

# **A journey towards better governance: status and prospects of collaborative management in protected areas of Bangladesh**

A. Z. M. Manzoor Rashid<sup>1,2</sup>, Sharif Ahmed Mukul<sup>3</sup>, Donna Craig<sup>1</sup>

<sup>1</sup>Environmental Law, School of Law, University of Western Sydney, Australia

<sup>2</sup>Department of Forestry and Environmental Science, School of Agriculture and Mineral Sciences, Shahajalal University of Science and Technology, Sylhet 3114, Bangladesh

<sup>3</sup>Faculty of Life Sciences, Centre for Forests, Landscape and Planning, Copenhagen University, Denmark

## **Abstract**

Establishment of protected areas, in the face of rapid deforestation, forest degradation and climate change is one of the modest efforts to expedite conservation of biodiversity worldwide. Protected area coverage in Bangladesh, however, is amongst one of the lowest in the world, covering nearly 11% of country's total forest area. Due to its' high population density and poor per capita income protected areas of the country also subject to various anthropogenic pressures that made its' management merely challenging. Where Bangladesh is prominent in the world for its' successful social forestry program, the concept of collaborative protected area management is rather new in the country, initiated on 2004 by Bangladesh Forest Department in five pilot protected area sites with financial assistance from the USAID. This unique program initially known as *Nishorgo* is currently geared up through its' second phase (as *IPAC*), is a comprehensive effort to conserve country's declining forests through ensuring access to diverse local stakeholders in parks management decisions, as well as providing opportunities to local people for their economic sustainability which in the long run will help building a better governance mechanism which is the pre-requisite of sustainability. This paper based on empirical evidences from three of the initial pilot sites here elaborated the first hand achievement of co-management program in the areas, with major challenges and future prospects.

**Key-words:** Protected Area, Co-management, Nishorgo, IPAC, Governance

## **Introduction**

Establishment of protected areas (PAs) have long represented a key conservation strategy in the face of rapid deforestation and biodiversity loss worldwide (Ormsby and Kaplin 2005; DeFries et al. 2007). IUCN (1994) defines PAs as 'areas especially dedicated to the protection and maintenance of biological diversity and associated cultural resources, which are managed through legal or other effective means'. Over the last few decades, the number and coverage of PAs has increased dramatically in most parts of the world (McNeely and Scherr 2003; Kaimowitz and Sheil 2007), and currently there are more than 100,000 PA sites worldwide, covering nearly 12% of the land surface (Chape et al. 2003; Scherr et al. 2004). Many developing countries in the tropics, where biodiversity is greatest and where local communities rely on nature for sustaining livelihoods, have also expanded markedly their amount of land under PAs, as an attempt to address growing concerns on conservation (Ghimire 1994; Koziell and Saunders 2001). However, in many cases simply setting aside PAs has failed to achieve the desired conservation goals due to pure ecological focus and poor recognition of local and indigenous people's traditional forest rights and practices (Ormsby and Kaplin 2005; Nepal and Weber 1995). Such exclusion has also led to

conflicts and mistrust between PA managers and local forest user communities, resulting in the failure of meeting management goals of PAs (Borrini-Feyerabend 2002).

Experiencing the consequences, local peoples support and involvement for PA management has been viewed as an important element of enhanced conservation in recent years, especially in developing countries (Wells and McShane 2004; Nagothu 2003). This new intervention, commonly known as co-management in PAs, under the broad canopy of community-based natural resource management (CBNRM), is a major emerging issue for conservation policy in many developing regions that has also been widely promoted by various international conservation agencies (Fisher 2003; Jeanrenaud 2002; Kothari et al. 2000). This strategy enables local peoples to participate in PA management up to a certain extent, and most often offers local communities some direct and indirect benefits related to park management (Nagothu 2003).

Bangladesh, as one of the most densely populated countries in the world, was densely forested until the British colonial period, with about 20% forest cover, and even until 1980 was home to about half the bird species and a quarter of all mammal species of South Asia (Poffenberger 2000). Even though the beginnings of the government's conservation efforts in the country can be traced back to 1966, before independence, very few of the goals were actually met and today the actual forest cover is estimated at 6% of country's total land mass (FAO 2009). At present, the country has 18 PAs (under IUCN PA management categories IV and V) that cover approximately 1.67% of the total land area (Mukul et al. 2008). These figures are among the lowest in the world (WRI 2007), despite country's exceptionally rich biodiversity favored by its' unique geo-climatic conditions (Appanah and Ratnam 1992). At the same time, large numbers of the rural poor are either forest dwellers or forest dependent for their subsistence (Roy and DeCosse 2006). Under such circumstances "Co-management" or "Collaborative management" is indispensable to maintain Bangladesh's vanishing forests and biodiversity through sustaining local livelihoods (Mukul and Quazi 2009).

Though, Bangladesh is one of the prominent country in south Asia for its' successful social forestry program (Zashimuddin 2004), the concept of co-management in PAs is quite new but very timely approach that could better promote the issues of conservation and sustainable local development. In 2002, the Forest Department (FD) developed the program of forest co-management in PAs called the Nishorgo Support Project (NSP), with active support from USAID (United States Agency for International Development). The project ran until 2007 then was re-launched and further extended under the name 'Integrated Protected Area Co-management' (IPAC) from 2009 with broader scope, fields and aims. During the NSP period, five PAs (i.e. Lawachara National Park, Satchari National Park, Rema-Kalenga Wildlife Sanctuary, Chunati Wildlife Sanctuary and Teknaf Game Reserve) were considered as pilot sites to apply the concept of co-management. All the sites are unique in the country for their rich diversity of flora and fauna, as well as also subject to local exploitation. The aim of this paper is to share the experiences of different 'co-management' initiatives from three of these pilot sites and their effectiveness and acceptance to local communities, and finally put some recommendation based on the flaws of these initial initiatives.

### **Organization of the paper**

This paper is based on the field experiences from three (i.e. Satchari National Park, Lawachara National Park and Chunati Wildlife Sanctuary) of the pilot PA sites. Field visits and systematic households' surveys in the study sites were conducted between 2007 and 2010. Several focus group discussion (FGD), and interviews with FD personnel's were also performed to get insight of the overall situation.

The first part of this paper tries to give an overview of the PA systems in Bangladesh, their coverage and efficacy for biodiversity conservation. The next part emphasizes on key lessons from three of the pilot study sites in response to various initiatives to promote co-management and equity in the areas, following by a generalized conclusion on challenges and prospects of PA management in the country.

### **Protected areas and their efficacy for biodiversity conservation in Bangladesh**

Three types of PA were defined under the Bangladesh Wildlife Preservation Act, 1974, with the objective of conserving biodiversity (*in situ*) and the natural environment within various forest types. These include – national parks, wildlife sanctuary and game reserve. The first PAs had been established in the 1960s and 1970s; a second group of PAs were declared in between 1980 and 1986, and a third group since 2000. At present, there are eighteen notified PAs – entailing ten national parks, seven wildlife sanctuaries and one game reserve - under the jurisdiction of the FD (NSP 2006). Other categories of PAs managed by the government include eco-parks, safari parks, ecologically critical areas (ECAs), World Heritage sites, and Ramsar sites. The PAs (IUCN categorized) of the country represents an area of 242,596 ha - covering a tiny proportion of country's total land mass (i.e. 55,598 sq. miles); this is the second lowest per capita area under PAs in any country (Sharma et al. 2005).

Also, if PAs are to be effective in conserving biodiversity, the PA system must be representative of all ecosystem types (Dudley and Parish 2006). Even though, the PAs of Bangladesh represent around 11% of the country's total forest area, they do not effectively represent all ecosystems, and thus include all habitats and species important for conservation. The proportions of each of the three major forest types - hill forests, deciduous *Sal* (*Shorea robusta*) forests and mangrove forests - represented in PAs are 5.2%, 11.2% and 23.3%, respectively (Mukul et al. 2008).

### **The *Nishorgo* protected area co-management initiatives**

Most of the PAs of Bangladesh are part of some reserved forest (RF), and are subject to extensive exploitation by neighboring people for subsistence and income for years. One of the key challenges in these PAs for *Nishorgo* was, therefore, to provide people with alternative income generating (AIG) options to divert them from exploitation of forests and forest products. However, as the effort was limited by resources it was obviously impossible to meet the need of all people who were formerly engaged in forest resource collection. To promote participation in park management and decision making *Nishorgo* formed some co-management committee in each of the pilot sites taking representatives from all stakeholder groups, as well as from the government. There was regular meeting in these sites where members of the committee were informed any progress or initiatives taken in the pilot sites, and had chance to share their views, needs and/or any recommendations for better management of the park. Some key experiences and lessons from three of these sites are briefly described hereafter.

### **Local people's response to different AIG initiatives in Satchari National Park**

Satchari is one of the smallest PA in the country with an area of about 243 ha, but strategically important than many of the other PAs because of its' unique location and biodiversity. Before government ratification as a national park on 2005, the park was part of the Raghunandan Hill Reserved Forest. More than sixteen outside villages and an inside village inhabited by indigenous *Tripura* community had stakes of different levels on the national park. *Nishorgo* apart from its' co-management committees had taken initiatives to create alternative income generating sources in the villages with major stakes, that includes, support for cattle fattening, promotion of local *Tripura* handicrafts, pig rearing, support for aquaculture, vegetable farming, nursery raising, training as eco-tour guide, loans for purchasing of rickshaw etc. Table 1 below shows respondents (N= 101)

dependency on key forest products in Satchari during 2006 and 2007 (Mukul and Quazi 2009). Though these initiatives was limited to a certain number of peoples, but the experience shown that only AIG activities that provided households substantial continuous income, and made them feel closer to local forest governance worked better. In Satchari, for example eco-tour guide, support for nursery and inclusion as forest patrol guard seems more effective than AIG strategy that ensures both conservation and development in the area.

**Table 1.** Respondents collecting forest products from Satchari for sale in 2006 and 2007

Village	Timber*			Firewood			NTFPs		
	January 2006	January 2007	change*	January 2006	January 2007	change*	January 2006	January 2007	change*
Tiprapara (n = 22)	1 (4.55)	0 (0.0)	-1 (4.55)**	6 (27.27)	2 (9.09)	-4 (18.18)	1 (4.55)	0 (0.0)	-1 (4.55)
Ratanpur (n = 16)	8 (50.0)	3 (18.75)	-5 (31.25)	5 (31.25)	4 (25.0)	-1 (6.25)	4 (25.0)	3 (18.75)	-1 (6.25)
Deorgach (n = 32)	6 (18.75)	7 (21.88)	1 (3.13)	3 (9.38)	4 (12.5)	1 (3.13)	2 (6.25)	3 (9.38)	1 (3.13)
Goachnagar (n = 33)	4 (18.18)	1 (3.03)	-3 (9.09)	2 (9.09)	2 (6.06)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
<b>Total</b>	<b>19</b>	<b>11</b>	<b>-8 (42.11)</b>	<b>16</b>	<b>12</b>	<b>-4 (21.05)</b>	<b>7</b>	<b>6</b>	<b>-1 (14.29)</b>

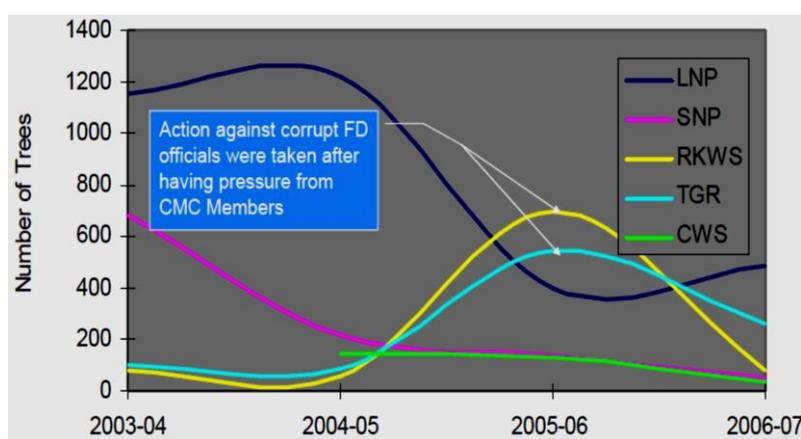
\* values in the parenthesis indicates percentage of the sample collecting forest products from respective villages

\*\*negative values implies positive changes and vise-versa.

\*\*\*percentage change of in respect to total people collecting forest products during 2006

### Working together for conservation in Lawachara National Park

Lawachara is famous for its' rich faunal diversity, particularly for one of the largest population of critically endangered *Hollock gibbons* in south-east Asia. The park is also inhabited by several indigenous communities including *Khasia* and *Tripura*, who enjoyed the usufruct right to use a limited forest area within the park for their traditional betel vine (*Piper betel*) and lemon (*Citrus limon*) cultivation. One of the *Nishorgo* initiatives in the park was, recruiting former illegal loggers in forest patrolling team to protect poaching of valuable timber from the park area. All the participants were paid lump sum remuneration for their protection service, and the effort brought a dramatical change in the area. There was a significant reduction in illegal forest activities within the park. Figure 1 below shows the illegal logging (in terms of no. of tress felled illegally) in Lawachara National Park (blue line) with other *Nishorgo* pilot sites between four different periods. It is clear from the graph that, the number of trees illegally felled during 2003-04 period was about to 1,200 being highest amongst the pilot sites, which fall down to about 400 during 2006-07 period (Mazumder et al. 2007).



**Figure 1.** Illegal tree felling at different *Nishorgo* pilot sites (Source: Mazumder et al. 2007)

## Concluding remarks

From the field experiences as well from the view of key personnel's and respondents it is quite evident that, co-management activities in the pilot PA sites brought gentle but definite change in terms of parks management and households conservation attitudes. Households who were previously plunderers are now active forest protector. There are however still some limitations in the program. To ensure long term sustainability in conservation and better forest governance it is very essential to focus on generous socio-economic upliftment of the communities living on forests, and ensures the equity in benefit sharing. To avoid conflict, and promote traditional livelihoods of the communities there is also need to allow people harvesting certain amount of forest products ensuring ecological sustainability (Mukul et al. 2010).

Government should increase PA coverage in the country for the wellbeing of future generation. They should also ensure financial sustainability for the maintenance of PAs in the country, raise awareness, and could attract international funding through REDD (Reducing Emissions from Deforestation and Forest Degradation) initiatives for conservation and sustainable development.

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