

Preface

The top-down approach of forest governance is nowadays not an appropriate approach of forest management especially where dependency of locals on forest resources is high. This kind of forest management, in greater extent, has failed to achieve the desired goals of forest conservation and revenue generation. This failure of state-governed forest management and the subsequent misery of forest-dependent poor people had knocked the developing governments and development agencies to involve local people in forest governance. During the last three or four decades, this kind of forest governance has undergone several changes and community-based forest management (CBFM) has been established as a means of sustainable forest management particularly in developing countries. Bangladesh is no exception which initiated various types of CBFM in the early 1980s. Recently, the CBFM in Bangladesh has been intensified but it is not certain how far this approach has achieved the targeted goals. In this book, drawing empirical data from four different CBFM sites, we evaluate performance of different approaches. This is a comprehensive work, for the first time too, to compare different approaches of CBFM and hence might be a useful reference book for forestry professionals, policy makers, researchers, faculty members and students, and development agencies working on natural resources management.

Chapter 1 presents the background of the inception of community-based forest management (CBFM) in tropical countries, and Bangladesh in particular. It also sets the aim(s) and outline of this book. The CBFM programs have been promoted in many countries as an innovative and potential approach to improved forest management and conservation strategies with a comprehensive blend of ecological and socioeconomic objectives. Many countries have now developed, or are in the process of developing, changes to national policies and legislation that institutionalize the CBFM. The government of Bangladesh has also put emphasis on the CBFM since the early 1980s, and a number of forestry projects have been implemented with the participation of local community having both success and failure in intended project outcomes.

Chapter 2 describes the evolution of CBFM in Bangladesh. Although Bangladesh forest has a history of more than 100 years of scientific forest management, CBFM is a recent intervention. In Bangladesh, this approach has been evolved from a policy emphasis over commercial production towards a more people-centric model designed to support the conservation of forest resources. First introduced in the late 1970s, community forestry, a form of CBFM, has proven a successful model for reforestation, afforestation, and diversifying economic opportunities in rural communities. The 1994 Forest Policy, the Forest (Amendment) Act of 2000, and the 2004 Social Forestry Rules are considered milestone achievements for the implementation of CBFM in Bangladesh. The CBFM has succeeded in reducing distrust and conflict between forestry officials and local people, encroachment on forest lands, and the deforestation rate. But, program implementation has faced roadblocks that stem from a top-down bureaucratic approach and poor governance system.

It is about 35 years that the Betagi-Pomra community forestry (CF) had been implemented. In chapter three, we investigated the impact of Betagi-Pomra CF on livelihoods of participants by employing DFID's sustainable livelihood framework. Analysis of BP (beginning of the project) and AP (at present) data shows significant positive changes in all livelihood capitals due to the CF activities. The degraded forests have now been converted into plantations. One of the potential threats that might jeopardize the goals of CF in the project sites is the continuous fragmentation of land. Fragmentation of allocated CF plots due to population growth and division of family seems a serious menace for the sustainability of CF. Regular monitoring by the FD staff members and, if necessary, review of agreement might be helpful to prevent land fragmentation.

Drawing on data from the Chunati wildlife sanctuary (CWS) in Chap. 4, we examined peoples' dependency on forest resources of CWS, forest health conditions, functions of co-management structure at local level, and impact on forest conservation. Household and forest trail surveys show that local people are heavily dependent on CWS's forests for own use and income. Local people clear forest land for betel leaf cultivation, sungrass production, and other agricultural practices. Forest vegetation survey recorded 93 tree species with a density of 239 trees/ha of which seven (07) exotic species contributed 60 %. Nearly 90 % trees belong to 5–15 cm dbh (diameter at breast height) producing a minimum biomass of 33.3 t/ha. We observed a four-tier co-management governance structure at local level consisted of village conservation forums (VCFs), peoples' forums (PFs), community patrol groups (CPG), and co-management committee (CMCs) with each component has their own functions. We found a lack of coordination among local level co-management structure, Nishorgo Support Project (NSP), Integrated Protected Area Co-management (IPAC), and forest department (FD). Although CMC was empowered by a government order to perform PA management-related functions, but NSP or IPAC took all managerial decisions. In official documents, there was existence of VCF, but we noticed no activities during baseline survey although later on they were involved with GIZ project. The gap between promises and actual provisions had created distrust between CPG and others (CMC, NSP,

IPAC, and FD). However, CPGs' continuous patrolling reduced the incidence of illegal logging, and the CWS is regaining its old forest growth. We recommend several policy implications for reducing misunderstandings among stakeholders and to ensure sustainability of PA co-management in CWS.

Chapter 5 focuses on the historical background of village common forests (VCFs) in the Chittagong Hill Tracts (CHTs) and, then drawing on empirical data from Komalchari VCF, examined peoples' dependency, indigenous management, and forest health. Although public forests have been degraded seriously, the indigenous people in the CHT have been managing VCF sustainably for at least 200 years. It was found that not only members of the VCF but also neighbors depend on VCF's resources for fuelwood, bamboo, timber, vegetables, wild fruits, vines, or medicinal plants. The VCF is vital source of water supply and a storehouse of local biodiversity. The vegetation study identified 94 plant species with a mean density of 587 tree/ha and a mean aboveground biomass of 453 t/ha. The VCF has been managed by informal indigenous rules. All villagers have equal access to resources and equally contribute to the protection and development of VCF. However, population pressure combined with improved marketing facilities, over-exploitation, personal greed, and tenure insecurity are exerting pressures on VCF. Recognizing the traditional and customary resource rights of the indigenous communities, acknowledging resource management system, providing tenure security, encouraging communities through legal and financial incentives, and at the same time upholding the spirit of CHT Peace Accord 1997 could be important policy tools for the sustainability of VCF in the CHT.

Community participation is now considered as an important element of any development programs. For development, adoption, and promotion of any agricultural technology, effective community participation is essential. In Chap. 6, we discuss the process and level of community participation in agroforestry development, state of agroforestry, and participant's opinion on sustainability of agroforestry. We also discuss the challenges and opportunities of agroforestry development. Considering participant's preference and experts' opinion, crop combination was selected and an agri-horti-silvicultural type of agroforestry system was developed. Even though participants used to grow agricultural crops along hillslope every alternate year, now they cultivate every year across the hill slope. A benefit–cost ratio for agricultural crops was estimated at 3:1. Planted seedlings are growing well, and average survival rate is more than 70 %. More than 80 % participants are interested to continue agroforestry even after project funding ends and 54 % of them desire to expand agroforestry in other areas. Even though they have been rigorously motivated, some participants did not work according to project authority's recommendations. For future development and promotion of agroforestry by involving ethnic communities in CHT, it is suggested to work closely in small areas in collaboration with local partners.

Chapter 7 illustrates a comparative scenario of four CBFM interventions in terms of socioeconomy, forest attributes, and legal, social, and management, and resource system-related characteristics. Socioeconomic attributes reveal that villagers in respective area depend on forest resources (fuelwood, bamboo, timber, leaves,

sungrass, vegetable) for cooking energy, house construction materials, food, and household income. Both VCF and Chunati PA are rich in plant species composition, but tree density is highest in Betagi-Pomra CF. Individual land ownership in Betagi-Pomra CF encouraged villagers to plant fast growing and high yielding tree species. Individual ownership, users' management rights, well-defined boundary, small resource system, and social equality ensure relatively more sustainable management of forests in Betagi-Pomra CF, VCF, and AF projects than that of Chunati PA. Some policy implications are suggested for sustainability of various CBFM approaches and recommendations are made to incorporate REDD+ schemes, introducing mutual rotating fund and collaboration of corporate agencies in CBFM.

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