number of influences that most other parks do not face. In particular, while the management of most national parks is influenced by the political priorities and affiliations of local leaders and elites, national political parties and leaders also influence BNP, with strong connections to local leaders and economic interests. These national influences frequently interfere in the management activities of the park.

In addition, compared to other national parks, the local population living in and around BNP is highly heterogeneous with diverse backgrounds and occupations, including a combination of long-standing local residents, recent settlers, and non-permanent residents from different parts of the country who have migrated from other rural and urban areas and have settled in the buffer zone. Furthermore, there are different ethnic communities, such as the Kuch, who live within the park boundaries.

One of the impacts of BNP's diverse population and its proximity to Dhaka is the pressure for private land for agriculture within the park (NSP 2005). BNP is the only protected area in the country with private land inside its boundaries (see Figure 1). Specifically, within the forest there are pockets of private land known as *baid* lands (lowland areas where paddy agriculture is practiced). There are agricultural lands within other PAs, but the ownership of those lands is vested in the government through the FD. In BNP, the FD has no authority over the management of the private lands.

Another consequence of BNP's proximity to the urban area of Dhaka, as well as its incorporation of private land, is the presence of a large number of industries located in and around the park. In fact, it is the only national park in Bangladesh with industries inside the core area of the park, where a denim and a spinning mill are currently operating. In addition, there are more than 150 industries in the buffer zone and the areas immediately surrounding the park, with thousands of workers from these industries residing in the buffer zone area.

Bhawal National Park contains two forest ranges: the National Park Range and the Bhawal Range. The National Park Range contains three beats (Park, Baupara, and Bankharia), while the Bhawal Range has four beats (Rajendrapur West, Bishawakuribari, Baroipara, and Bhabanipur). For management purposes, BNP is divided into two zones a core area and a buffer zone area. The core zone is the area where extensive protection measures are taken. Specific economic activities, such as the setup of industries, the extraction of all sorts of forest products, and the planting of exotic species, are prohibited. However, all of the above activities are allowed in the buffer zone area. Only the Park Beat is designated as the core zone and the rest of the beats are located in the buffer zone.

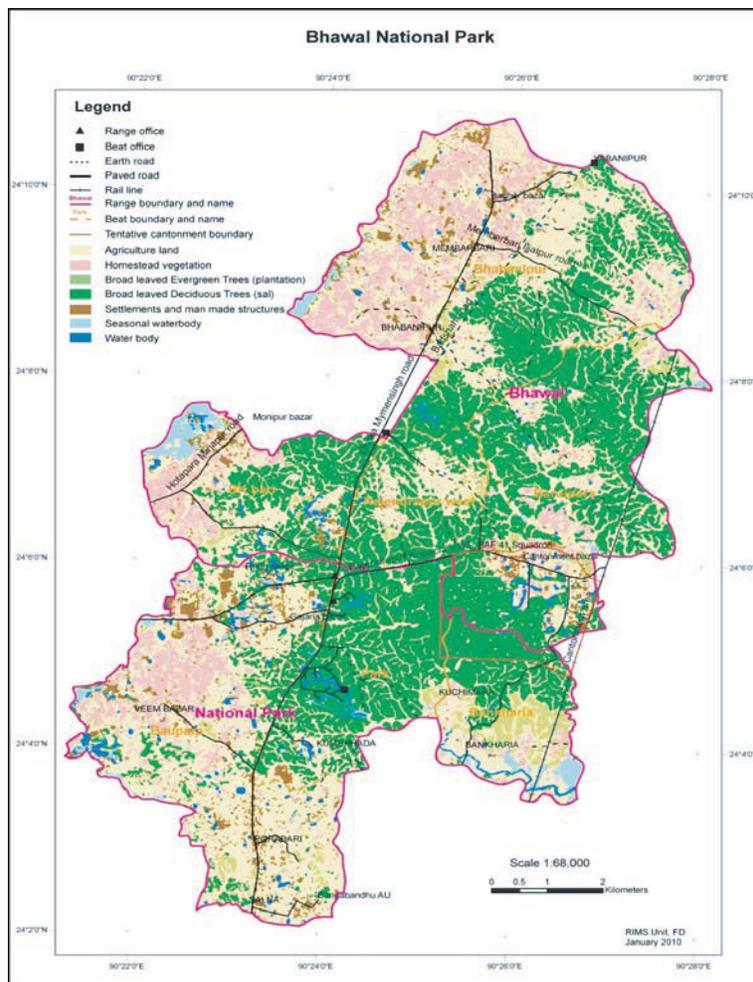


Figure 1: Map of Bhawal National Park (Source IPAC).

A large number of visitors come to BNP during the winter, mainly to enjoy picnics and observe nature. The Government of Bangladesh earns considerable revenue from the park. In 2010, gate receipts totaled BDT 8,810,000 (USD 124,000) from about 10,000,000 visitors, an amount that nearly doubled in 2011 to BDT 15,150,000 (USD 214,000). Visitors walking through the park often disturb wildlife because they are not restricted to footpaths and designated areas. They go everywhere, including sensitive wildlife areas. In fact, there are too many visitors, more than the park can sustain.

Extensive fuelwood collection, a major and very visible activity in Bhawal National Park, is another practice that poses a threat to forest biodiversity. While this activity occurs year round, extraction is most intense during the dry season. Fuelwood is collected for both household consumption and commercial purposes. Most of the collectors are adults, both male and female, and adolescent boys. Most collectors are poor and supplement their income by selling fuelwood.

Encroachment is one of the main reasons for forest habitat degradation. This occurs through the expansion of agricultural lands, the development of new settlements, and the establishment of industries, such as garment manufacturers, spinning mills, and dyeing, pharmaceutical, and poultry feed industries. Almost 70 percent of the forest habitat has been destroyed due to such practices over the last four to five decades. As mentioned above, there are extensive small pockets of private land inside the national park. The most critical issue arising from this occurs when private landowners sell their plots to industrialists who then establish industries. As a result, conflicts arise between FD officials and local people over land use, particularly with owners of disputed lands.

Ground fires are a common phenomenon in Bhawal National Park as well. These are usually set by local people to facilitate the collection of fuelwood. Due to ignorance about the conservation of forest resources, people employ such practices without thinking of their short- and long-term detrimental effects. Fires destroy flora, kill subsoil insects and other fauna, and disrupt the balance of the ecosystem. Many medicinal herbs and shrubs have all but disappeared due to such practices. Attempts to increase forest biomass through timber tree plantations, often with exotic monocultures, were carried out by the FD through the planting of fast-growing trees of short rotation. They also planted bamboo and cane species as undergrowth. Because encroachment is a major problem, fast-growing species were selected to cover the area, and thereby resolve the encroachment problem. However, these reforestation efforts pose their own threat to the diversity of both plants and animals in the park.

Different resource users also collect various other resources from Bhawal National Park. People living in the villages adjacent to the forest harvest vegetables and fruits from the forest. They mainly collect these fruits for their own consumption; in



addition, local people sometimes hunt jungle fowl and wild boar for household consumption.

By contrast, Satchari National Park (SNP) stands on the old Dhaka-Sylhet highway about 130 kilometers northeast of Dhaka, between Teliapara and Srimongal, in northeastern Bangladesh, near the border with India. It is in the Paikpara Union of Chunarughat Upazila in the district of Habigonj. The forest is located within the Satchari Wildlife Range under the jurisdiction of the Wildlife Management and Nature Conservation Division office in Maulvibazar. It is divided into two forest beats: Satchari and Telmachara.

The Satchari Reserve Forest covers an area of about 1,760 hectares (IPAC 2009) and is governed by the Forest Act 1927 and its subsequent amendments. In 2005, SNP was declared under the Wildlife (Preservation) (Amendment) Act 1974 to preserve the remaining 243 hectares of natural hill forests of the Raghunandan Hill Reserve Forest. The forest area is undulating, with slopes and *tilla* (hillocks), ranging from 10 to 50 meters. It is drained by a number of small, sandy-bedded streams. These streams dry out at the end of the rainy season in October and November and are subject to intensive commercial harvesting of sand during this time.

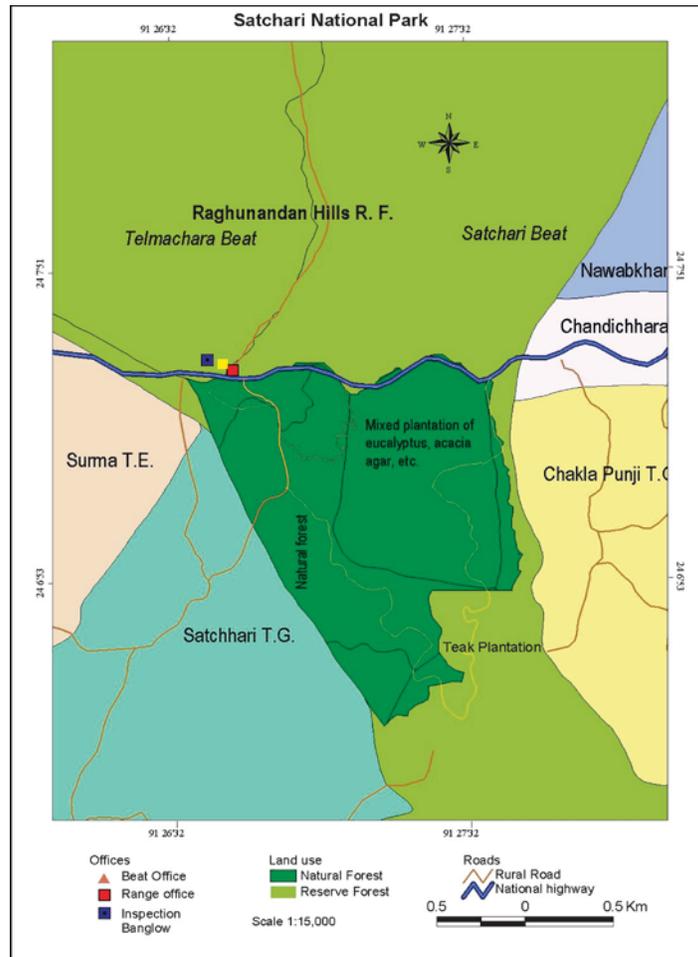


Figure 2: Map of Satchari National Park (Source NSP).

Although there is no private land within the park's core zone like in BNP, SNP is faced with the problem of illicit harvesting of forest products. Members of the Tripura ethnic group live in and around SNP and are engaged in lemon cultivation inside the park to support their livelihoods. The Bangladesh-India border divides the traditional lands of the Tripura. Those living on the Bangladesh side have retained their connection with communities living in India, and through these connections they are involved in smuggling small amounts of timber and other forest products (but mainly deal in other non-forest products such as oil and garments). Though small in scale, these activities affect the wildlife habitat, especially for breeding purposes. Such influences are not present in BNP, since it is not near any international borders. Moreover the trees found in BNP are not as commercially valuable as those found in SNP.

Methodology

This study relied on a combination of primary and secondary data and various qualitative research methods. First, I reviewed the experiences of co-management of natural resources in the context of developing countries through journal publications and gray documents like project reports. To get further background on Bangladesh, I studied reports of the Nishorgo Support Project and Integrated Protected Area Co-management project.

Next, I employed qualitative methods, including focus group discussions (FGD) and key informant (KI) interviews, to compare the characteristics and management of BNP and SNP in order to derive lessons for the future management of BNP. I used a structured checklist (Appendix I) to conduct FGDs with FD staff members at both parks and with people associated with the co-management committees (CMCs) and community patrolling groups (CPGs) at SNP, as they are key stakeholders who play significant roles in PA management.

To obtain additional information, and in some cases to clarify and expand upon queries raised by the FGDs, I interviewed key individuals who are concerned with the parks, using a pre-defined checklist (Appendix II). Selected key informants included the IPAC Chief of Party, the IPAC Project Director, the FD Wildlife Circle Conservator, the Chief Executive of the Aaranyak Foundation, the site coordinator from each park, and a range officer at each site.

I selected BNP as an indirect site under the IPAC project because there is a plan to launch co-management there in the near future. Because BNP has unique features, as described above, the modality of co-management needs to be chosen to maximize the opportunities for success and sustainability. As it is currently implemented, the modality of co-management is identical for all PAs in Bangladesh. SNP is an ideal site to observe the strengths and weaknesses of co-management, and to assess the appropriateness of this model for BNP. I am currently working as an Assistant Conservator of Forests (ACF) as the officer in charge of BNP, so I have a vested interest in this research. I visited SNP on October 21–22, 2011, as a researcher, to explore firsthand the implementation and practice of co-management.

The co-management committee is an executive body with representation from different stakeholders who are interested in the use of resources in and/or near a PA. I identified key CMC representatives, especially those who had a direct role in PA management, and invited them to be participants in the FGDs. Officials who played a significant role in policy formulation and implementation of co-management, from both donor and governmental perspectives, were the key informants. Through this comparative, multi-method approach, this study strives to illustrate the strengths and weaknesses of co-management as practiced in SNP, while also assessing the particularities of BNP, and combining these data to develop site-specific lessons and recommendations for co-management at BNP.

Results

Focus Group Discussion with Community Patrolling Group in SNP

I conducted a focus group discussion with members of a community patrolling group in SNP. There is only one such group in the area, which has 20 members, all of whom are forest villagers. Ten members were present during the discussion. Two of the CPG members are also members of the CMC; one CPG member had received an alternative income-generating activity (AIGA) loan from the CMC to open a small grocery store. FG discussants reported that they were involved in FD activities prior to co-management and that they had always had good relations with the FD, as they are all forest villagers.

CPG members regularly patrol the park, earning BDT 50 per day under NSP. Since the inception of IPAC, however, they report that their patrolling duties have increased but they are not receiving any cash incentives. CPG members have mixed reactions to co-management. They state that co-management has not resulted in any remarkable change in forest conditions or in their livelihoods. Participants commented that, in some ways, their livelihoods were better prior to co-management when they could still raise grains and fruits in the park through *jhum* (shifting cultivation), a practice which they have now stopped. However, they remarked that their lives are better now in other ways, because they have good relations with the FD and the co-management institutions.

All CPG members received AIGA loans of BDT 5,600 (USD 65) for livelihood development from the Aaranyak Foundation, a foundation that received its core funding in a grant from USAID. AIGA loans from the Aaranyak Foundation are different than those from the CDC. FG participants reported that they were not interested in the interest-free loans from the Aaranyak Foundation because the loan amount is insufficient for investing in any project that would return an income. The CMCs also allot AIGA loans to selected villagers. FG participants reported a gap between CMC decisions about whom to give AIGA loans to and the interests of people who receive these loans. They suggested that rather than giving loans to individuals, the loans should be allocated to a group of people. All group members would be responsible for the loan but the amount of the loan would be sufficient to invest in a significant project. After one year, the loan amount would be paid back to the CMC and a new group of people would be selected for the loan. FG discussants felt that when AIGA loans were distributed to individuals the amount of the loan was insufficient to be useful, and that CPG members were not properly trained before the disbursement of the loans. CPG members felt that the proper and sustainable utilization of AIGA loans required training and orientation for how to use the loans appropriately.

Focus Group Discussion with a Co-management Committee in SNP

I also conducted a FGD with CMC members in SNP. There are 23 members of the committee (four females and 19 males) who were selected for the CMC, in accordance with rules established by a government order. Fifteen CMC members participated in the FGD. I observed that because the CMC consists of a wide variety of stakeholders with different interests, the opinions of the CMC members that took part in the FGD often differed.

Some members, especially representatives from the CPG, commented that the procedures for selecting non-government CMC members should be changed because there was political interference that led to selecting elite group members. FGD participants reported, for example, that some CMC members sought to give AIGA loans to their own relatives or to those of influential CMC members rather than to people who are directly dependent upon forest resources. Other FGD participants stated that some influential CMC members interfered in the selection of participants for tree reforestation projects in the buffer zone, which had prevented the selection of participants for the last few years. Some FGD participants also stated that some decisions taken during the CMC meetings were not implemented because they failed to get approval from FD officials.

FGD participants stated that CPG members were not receiving any benefits from the CMC and felt that CPG members would not continue with their duties if they did not get cash incentives. While all CPG members received AIGAs from the Aaranyak Foundation and one member received an AIGA from the CMC, they did not consider AIGAs to be compensation for patrol duty. This is partially because the NSP program used to pay cash for this duty. FGD participants felt that co-management faced a critical shortage of funding.

Other FGD members reported that “godfathers” (politically and financially influential people who remain behind the scenes but force the implementation of their desires) are still active in illegal activities in the park. Many people feel the amount of money available through AIGA loans is insufficient to develop income-generating opportunities and hence they are afraid that the AIGA loans will become a burden to pay back.

Focus Group Discussions with FD Staff Members in SNP and BNP

During my study, I conducted FGDs with FD staff members in both SNP and BNP. In the FGD at SNP I met with all officials working in the park including the *mali* (gardener), forest guards, beat officers, range officers, and the Assistant Conservator of Forests. In this section, I discuss these FGD participants’ observations regarding co-management.

CPG members are patrolling less because they are not receiving a cash benefit. FD staff members reported that some CPG members help timber smugglers and sometimes are involved in timber smuggling themselves. FD staff members reported that the CMC prevents them from taking action against CPG members who engage in illicit activities. The local Union Parishad (UP) chairman, for example, is a CMC member who directly prevents FD staff members from taking action against timber smugglers. Similarly, CMC members interfere in the selection of participants for buffer zone tree plantations. FD staff members report that this is why participant selection has not been finalized for the last few years.

FD staff members report that CMC members act as if they believe they should receive incentives from the PA for the time they spend in CMC activities. FD staff members also report that activities of IPAC staff members suggest that they think that the FD manages the PA inefficiently and that they (IPAC) are developing the PA and making it workable. For example, under NSP, FD staff members maintained tree reforestation plots. But presently, IPAC staff members maintain these plots and FD staff members only supervise the work. FD staff members believe that this is because IPAC staff do not trust them to do the work.

According to FD staff members, co-management is a good idea but only if the right people are in key positions to implement the will of co-management. They believe that the lack of such people is why the CMC is not functioning as it should.

In the FGD at BNP, all staff members working in the PA were present. They felt that, while community involvement is necessary for better and more sustainable PAs, co-management should be under the leadership of FD staff members. BNP staff members believe that co-management as it is being currently implemented in different PAs is based on the participation of people who are looking to receive personal benefits from the PA rather than those seeking to improve PA management. Thus, they feel that too much involvement and control by these people could have an adverse impact on the management of BNP.

FD staff members also report that, although CMCs do not exist in BNP, IPAC is already distributing small AIGA grants to local people. FGD members report that IPAC staff members are distributing these grants to people who are not dependent on the forest and are not involved in forest-related activities, and without consulting the FD. FD staff members feel that co-management should be implemented in such a way that the FD plays the key role in facilitating collaboration with community people. Considering the socio-economic conditions in Bangladesh, it is very difficult to handle peoples' expectations, especially the expectations of elite groups. FD staff members feel it would be wiser to base co-management on the involvement of both FD staff members and community people rather than on the participation of all stakeholders.

Key Informant (KI) Interviews

As key informants, I interviewed four people from IPAC and four staff members from the FD who have each played significant roles in PA co-management in SNP. The key informants I interviewed from IPAC stated that co-management ensures participatory management of natural resources. They commented that co-management is effective because it has improved communication and linkages between local communities and government agencies. Co-management also provides additional resources to the FD, leading to the development of CPGs to conserve biologically significant resources. They acknowledged that it is difficult to conserve protected areas without the help of local people.

I also interviewed the Chief Executive of the Aaranyak Foundation, who stated that proper orientation is required for both the FD and community members to introduce a new approach. Presently, people from line agencies such as the Upazila chairman, the Upazila Nirbahi officer, police, and others are represented on the CMC. Line agency staff members usually try to impose their thoughts on the CMC, without making a sincere effort to understand the issues and management needs, which ultimately negatively impacts conservation efforts. Therefore, he felt that the participation of line agency staff members is not optimal, or perhaps not even necessary, for the proper functioning of CMCs. Rather, he felt the involvement of local people was essential for the conservation of natural resources. Since co-management was implemented about seven years ago, however, the involvement of local people has not met his expectations. He also stated that, because the MoEF has not yet declared (through a gazette order) a co-management approach for PAs, key policy instruments are missing.

The key informants I interviewed from IPAC felt that community empowerment was key to effective PA management. To achieve this, they believe it is necessary to further develop the human and institutional capacities of the CMCs. Furthermore, long-term financial support for the CMCs is vital to their sustainability, and to achieve long-term support for the CMCs requires that additional sources of money be identified and tapped. The government treasury is one source but it is cumbersome to access. An alternative source of funding would be to allow PAs to keep the entry fees they collect rather than sending them to the government treasury. These funds could then be used to support community and CMC activities.

Presently a lack of political commitment for the sustainable management of PAs prevails. Political and economic elites interfere in almost all PA activities. If local people have secure use rights to resources in the PA, then they will ensure the sustainable conservation of the PA, but people do not yet seem to feel they have such secure rights.

Co-management is an ideal tool for the conservation of PAs. Over the last seven years it has been developed to some extent but, based on past experience and observations, it may take another five to seven years to become self-sustaining. Support from the government of Bangladesh and their development partners is crucial for the long-term sustainability of co-management.

BNP is a unique site among PAs in Bangladesh. IPAC is providing limited support to BNP for developing a co-management platform, and it is also providing livelihood support for the densely populated neighboring communities. Some IPAC project members have commented that, while NGOs need to be involved in activities like forming groups of local people, co-management at BNP should be based on cooperation between the FD and local community members. In BNP a different model could be implemented where the FD and local communities work together directly to develop a co-management framework, rather than using a blueprint approach applied in other protected areas. If proper attention is not paid to the development of a strong foundation for co-management, the CMCs will face huge challenges to their sustainability when IPAC leaves.

The key informants that I interviewed from the Forest Department believed that the FD has not had sufficient collaborative management initiatives in the past. Under the Forest Resources Management project, for example, nine conservation management plans were developed but communities were not involved in the preparation and implementation stages. NSP introduced the co-management concept for PA conservation in Bangladesh. The FD key informants felt that co-management could be sustained if it were based on a framework of direct community engagement, without the involvement of other agencies, and funded on a regular basis.

Some key informants who work at SNP opined that other members, who are influenced by elite people, elect the CMC chairman a key role and one held by those who often try to impose their views on PA management. Because the CMC chairperson is usually a member of the local elite, it is not possible for the PA authority to ignore decisions that he or she makes. Though democracy ostensibly exists, it does not prevail in practice. Other officials represented on the CMCs do not make significant contributions to PA management instead they play largely symbolic roles.

Key informants from the Forest Department felt that AIGA loans should be based on need and provided to groups, not individuals. Since the amounts are not sufficient to develop profitable AIGAs, it creates problems for loan repayment, leading to illegal activities and creating new problems rather than improving local livelihoods and supporting sustainable PA management. Presently, co-management is almost totally facilitated by IPAC and its subcontractors, and the FD provides minimal leadership. This will affect project sustainability after IPAC leaves. Co-management can be imposed on PAs, but it will neither succeed nor be sustainable if FD officials do not feel that they have ownership of it.



FD key informants claimed that some changes are visible in PAs since the introduction of co-management, including a decrease in illicit felling, positive changes in people's attitudes towards the FD, and improvements in biodiversity. The government of Bangladesh has yet to develop protected area rules that will ensure an enabling legal and policy environment for local people to actively participate in conservation.

Key informants from the FD felt that BNP is a unique site because deforestation is not a key problem, but that degradation and encroachment are major concerns. Furthermore, industrialization is causing pollution and environmental degradation in BNP. A strong CMC could become a voice of the local community to compel industrialists to undertake environmental treatment measures. FD key informants expressed that co-management could be introduced in BNP, but that its model should be different from that practiced in other PAs in Bangladesh. Some key informants, however, commented that co-management is not required in all PAs because it has failed to prove an effective tool for sustainable management in some instances.

Discussion

Community members have long been dependent on protected areas for their livelihoods. From my focus group discussions and key informant interviews, it is evident that villagers feel that co-management imposes restrictions and responsibilities on them, but that they receive few benefits from their participation. In spite of this, community members still want to be involved in PA management in some way. IPAC staff members consider co-management to be superior to traditional top-down methods of PA management because co-management builds linkages and friendly relationships between communities and the FD, which allows for enhanced consultation and collaborative management. FD staff members also appreciated co-management as a more sustainable form of PA management, but they have serious concerns about the way in which it is currently being implemented in Bangladesh.

Regarding participation in co-management, community members indicated that they are represented in decision making in groups like the CMCs, but they feel that their active participation at the grassroots level has not yet been achieved. IPAC respondents feel that all stakeholders have achieved a level of democratic participation, while FD staff members observed that there is minimum involvement of FD staff members because policy makers are imposing everything without any consultation with local officials about the reality in the field. FD officials also recognize that they do not have sufficient staff members to manage PAs without the support of local people.

The livelihoods of community people have been based on collecting timber and non-timber resources from the forests, which have been designated as PAs for a number of years. In order to reduce the dependence of local people on PAs, IPAC has sought to provide AIGAs to community members. The amount of funding available for AIGAs,

however, is insufficient to meet their needs and to wean them from using forest resources. Moreover, the AIGA support that has been given to individuals has frequently not been provided to the right people. Elite members of the CMCs have influenced the selection of recipients for AIGA loans; and respondents from both the FD and the donor community have suggested that, in addition to insufficient funding, AIGA loans would be more useful if they were given to groups rather than to individuals. FD staff members feel that project support should be need-based and given to groups rather than individuals. Moreover, both IPAC and FD staff members feel that the sustainable co-management of PAs requires sufficient and sustainable funding to meet the needs of CPG members and AIGA loans.

My interviews also suggest that a number of different stakeholders are involved in co-management and that these stakeholders have different expectations and opinions of PA management. It is difficult to manage multiple stakeholders as their expectations and opinions differ most of the time. Those involved in co-management naturally desire to receive benefits from the PAs, and people expect to receive rewards from or incentives for participating in co-management. But because of limited resources, it is difficult for all stakeholders to achieve positive benefits from PA management. Moreover, almost all respondents have suggested that politically influential people are interfering in PA administration while maintaining linkages with illegal resource extractors.

Some of the important key informants I interviewed, who are responsible for co-management in SNP, commented that more time is required to make co-management function in a sustainable manner. In SNP, a PA where co-management has been practiced for the past seven years, project activities have failed to develop ideal conditions for sustainable co-management. Adequate and sustainable policies and funding instruments are still missing, and there is a need to build further capacity of both the FD staff and community members.

FD staff members believe that IPAC staff members do not trust them to achieve project goals. They cite tree planting efforts that were previously undertaken by the FD, but that are now maintained by IPAC, as an example of this failure in trust. FD staff members feel that IPAC staff members do not cooperate with them adequately, do not consult with them sufficiently on project activities, and have built CMCs that are not well linked to the FD.

Conclusions

Based on my interviews, I conclude that there are five main issues that need to be considered regarding sustainable and effective co-management: (1) The sustainability of co-management through policy supports and financing has yet to be ensured; (2) CMCs are still politically influenced and have yet to be developed into institutions for

promoting conservation, and ensuring representation from various stakeholders is still a problem; (3) FD and IPAC collaboration is minimal; (4) CPGs, the forest monitors from the communities, are sometimes aligning with illicit tree fellers due to lack of support for AIGAs from the project and the CMCs; and (5) existing project support (AIGAs) at the individual level is not sufficient or sustainable.

Considering these five issues with respect to BNP, the following considerations need to be taken into account when initiating co-management there. First, the existing Government Order that establishes CMCs is not suitable for BNP. Instead, a Village Conservation Forum (VCF) model that includes the Forest Department and local people is more suitable for co-management at BNP. Based on suggestions from key informants and my practical experience in India, I believe that collaborative management functions best when the FD is directly involved with only the community people. Second, both the NSP and IPAC design and implementation phases lacked adequate consultation with local FD officials. Before the onset of these projects, there was minimal consultation with the FD field officials who are the main implementers. That is why many FD officials are not aware of these programs. As a result, a number of problems were observed during the implementation stage. Before the formulation of such programs, it is imperative to have field-level discussions about addressing existing realities. Policy formulation should be bottom up rather than top down, with input from field-level experience. Third, although some progress has been made through government orders for example, 50 percent of the entry fees is now returned to the individual PAs—more policy support is needed for CMCs to be sustainable. These include provisions to keep 50 percent of the entry fees at the PA site (rather than submitting it to the government and having it returned); a revision of national forest policies to accommodate co-management; increased support for CPGs; and increased support for AIGAs and making grants to groups rather than individuals.

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Appendix I

Checklist for FGD at SNP and BNP sites

No.	For SNP	For BNP
1.	How were the interactions between FD and the community prior to co-management? How do stakeholders participate in co-management of the park now?	How do FD staff and different stakeholders interact in the management of the park?
2.	What are the major challenges in conservation of the PAs? How does co-management address these challenges?	What are the major challenges in the conservation of the PAs?
3.	What changes have resulted in the park from the co-management approach? How do FD officials evaluate co-management? How do local stakeholders evaluate co-management?	What are the potential benefits of the co-management approach? What are potential threats that co-management could bring to park management?
4.	How are the local co-management committees (CMCs) formed?	What are the existing informal/formal institutions facilitating/affecting the FD's management of the park?
5.	How do you value the roles of CPGs? How does the CMC manage the CPGs?	What are the existing protection mechanisms in the park? Are there areas where CPGs can provide additional support to improve the effectiveness of FD patrols?
6.	How does the CMC address the livelihood dependence of local forest user groups (FUGs)?	How does the FD address the dependence of local people on park resources?

Appendix II

Key informant interviews

1. What is your experience of protected areas in Bangladesh?
2. Please mention major challenges/threats for conservation of PAs (especially in SNP and BNP)
3. How do you see the existing management of FD for BNP? Please provide your personal judgment.
4. How do you evaluate co-management in SNP based on its potential and field experiences?
5. Do the CMCs reflect the representation of all stakeholders of the Park?
6. What changes has the co-management approach brought in SNP Park?
7. What were the expectations from the CMC and to what extent has it achieved them in the context of SNP, in particular, and other PAs with co-management, in general?
8. What are the major challenges and threats faced by the CMC?
9. Can co-management lead to better PA conservation? If yes, how can it be sustained? If not, what are the reasons behind this?
10. Please share your experience with the CMC formulation and its functioning (open remarks).