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Capacity and Sustainability of Co-Management Organizations

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Cover photo: Meeting of Lawachara CMC (CREL team),
above photo: Baragangina RMO leaders discussing their activities (Paul Thompson)

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Co-management in biodiverse forest and wetlands was introduced in Bangladesh through three USAID-funded initiatives: the Management of Aquatic Ecosystems through Community Husbandry (MACH) project, the Nishorgo Support Project, and the Integrated Protected Area Co-management (IPAC) project. The CREL project aimed to expand and consolidate this. Through past initiatives and those of CREL enabling policies, formal structures and practical arrangements for co-management have evolved. This has led to an increasing literature on co-management and its impacts on natural resources and livelihoods which reveals cases of positive impacts but also many challenges. CREL worked to build capacity of 45 Co-management Organizations (CMOs) comprising co-management committees (general and executive) (CMCs) in forest Protected Areas, and community based organizations (CBOs) in wetlands and ECAs that are formally recognized by government and operate under a co-management framework. To guide capacity building and determine impacts, and based on extensive baseline assessments in 2013, CREL identified five key sustainability criteria that were operationalized into 17 key indicators and for each of these a measure was developed that could be used in annual participatory assessments conducted by a combination of CREL staff, local government officers, and leaders of CMOs (understood by the CMOs being assessed, and applied by CMO leaders as part of cross-assessments or peer-peer learning). The criteria used comprised of: legitimacy, organizational capacity, governance and inclusiveness, adaptive management, and resource mobilization (finances), scores were converted to percentages out of the potential maximum.

The outcomes of these assessments were used to guide overall capacity building components of CREL (training, mentoring, grants, and construction), and to tailor these to address the weaknesses and opportunities of individual CMOs. In general of the 11 training subjects a greater effort was made on CMCs, including building capacity for the five new CMCs formed during CREL, while the CBOs had all been established before CREL. Similarly grants and construction initiatives were not uniformly allocated but focused on better established CMCs and on selected CBOs.

Based on the assessments from 2013 to 2018 almost all CMOs made improvements in capacity based on the indicators used. By 2018 out of 45 CMOs 31 (almost 70%) were considered to be likely to sustain based on having an overall assessment score of 70% or more in two or more years, with another six (13%) reaching this level just in 2018 (either newer CMOs or wetland CBOs that only received rights to use and sustainably fish waterbodies in 2017-18). However, when the five criteria are considered individually, 15 (33%) of CMOs were still critically weak in resource mobilization (score of below 40%) in 2018 and only 19 (42%) of the CMOs by 2018 achieved the benchmark level of a score of 70% or more for the resource mobilization set of indicators. This reveals the aggregate achievements for example in greatly increasing the active participation of women in CMO decision making as well as involvement of the poor; improvements in record keeping and proven ability to face audits of operations and finances; the lack of planning in CMOs at the outset of CREL and the change to following participatory planning processes and having adaptation plans in place by 2018; engagement of CMOs in monitoring ecosystem conditions; and substantial progress in resource mobilization capacity but without materializing this into sufficient regular funding for CMOs.

Hence CREL helped CMOs make good progress in consolidating their legitimacy and in building their organizational functioning, governance and inclusiveness (primarily of women and the poor), and adaptive management. In the second half of CREL resource mobilization capacity of CMOs was identified as a priority (having progressed on the other enabling capacities that meant CMOs could manage funds more effectively). Building capacity to manage funds, and modest regular cash flows is only a starting point for CMO financial sustainability, CREL also tried to build capacity to mobilize resources either as external financial contributions or as support in kind including directing government and non-government resources towards priorities identified by remote and mostly poor communities through their vulnerability analysis and adaptation/resilience planning. It is recommended to continue an objective participatory annual assessment/review of CMOs, to continue selective capacity building for newer CMOs, and to continue facilitation of resource mobilization.

ACKNOWLEDGEMENTS

We thank all of the monitoring officers and regional coordinators of the CREL team, as well as officers of Forest Department who undertook the annual assessments of CMOs along with the CMOs. We thank John D. Dorr, Chief of Party CREL project, for advice and support in developing the set of indicators, Shahzia Khan for coordinating the extensive 2013 assessment, Aziza Asfin for providing analysis of grants, and Marzia Lipi for help in coordinating subsequent assessments. We particularly thank the office bearers of all 45 CMOs for their time and patience, they not only participated in assessments of their own CMOs and answered questions, but also in many cases undertook as part of a team assessments of nearby CMOs.

ABBREVIATIONS

CBO	Community Based Organization
CMC	Co-Management Committee and Council
CMO	Co Management Organization (including CMCs, RMOs and VCGs)
CPG	Community Patrol Group
CREL	Climate Resilient Ecosystems and Livelihoods project
DoE	Department of Environment
DoF	Department of Fisheries
ECA	Ecologically Critical Area
FD	Forest Department
FRUG	Federation of Resource User Groups
GIZ	German Commission for International Development [Gesellschaft für Internationale Zusammenarbeit]
IPAC	Integrated Protected Areas Co-management project
IUCN	International Union for the Conservation of Nature
MACH	Management of Aquatic ecosystems through Community Husbandry project
NP	National Park
NSP	Nishorgo Support Project
PA	Protected Area
RMO	Resource Management Organization
RUG	Resource User Group
PF	People's Forum
UNO	Upazila Nirbahi Officer
UNDP	United Nations Development Program
VCF	Village Conservation Forum
VCG	Village Conservation Group
WS	Wildlife Sanctuary

CHAPTER 1 INTRODUCTION

1.1 History of Co-Management for Ecosystem Conservation in Bangladesh

Bangladesh forests and wetlands over past decades have been declining and degrading under severe human pressure and poor governance, adversely impacting biodiversity, ecosystem services and food security. Conversely conservation and sustainable management of forests and wetlands can be and increasingly is one of the foundations of long term sustainable development in Bangladesh. Forests and wetlands remain the direct and indirect sources of livelihood and food security for millions of Bangladeshis, and their conservation is a key component of adapting and mitigating the challenge of climate change. For example, wetlands directly support food security by providing fish accessible to poor people and provide flood storage, protected forests secure watersheds (safeguarding downstream soils and water supplies) and mitigate carbon emissions, and mangrove and coastal forests help absorb the force of cyclonic surges.

Co-management (collaborative management involving local resource users, government and other stakeholders) has been taken up in many countries to improve their governance of natural resources notably fisheries, water resources, and forests, including in Protected Areas (PAs). Although co-management can describe a broad range of arrangements, here it is considered to involve government, local communities and other relevant stakeholders sharing the rights, roles and responsibilities to conserve and sustainably manage ecologically significant areas. This involves empowering poorer local people in decision making processes, and government decentralizing and empowering its local managers to work in a transparent collaborative way with civil society. Ultimately co-management requires that government and local people develop and share and implement a common vision, in this case of sustainable resilient biodiverse ecosystems. Co-management can link different levels in the hierarchy of management, and most recently flexibility and cross-stakeholder learning processes in the form of adaptive management have received attention. Compared with top-down systems, co-management is seen as improving efficiency (by increasing local compliance with conservation rules set by and with the community), and improving equity (through active participation of the poor in decision making). It is also often linked with measures to diversify and sustain or enhance the livelihoods of the poor, particularly to compensate for reduced access to protected areas, although internationally the effectiveness of such measures is reported to be mixed.

The management and administration of forests and wetlands in Bangladesh has a long history of state control. In forests this has been based on a professional Forest Department (FD) controlling all access and uses of forests for over a century, based on top-down enforcement. In wetlands this has been based on the land administration leasing out short term fishing rights to individuals or groups to generate revenue without concern for resource sustainability or fisher livelihoods. Changes started on a pilot basis in the 1990s. In forests this took the form of social forestry in degraded forests whereby use rights were allocated to individuals or small groups of households to restore tree cover and share benefits. In fisheries this involved community-based co-management (with the emphasis more on communities) in individual waterbodies, and there was also similar devolution of responsibility for small water management schemes to communities at about the same time. With USAID support, co-management was extended to three large wetland systems with formalization of government-community links from 1999 onwards under the MACH project, and with this experience it was tested on a pilot basis in five forest PAs under the Nishorgo Support Project. Co-management has since 2008 been taken up formally by the FD as the approach to management of forest PAs, and has been expanded in particular with USAID support under the IPAC and CREL projects. On a parallel track co-management has also been adopted by the Department of Environment (DoE) in several ecologically critical areas (ECAs) (coastal and inland wetlands) with UNDP and USAID support.

Widely recognized advantages from co-management are improved biodiversity conservation and livelihoods improvement for the landscape people. Co-management has allowed local stakeholders and natural resource users to engage with and take an active role with the Government of Bangladesh (GoB) agencies in management decisions and practices in the concerned sites. It has also contributed to more equitable access to natural resources where this is permitted (mainly in wetlands).

Since the 1990s a wide range of international donor/development agencies have supported co-management and associated activities in Bangladesh including: Ford Foundation USAID, GIZ, DFID, World Bank, European Commission, Arannyak Foundation, IUCN, UNDP-GEF, UNDP, and Netherlands. All have worked with the concerned Bangladesh Government agencies and with national NGOs to successfully implement the approach by involving local stakeholders.

Bangladesh Government has taken initiatives to institutionalize co-management. Initially in forest PAs this was through issue specific decisions, such as expanding co-management to PAs on a site by site basis; in 2009 approving a guideline whereby 50% of tourist entry fees are shared with the community (co-management body); and in 2010 approving compensation for the victims of wildlife and forest conservation. In 2012, Ministry of Environment and Forests formally recognized co-management by approving the Wildlife (Conservation and Security) Act where it defined co management as "Co-Management means, in case of management of natural resources in an area, to ensure active participation of all the parties for the purpose of management and maintenance of such resources through participation on the basis of consensus amongst all concerned parties and is a Co-Management system mentioned in section 21". This was the first legislation in Bangladesh defining co-management in forestry sector. In 2018 this was formally operationalized with the passing of the 'PA management rules 2017' which revised the formal structures of co-management bodies in forest PAs and allow the community to receive shares from eco-tourism activities, non-timber forest product licenses and tourist entry fees from all PAs.

In ECAs the GoB has acknowledged community contributions through co management by approving the role of Village Conservation Groups and a system of ECA coordination committees under the ECA Management Rules 2016. In this case the system is based largely on administrative boundaries and ECA level decision making, but clear roles for community organizations (VCGs) within different tiers of co-management and the links between tiers of co-management remain to be resolved.

In other freshwater wetlands community-based co-management was recognized on a more piecemeal basis. In 2000, the Ministry of Land and Ministry of Fisheries and Livestock agreed upon a framework whereby leases to public waterbodies (*jalmohals*) could be reserved for 10-years for community management established through Department of Fisheries (DoF) projects and over 300 waterbodies came under such agreements. However, at the end of that period the Ministry of Land did not renew these reserved leases for communities. The MACH project also established two important precedents: with Ministry of Land by having waterbodies taken permanently out of leasing and made sanctuaries (subsequently extended to 12 waterbodies in Hakaluki Haor ECA), and with Ministry of Fisheries and Livestock by establishing endowment funds in five Upazilas to sustain wetland co-management – the interest from these funds is used to make small grants to community organizations for wetland habitat conservation.

1.2 Co-management Established Through USAID Support

As of June 2018, the FD has declared 39 forest PAs in Bangladesh, and out of these co-management has been established in 22 PAs. The Department of Fisheries has been practicing co-management in Hail Haor, as well as in Turag-Bangshi and Kangsha-Malijee wetlands previously supported by MACH, and in a range of separate waterbodies previously under various projects. The Department of Environment has established co-management in four ECAs: Hakaluki Haor, Cox's Bazar - Teknaf

Peninsula, Sonadia Island and St Martin's Island, and in addition co-management established under the Forest Department model for the Sundarbans actually covers part of the adjacent ECA. The sites where CREL has supported co-management are shown in Table 1.1 and Fig. 1.1.

The term co-management organization (CMO) is used in this report as an umbrella term encompassing all those entities engaged in co-management that have defined responsibilities for specific areas of natural resources/ecosystem. These were the focus of CREL capacity building. Thus it includes:

- formal co-management bodies such as co-management committees (and former councils) or CMCs in forest PAs,
- formal co-management bodies in ECAs (the Union, Upazila and District ECA coordination committees, and
- community based organizations responsible for wetland/waterbody areas (and answerable to co-management bodies) – known as Resource Management Organizations (RMOs) in wetlands such as Hail Haor inherited from MACH project and as Village Conservation Groups (VCGs) in ECAs.

CMOs have not been interpreted as including other components of the forest PA co-management system such as Village Conservation Forums (VCF), People's Forum (PF - a federation of the VCFs), or Community Patrol Groups (CPGs), as none of these have clearly defined responsibilities for specific spatially defined areas of natural resources or ecosystem, and they do not function as independent bodies.

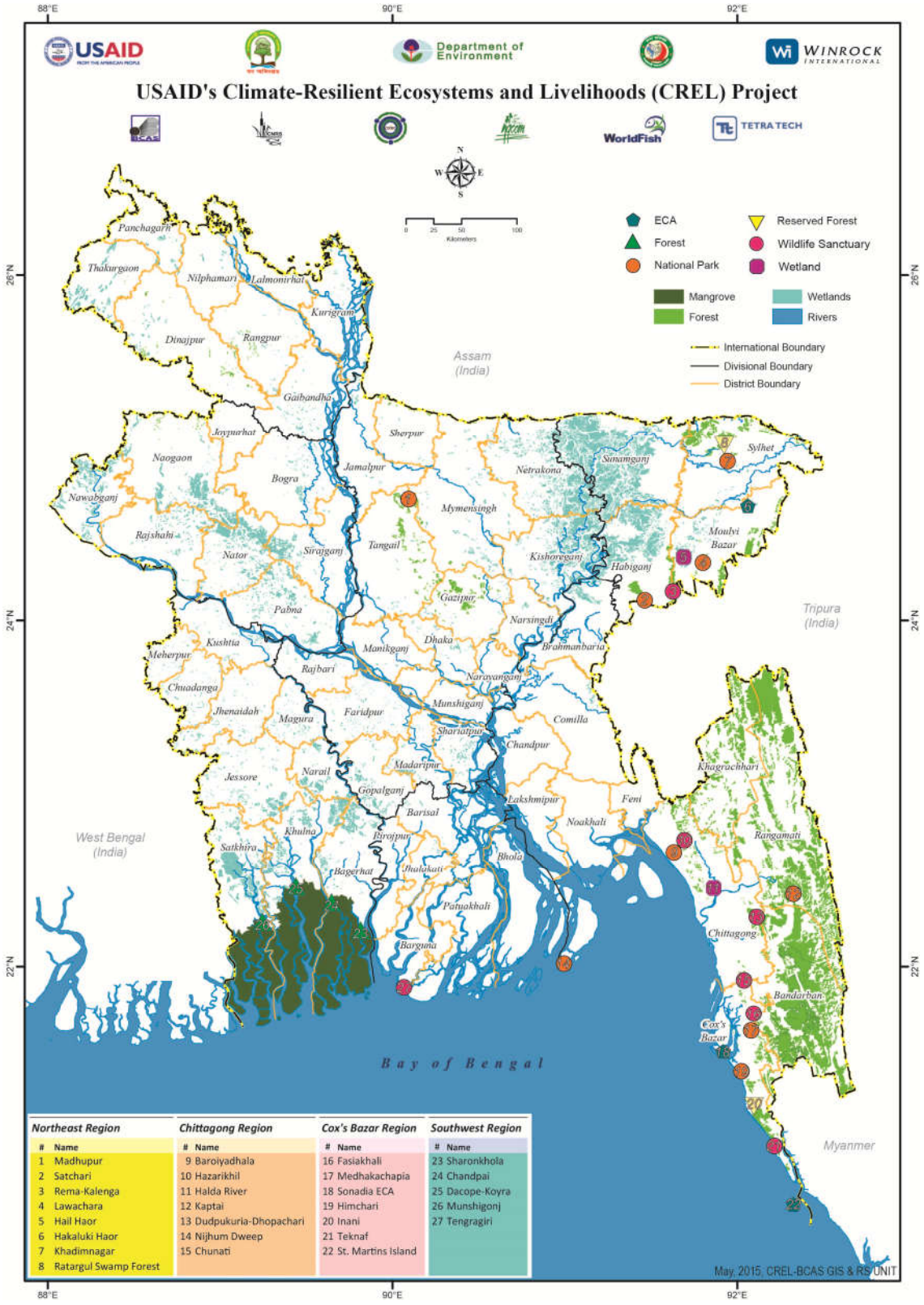
Table 1.1 Co-management sites and associated organizations supported by CREL in Bangladesh:

Site	Region	Ecosystem	Area (ha)		CMOs	Remarks
			Biologically sig.	Landscape		
Protected Areas - Forest Department						
Modhupur NP	Central	Sal forest	8,436	11,115	2 CMCs: Dokhola, Rasulpur	Co-management established under IPAC
Baroiyadhala NP	Chittagong	Evergreen hill forest	2,934	10,385	1 CMC	Co-management newly established under CREL
Chunati WS	Chittagong	Evergreen hill forest	7,764	11,018	2 CMCs: Chunati, Jaldi	Co-management established under Nishorgo
Dudpukuria-Dhopachari WS	Chittagong	Evergreen hill forest	4,717	4,652	2 CMCs: Dudpukuria, Dhopachari	Co-management established under IPAC
Hazarikhil WS	Chittagong	Evergreen hill forest	2909	9,342	1 CMC	Co-management newly established under CREL
Nijhum Dweep NP	Chittagong	Mangrove forest and intertidal	16,352	13,648	1 CMC	Co-management newly established under CREL
Kaptai NP	Chittagong	Evergreen hill forest	5,464	6,312		Co-management established under IPAC, support under CREL ended when co-management was suspended
Fasiakhali WS	Cox's Bazar	Evergreen hill forest	1,302	5,790	1 CMC	Co-management established under IPAC
Himchari NP	Cox's Bazar	Evergreen hill forest	1,729	8,788	1 CMC	Co-management established under IPAC
Inani Reserved Forest	Cox's Bazar	Evergreen hill forest	7,700	11,279	1 CMC	Largely supported by Arannayk Foundation
Medakachapia NP	Cox's Bazar	Evergreen hill forest	396	707	1 CMC	Co-management established under IPAC
Teknaf WS	Cox's Bazar	Evergreen hill forest	11,615	22,857	3 CMCs: Shilkhali, Teknaf, Whykeong	Co-management established under Nishorgo

Site	Region	Ecosystem	Area (ha)		CMOs	Remarks
			Biolog-ically sig.	Land-scape		
Khadimnagar NP	North East	Evergreen hill forest	679	6,776	1 CMC	Co-management established under IPAC
Lawachara NP	North East	Evergreen hill forest	1,250	7,064	1 CMC	Co-management established under Nishorgo
Ratargul SBCA	North East	Swamp forest	204	??	1 CMC	Co-management and PA newly established under CREL
Rema-Kalenga WS	North East	Evergreen hill forest	1,795	12,527	1 CMC	Co-management established under Nishorgo
Satchari NP	North East	Evergreen hill forest	243	17,545	1 CMC	Co-management established under Nishorgo
Sundarbans reserved forest (including 6 WS and ECA)	South west	Mangrove forest	651,720	0	4 CMCs: Sarankhola, Chandpai, Dacope-Koyra, Monshigonj	Landscape of 51,334 ha forms the ECA
Tengragiri WS	South west	Mangrove forest	4,050	6,457	1 CMC	Co-management newly established under CREL
Wetland – Department of Fisheries and local administration						
Hail Haor	North East	Freshwater wetland	3,795	8,500	2 Upazila Fisheries Resource Conservation and Development Committee 8 RMOs: Agari, Balla, Baragangina, Dumuria, Jethua, Kajura, Ramedia, Sananda	Co-management established under MACH project
Ecologically Critical Areas (wetlands) – Department of Environment						
Sonadia Island ECA	Cox's Bazar	Coastal	4,916	6,504	1 Union ECA committee; 5 VCGs: Ghativanga, Bardia, Sonadia Westpara, Sonadia Eastpara, Tajiakata	VCGs formed under and also received support through other DoE projects
St. Martin's Island ECA	Cox's Bazar	Coastal	590	0	1 Union ECA coordination committee; 6 VCGs: Konapara, Purbapara, Dakhin Para, Majher Para, Pachim Para, Dail Para	Added late under CREL, VCGs were not a focus for institutional development
Cox's Bazar - Teknaf Peninsula	Cox's Bazar	Coastal	10,465	0	1District, 4 Upazila ECA coordination committees 38 VCGs	Not a focus for institution building, but CREL supported some VCGs in some activities and ECA overlaps with landscapes and communities of 5 CMCs in the same area
Hakaluki Haor	North east	Freshwater wetland	18,383	0	2 District, 5 Upazila, ECA coordination committees; 28 VCGs, of these 5 were supported by CREL: Borodal, Ekota, Halla, Judihistipur, Naogaon	VCGs formed under and also received support through other DoE projects

CMC – Co-Management Committee
ECA – Ecologically Critical Area
NP – National Park
RMO – Resource Management Organization
WS – Wildlife Sanctuary
VCG – Village Conservation Group

Fig 1.1 Locations of Co-managed Sites under CREL Project Support

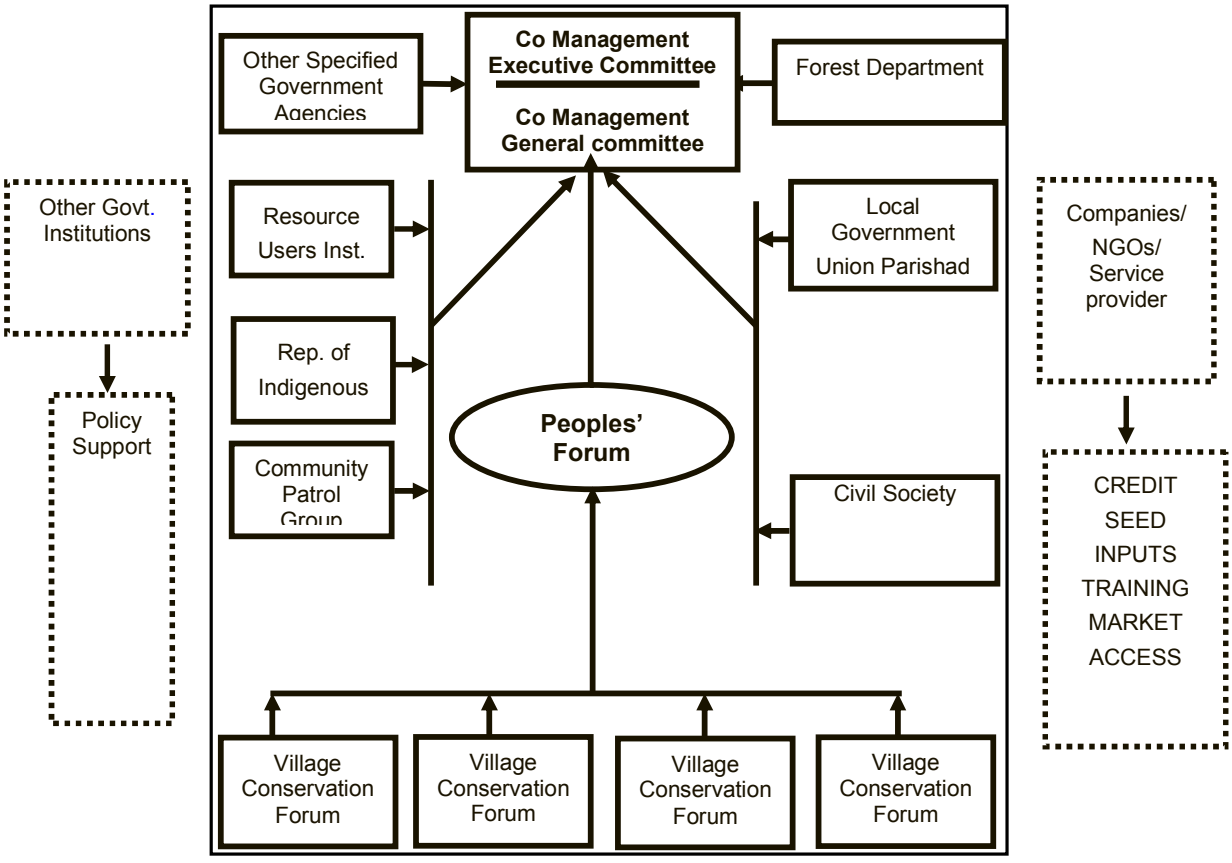


1.3 Structure of Co management Institutions

1.3.1 Forest PA co-management

The latest (2018) formal structure for co-management in forest PAs is set out in the PA Management Rules 2017, however for most of the CREL project period during which capacity was built in these CMOs the structure was slightly different: the current executive committee was known as the Co-Management Committee, and the current general committee was known as the Co-Management Council. Within the executive and general committee places are reserved for each of the categories of stakeholder shown within the large box and linked by solid arrows in Fig. 1.2. Here representation of the various VCFs (the number of which varies according to the number of villages within the landscape of a PA) comes via a People's Forum which comprises one elected woman and one elected man from each VCF. Outside of the formal co-management structure are other stakeholders and actors not formally involved but influencing and potentially supporting resilient ecosystems and livelihoods, shown in dotted lines in Fig. 1.2 – primarily other government agencies and bodies whose policies can impact on lives and land uses in the landscape or impact zone around a PA; and various service providers from the private sector and NGOs and government.

Fig 1.2 Co-Management Structure in Forestry Sector



As set out in the PA Management Rules 2017:

"The Co-management General Committee shall be formed comprising of the following members, namely: -

(a) Upazila Nirbahi Officer;
(b) Upazila Agriculture Officer;
(c) Upazila Fisheries Officer;
(d) Upazila Livestock officer;
(e) Upazila Social Welfare Officer;
(f) Assistant Conservator of Forests;
(g) the concerned Range Officer;
(h) Beat Officers and Station Officers of the concerned range;
(i) 1 (one) member of the police, and one member from each of the Rapid Action Battalion, Border Guard Bangladesh and Coast Guard, if any;
(j) 2 (two) representatives from the Union Parishad of the concerned Protected Area nominated by the Upazila Nirbahi Officer, one of them shall be woman member
(k) 2 (two) representatives from the local elites of the Protected Area nominated by the Upazila Nirbahi Officer;
(l) 10 (ten) representatives of Peoples' Forum nominated by them, 4 (four) members of them may be women, if any;
(m) 4 (four) representatives of Community Patrol Group nominated by them, and if a Response Team is constituted under sub-rule (5) of rule 19 one representative of them shall be included;
(n) 2 (two) representatives of the Forest Resources User Organization nominated by the Divisional Forest Officer; and
(o) 1 (one) representative of ethnic groups nominated by the Upazila Nirbahi Officer, if any:

Provided that in the formation of a Co-management General Committee in the Sundarban, 1 (one) representative from the registered fishermen, and 3 (three) representatives from the non-timber forest product collectors who are dependent on the Sundarban shall be nominated by the Divisional Forest Officer." (Clause/section 5 of the Protected Area Management Rules 2017)

Similarly the rules set out that:

"(1) The co-management Executive Committee shall consist of the following members, namely: -

(a) Upazila Agriculture Officer;

(b) Upazila Fisheries Officer;

(c) Upazila Livestock Officer;

(d) Upazila Social Welfare Officer;

(e) Assistant Conservator Forests;

(f) the concerned Range Officer;

(g) 1 (one) official from the Beat Officers and Station Officers of the concerned range;

(h) 1 (one) member of the police, and one member from each of the Rapid Action Battalion, Border Guard Bangladesh and Coast Guard, if any;

(i) 2 (two) representatives from the Union Parishad of the concerned Protected Area nominated by the Upazila Nirbahi Officer, among them one (one) shall be women member;

(j) 6 (six) representatives of People's Forum nominated by them, 4 (four) of which shall be women, if any;

(k) 2 (two) representatives of Community Patrol Group nominated by them, and if a Response Team is constituted under sub-rule (5) of rule 19, one representative of them shall be included;

(l) 1 (one) representatives of the Forest Resources User Organization nominated by the Divisional Forest Officer; and

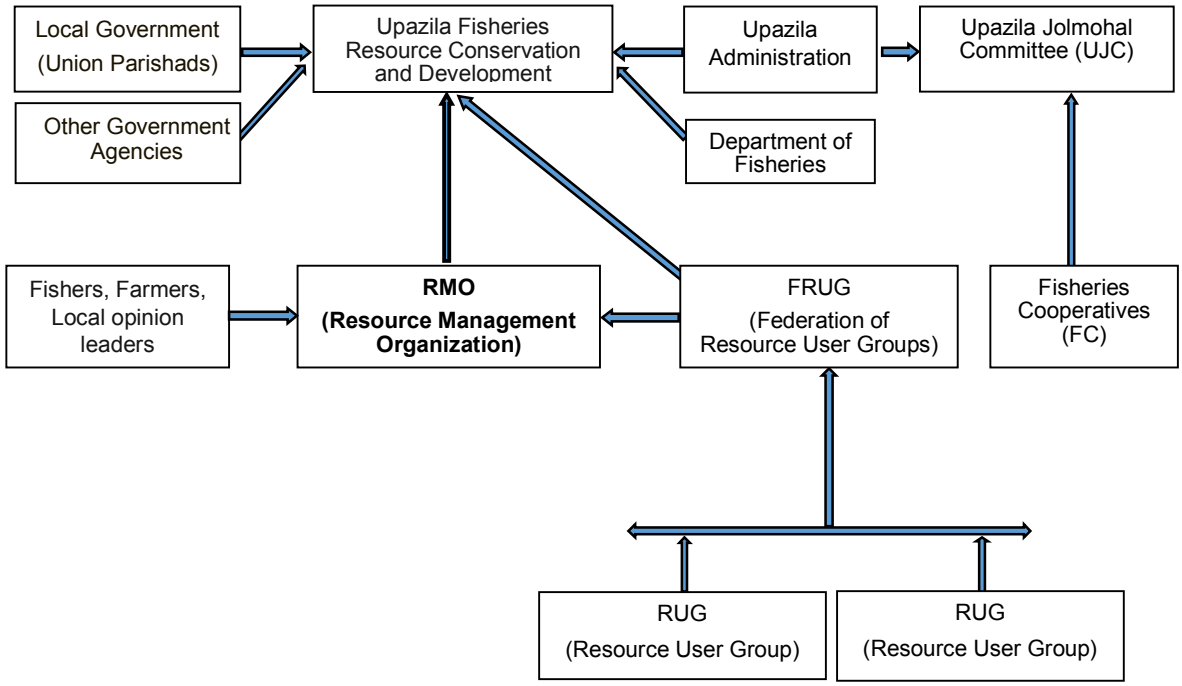
(m) 1 (one) representative of ethnic groups nominated by the Upazila Nirbahi Officer, if any:

Provided that in the formation of a Co-management Executive Committee in the Sundarban, the Divisional Forest Officer shall nominate 1 (one) representative from the registered fishermen, and 1 (one) representative from the non-timber forest product collector, dependent on the Sundarban." (Clause/section 5 of the Protected Area Management Rules 2017).

1.3.2 Wetland co-management

In wetlands where MACH project established co-management there are three parallel and overlapping categories of community organization and two parallel government committees, one of which functions as a co-management committee and replaced purpose designed co-management committees formed during MACH. At the community level are Resource Management Organizations (RMO) – formal community based organizations registered with the Department of Social Welfare and comprising local people living close to and using specific areas of wetland including one or more public waterbodies, and having no government membership. Approximately 60% of RMO membership comprises members of Resource User Groups (RUG) – poorer households using wetland resources for their livelihoods. At the union level these RUGs are federated (FRUGs) into formal organizations registered with the Department of Social Welfare and these operate revolving funds providing credit to RUG members to develop income sources that are not harmful to the wetland and guaranteed by all the members in the respective RUG.

Fig. 1.3 Co-management structure in wetlands (fisheries)

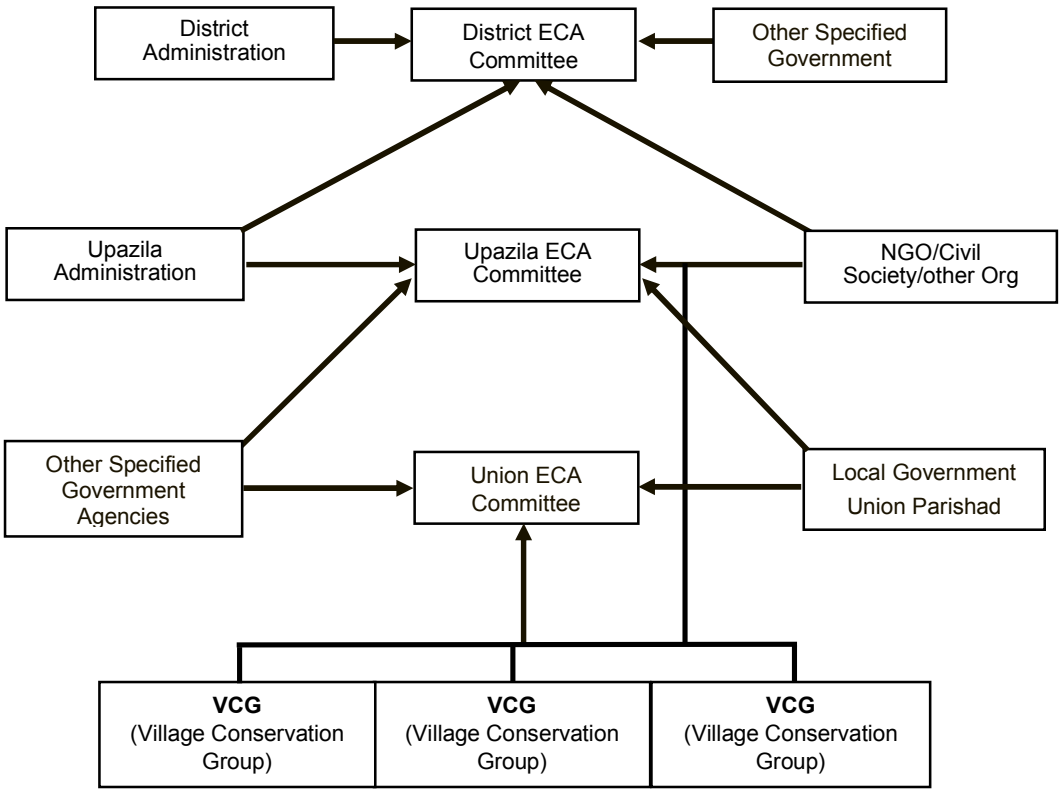


The elected leader of each RMO and FRUG within an Upazila is a member of the Upazila Fisheries Resource Conservation and Development Committee, along with the chairpersons of each Union Parishad within the wetland in that Upazila, and other relevant Upazila level officers, with the Upazila Nirbahi Officer (UNO – chief administrative officer of the sub-district) the chairperson of this committee and the Upazila Fisheries Officer the member secretary. Among other responsibilities, this committee oversees and advises on activities of the RMOs and FRUGs and allocates grants to RMOs from its endowment fund income. Separately there is a traditional system of Fisher Cooperative Societies (often with overlapping membership of fishers with both RUGs and RMOs, but often dominated by elites from outside or within the fishing community), these are eligible to bid for short term leases to public waterbodies, which are allocated by Jalmohal committees (those larger than 8 ha by the District Jalmohal Committee, and those smaller than 8 ha by the Upazila Jalmohal Committee). A few fisher cooperative or RMO leaders may be invited to join the jalmohal committees, but membership is dominated by government officials, and the chairperson is also the Upazila Nirbahi Officer.

1.3.3 ECA co-management

In ECAs there is a multi-tier structure, with Village Conservation Groups (VCGs) formed as community organizations (fishers, farmers, landless, local elites) with no officials, in each of the main villages within the ECA, these may have formal responsibility for protecting a wetland sanctuary or swamp forest, or for using sustainably a public waterbody, and also promote sustainable uses and conservation within their area. Separately, for each tier of government there is an ECA committee comprising mainly of government officers, but also at Union and Upazila levels including elected councilors (Union Parishad) and representatives of the VCGs (Fig. 1.4). However, there is no formal link between the members of one tier of committee and the next tier up. Also there is no process among VCGs for deciding who will represent all relevant VCGs within a committee, or for all VCGs agreeing their position or issues to be raised in the ECA committees.

Fig. 1.4 Co-management Structure in ECAs



The specified compositions of the three triers of ECA coordination committee under the ECA rules are as follows, note the complete lack of any upward representation from the Upazila tier to District tier with the exception of the UNOs (government officers) and lack of any community stakeholder representation. Note also the lack of clarity regarding VCG membership in the Upazila and Union tiers of committees – in neither do the Rules specify all VCGs or a minimum number of VCGs or even a maximum number of VCGs.

District ECA Committee: "Subject to the provision of sub-rule (2), there shall be a District Committee consisting of the following members in the district where the ecologically critical area is situated, namely:-

(a) Deputy Commissioner, who shall also be its President;
(b) Superintendent of Police;
(c) Additional Deputy Commissioner (Revenue);
(d) Deputy Director, Department of Agricultural Extension;
(e) Executive Engineer, Bangladesh Water Development Board;
(f) Executive Engineer, Local Government and Engineering Department;
(g) District Fisheries Officer;
(h) District Livestock Officer;
(i) district level Officer of the Department of Forest;
(j) Deputy Director, Department of Social welfare;
(k) concerned Upazila Nirbahi Officers;
(l) district level Officer of the Bangladesh Agricultural Development Corporation;
(m) District Ansar and VDP Officer;
(o) District Woman Affairs Officer;
(p) President, District Bar Association;
(q) President, District Press Club;
(r) Deputy Director, Bangladesh Rural Development Board;
(s) District Cooperative Officer;
(t) 7 (Seven) representatives nominated by the Deputy Commissioner from the Nongovernment Organization, Professional body, if any, and civil society who are involved in the environment development activities;
(u) a district level Officer of the Department of Environment, if any, otherwise any Officer nominated by the President shall discharge the secretarial functions.

(2) If an ecologically critical area is situated at more than one district, the Divisional Commissioner shall discharge the functions of the President of the District Committee." (clause 6)

Upazil ECA Comittee: "There shall be a Upazila Committee consisting of the following members in the Upazila where the ecologically critical area is situated, namely:-

(a) Upazila Nirbahi Officer, who shall also be its President;
(b) Assistant Commissioner (Land);
(c) Upazila Agricultural Extension Officer;
(d) Upazila Fisheries Officer;
(e) Upazila Livestock Officer;
(f) Upazila Welfare Officer;
(g) Range Officer, Department of Forest, if any;
(h) Officer-in-charge of the Thana;
(i) Upazila Ansar and VDP Officer;
(j) Upazila Secondary Education Officer;
(k) Upazila Primary Education Officer;
(l) Upazila Cooperative Officer;
(m) Upazila Rural Development Officer;
(o) concerned Union Council Chairman;
(p) President or Secretary of the Cooperative Society formed by the Village Conservation Group;

(q) 5 (Five) representatives nominated by the Upazila Nirbahi Officer from the Nongovernment Organization, Professional body, if any, and civil society who are involved in the environment development activities;
(u) a Upazila level Officer of the Department of Environment, if any, otherwise any Officer nominated by the President shall discharge the secretarial functions." (Clause 9)

Union EC Committee:
"(1) There shall be a Union Coordination Committee consisting of the following members in the Union where the ecologically critical area is situated, namely:-
(a) Chairman, Union Council, who shall also be its President;
(b) Sub-Assistant Agricultural Officer;
(c) Union Assistant Land Officer;
(d) Union Ansar and VDP Officer;
(e) Forester, Department of Forest (officer of the nearest office);
(f) concerned Member of the Union Council;
(g) President or Secretary of the Village Conservation Group Cooperative Society;
(h) 5 (Five) representatives nominated by the Chairman, Union Council from the Nongovernment Organization, Professional body, if any, and civil society who are involved in the environment development activities;
(i) an Officer nominated by the Department of Environment, if any, otherwise any Officer nominated by the President shall perform the secretarial duties.
(2) The Union Coordination committee shall-
(a) monitor and coordinate the activities of the Village Conservation Group and give necessary directions;
(b) assistant to solve any problem faced by the Village Conservation Group in performing its duties." (Clause 12)

CHAPTER 2 OTHER STUDIES OF CO-MANAGEMENT

2.1 Introduction

Since co-management of forest PAs was introduced in Bangladesh in 2005, a number of independent studies and papers have been published based on reviews of the system or on individual case studies. This chapter summarizes some of the observations made and issues raised in those papers.

2.2 Community Participation and Development

According to Kolahi et al. (2013), failing in building connections with local people is the main cause of unsuccessful management approaches in protected areas. Their observations might be interpreted to mean that no Forest Department staff have been trained in community outreach and conservation awareness, or in facilitating livelihood development for conservation. These can be considered the two core expertise areas for effective engagement with local communities.

Ferdous (2015) stated that most of the poor villagers have little or no idea about biodiversity conservation. He recommended that steps should be taken by the managing body to make villagers aware of species conservation as well as the links between deforestation, global warming, climate change, and their consequences

Traditional use of non-timber forest products from the forest protected area system of Bangladesh appears to be widespread, and represents a significant proportion of local livelihood income. It also represents a particularly vital source of income to landless villagers. To avoid conflict, and promote traditional livelihoods of the communities, studies have proposed to allow people harvesting certain amounts of forest products while ensuring ecological sustainability (Mukul et al. 2010, 2015). In Satchari NP, Mukul et al (2015) discovered that local communities gather a substantial amount of non-timber forest products despite official restrictions: 27% of households living close to the protected area received at least some cash benefit from the collection, processing and selling of non-timber forest products. These non-timber forest products (food, fodder, fuel, medicines and building materials) contribute to households' primary, supplementary and emergency sources of income. Non-timber forest products also constituted an estimated 19% of households' net annual income, and were the primary occupation for about 18% of households studied.

There is a strong link between poverty and dependence upon forest. In Kaptai NP, Miah (2011) found that approximately 36% of households in Bangchari and 57% of households in Kamillachari have no agricultural land. The landless in both villages collect and sell fuelwood and other non-timber forest products from neighboring forests. In Madhupur NP, Begum (2011) found that 82% of households in the village of Pirgacha engage in forestry activities inside the national park, mostly collecting fuelwood (75%) for daily consumption and also for sale, but also 20% collect wood and 18% collect fruits and leaves from forests. Whereas in Telki village, where only a third of households own land, she found that all the households collect fuelwood from the national park both for household consumption and for sale, and in addition 84% collect wood and 12% collect fruit and leaves from the forest.

2.3 *Co-management Institutions*

The majority of the protected areas established up to the 1980's followed an exclusionary state-run approach, restricting the customary user rights of the local communities (Sarker and Roskaft 2011). The challenge has been to develop protected area management, in the context of wider forestry management that is dominated by a colonial legacy characterized by bureaucratic and revenue oriented management, and that has been isolated or alienated from communities by ignoring their traditional rights, indigenous knowledge and resource use practices (Rashid et al. 2017).

The collaborative system that has developed in Bangladesh forests contrasts strongly with the collaborative management arrangements found within other countries in Asia, which have committees dedicated to different technical areas of management, which have evolved over longer time frames. Mount Kitanglad Range Natural Park, mooted as one of the best protected area collaborative management systems in the Philippines, has no less than 13 committees operating under the Protected Area Management Board and Executive Protected Area Management Board, with each committee dedicated to focus on a particular protected area issue (Parr 2017). Periyar Tiger Reserve also has a wide range of institutional bodies tackling various issues found in landscape protected area management (Parr 2015).

Lack of clarity in the overall aims of co-management may well account for the degree of ambiguity between the role and responsibilities of the Forest Department and the co-management bodies in field operations in Bangladesh reported by Rashid et al. (2015). The lack of focus on discussing technical agendas, also enabled elite groups to dominate CMCs. The observations made are that too few members have been appointed with technical knowledge, whilst too many members have been elected or co-opted with their own agendas.

Chowdhury et al. (2014) reported a lack of policy level integration in all 34 protected areas that they reviewed in Bangladesh. They cited this as the biggest threat to biodiversity conservation in protected areas. In summary they observed that:

(i) the protected area management arrangements are simply not geared towards promoting co-management;
(ii) the two main collaborative management bodies are not built upon the technical fields of protected area management, nor are built upon the priorities of the local communities, including their traditional rights; and
(iii) all the project-driven institutional bodies have been construed with minimal concern to maintaining financial sustainability.

According to Haider and Kabir (2014), a number of stakeholders complained that the working body of co-management - the Co-management Committee - was not always co-operative in engaging local people in decision making. The stakeholders claimed that there is a communication gap between the Co-management Committee, the Village Conservation Forums and local villagers which is sometimes responsible for unsuccessful conservation approaches. Rashid et al (2017) also recommend to devise an appropriate governance mechanism recognizing and supporting local rights, access and participation in protected area management.

Local politicians (members of political parties) are important stakeholders impacting co-management, and are formally involved in the Bangladesh model through an advisory role to the forest Co-Management Councils. However, sometimes politically influential persons misuse their power by overshadowing the voice and existence of grass root interests (Jashimuddin & Inoue 2012), and/or these politicians may be involved directly or indirectly in illegal poaching and resource collection from the forest (Uddin & Mukul 2007; Uddin & Foisal 2007; Fox et al. 2007; Muhammed et al. 2008). On many occasions, beneficiary selection, illegal logging and instances of encroachment inside

the protected areas were patronized by local elites and political leaders (Rashid et al. 2013; Ferdous 2015).

2.3 Financial Sustainability of Co-management

All the protected areas in Bangladesh face an acute funding shortage, hampering the sustainability of forest protection and biodiversity conservation (Chowdhury et al. 2014). Bangladesh has severe resource constraints, and the Government of Bangladesh cannot allocate sufficient funds from the public budget to the forestry sector, because of other priorities (Mulongoy et al. 2008).

Ecotourism has been identified by several authors as it represents one of the most viable options for delivering benefits to the local communities in managing protected areas (Nagothu 2001; Fox et al. 2007; Haider and Kabir 2014). Revenue sharing from ecotourism would assist in maintaining the financial sustainability of collaborative management. However, expanding the system of entry fee collection to more forest PAs and more generally sharing of revenue between Government of Bangladesh and CMCs has been a challenge, while the scope for wetland CBOs (RMOs and VCGs) to generate funds from nature based tourism has been neglected.

CHAPTER 3 METHODS

3.1 Sustainability Criteria

For a CMO to be sustainable ultimately it has to continue to deliver some minimum level of valued services or benefits – in co-management for conservation this means protecting and sustaining biologically significant eco-system units and improving the lives of people dependent on those areas.

In 2013 as a baseline, CREL assessed the performance and capacity of CMOs using 11 themes organized under four headings (service delivery, inclusiveness, organizational management and governance of co-management) and supported by 102 indicators. This was based on review of past capacity assessments of similar community based organizations and co-management bodies by other projects within Bangladesh including IPAC, MACH and other projects in wetlands and fisheries, as well as review of assessment criteria and checklists used globally by USAID and others. Some tools focus more on environmental conditions and conservation management, but other indicators had been adopted by CREL and previous projects to monitor forest and wetland condition, and the need was to track governance. Other tools and checklists were not appropriate as they were designed for use at a national level and do not focus on individual protected areas or CMOs (for example on financial sustainability – Bovarnick 2010).

A drawback of most existing tools and procedures was that they were designed to assess organizations such as NGOs, with staff and budgets, whereas the CMOs fell into two subsets neither of which fitted well with existing frameworks. Community Based Organizations (CBOs, known depending on the site as Resource Management Organizations or as Village Conservation Groups) are voluntary organizations of local people without staff, that have a recognized responsibility and right to conserve and use sustainably defined areas within a larger wetland ecosystem. In these cases government is not a member of the CBOs, but the CBO leaders represent them in co-management bodies (committees) convened by government to coordinate management and related stakeholders at the larger ecosystem level (covered by multiple CBOs). Co-Management Committees and Councils (the former being the executive body of the later and jointly abbreviated as CMC) comprise of formally a mixture of government and civil society representatives with the latter sub-divided between community groups and local government councilors – Union Parishad chairpersons). Further details are given in Chapter 1.

The baseline detailed assessment generated important information and insight which guided the design and implementation of the following four years of capacity building support from CREL. However, the 102 individual questions or indicators used were considered to be unmanageable for regular monitoring and also lacked intuitive appeal as a tool or output to be shared with co-management stakeholders in guiding their capacity development. After an interactive process of consultations, review of the underlying basis of past assessment tools, and rationalization, five key **criteria** were identified all of which are necessary for a CMO to be sustainable, i.e., to deliver these services or benefits. Development of all these capacities and conditions can and should progress together, but to some extent these five criteria form a sequence of development. These five criteria were operationalized through narrowing down to 17 key **indicators** distributed across them, and for each indicator a **measure** was defined as the point or level of performance of the correlated indicator where it is judged to be sustainable. In other words, sustainability was considered to be the level of services and benefits minimally sufficient, based on CREL's experience of assessing the performance of CMOs and history of CBOs and CMOs in Bangladesh. The criteria, indicators and measures used annually from 2014 to 2017 are detailed below. Note that the bodies being assessed are not all the same in terms of types of members, role and scale, and therefore for some indicators the measure formulated differs between CBOs and co-management bodies such as CMCs.

Legitimacy – recognized long term rights and responsibilities. Necessary enabling requirements are that government (ministries and departments) formally places areas under co-management and recognizes co-management bodies and CBOs in its normal policies and business (not as project based or time-bound); and that local councils and opinion leaders accept the value of co-management and cooperate with CMOs. The extent of government support to co-management is a key aspect of this.

Table 3.1 Indicators and measures for criterion 1: Legitimacy

Indicator	Measure
Indictor 1.1. Government formally recognizes CMO	CMO is formally recognized by government (registration – CBO or gazette notification – co-management body)
Indicator 1.2 Community organizations/groups represented in co-management body	For CBO, it has a representative in a co-management body; OR For co-management body, at least 33% of members come from local community groups/organizations
Indicator 1.3. Local councils and opinion leaders accept the value of co-management and cooperate with CMOs.	In last year Union Parishad supported CMO (e.g. in endorsing a request to higher government level, acting to meet need identified by CMO, solving conflict, etc.)

Organization capacity - transparency and efficiency in organizational operations. This includes holding self-organized timely meetings, effective and useful general record keeping and follow ups; sound financial management processes and practices; and auditing (both of finances and procedures).

Table 3.2 Indicators and measures for criterion 2: Organizational functioning

Indicator	Measure
Indictor 2.1. Self-organized timely meetings	For Forest CMC: CMCouncil meeting organized by CMCommittee and held within last 7 months; OR For all other CMOs and CBOs: AGM organized by executive committee and held within last 13 months
Indictor 2.2. Effective and useful general record keeping and follow ups	CMO keeps minutes and records of its decisions by itself such that all agenda items in last meeting written up with solutions/ decisions
Indicator 2.3. Sound financial management processes and practices	Accounts book and records well maintained
Indicator 2.4. Auditing (both finances and procedures)	External audit held within last 12 months and gave feedback to CMO

Governance and inclusiveness - accountability and responsiveness to the needs of NRM users and especially those who are disadvantaged. This includes processes for electing and changing leaders; how the poor and women are actively involved in consultations and decision making in the CMO; and fair access to resources for minorities, traditional users and the poor.

Table 3.3 Indicators and measures for criterion 3: Governance and inclusiveness

Indicator	Measure
Indicator 3.1. Processes for electing and changing leaders	Office bearers/EC election last held within 3 months of schedule as per constitution
Indicator 3.2. Women are actively involved in consultations and decision making in the CMO	At least one women is an office bearer or chairs a sub-committee (not women's affairs)
Indicator 3.3. Poor are actively involved in consultations and decision making in the CMO	At least one poor person (own <50 decimals and sells labor or actively fishes) is an office bearer or chairs a sub-committee (not poor's affairs)
Indicator 3.4. Fair access to resources for poor, disadvantaged and minorities	CMO sets and follows rules and processes that allocate use of NR that it has influence/control over to favor the poor, women, and any ethnic minorities that traditionally use the area, and these disadvantaged groups consider the CMO practice to be fair

Adaptive management - planning and learning. Effective climate resilient natural resource management must be based on adaptive management processes that adjust to a changing context and to experience. Required capacities for this include: ability in participatory management plan preparation and reviewing/revising plans, understanding and taking account of climate hazards and trends, ability to resolve conflicts and mediate between stakeholders, and monitoring of activities and ecosystem conditions that is used to guide decisions and the management planning cycle.

Table 3.4 Indicators and measures for criterion 4: Adaptive management

Indicator	Measure
Indicator 4.1. Ability in participatory management plan preparation and reviewing/revising plans	For co-management bodies: one annual management plan jointly prepared by co-management stakeholders including GOB; OR For CBOs: annual management plan prepared by CBO with full member participation and informed/ endorsed by Government with record of GOB advice or endorsement
Indicator 4.2. Understanding and taking account of climate hazards and trends	Current management plan explicitly includes contingency plans or considers what would happen if hazard or trend occurred in planning activities to be adaptive
Indictor 4.3. Ability to resolve conflicts and mediate between stakeholders	CMO leaders skilled in resolving conflicts and perceived to be just
Indictor 4.4. Monitoring activities and ecosystem conditions	CMO regularly discusses monitoring results and uses this in decisions, and this is documented in its minutes

Resource mobilization (finances) - sufficient funds and in-kind support need to be ensured for a CMO to implement planned NRM, cover the costs of any protection measures such as guards, and for the CMO itself to function. This includes: resource mobilization capacity (including proposal writing), securing regular funds/in-kind sources (as diverse as entry fees, endowments, fishing fees, payments for ecosystem services, and use rights in other public lands).

Table 3.5 Indicators and measures for criterion 5: Resource mobilization

Indicator	Measure
Indicator 5.1. Resource mobilization capacity	CMO has a realistic written "business plan" (income and expenditure plan including how to raise funds) designed to cover its functioning and planned actions.
Indicator 5.2. Securing regular fund/in-kind sources	CMO has sufficient regular funding to meet its needs for functioning and delivering planned actions

3.2 Assessments

Six rounds of assessments were conducted during: July-August 2013, November 2014-February 2015 (recorded as the 2014 survey), September-October 2015, August-October 2016, August-September 2017, and May-June 2018. The format used in 2014-17 was based on the indicators explained in section 3.1 and is reproduced in Annex 1. Assessments were conducted at approximately 12 month intervals, except that the more extensive baseline survey in 2013 took longer to analyze and then to develop based on that a simplified set of indicators, resulting in the 2014 assessment being slightly delayed, and in 2018 the assessment was brought forward to fit with closing down and final reporting on CREL project.

Monitoring, governance and livelihoods officers at the regional level were oriented in the use of the scorecards, and so far as possible monitoring officers (not directly involved in implementing CMO capacity building) undertook the assessments. This involved visiting the CMO office for a few hours in one day to check its records and discuss with the office bearers and other executive members their experience over the previous year following the scorecard. In the last rounds of assessments in some but not all cases the assessment was done by also involving leaders of CMOs in cross visits along with the CREL staff, to develop the capacity and understanding of CMO leaders in critically reviewing each other's performance and status as a form of peer pressure, and as a preparation for self-assessment when project support ends. Completed data in spreadsheet format was shared with the team advising on co-management and CMO capacity for checking, all formats were ultimately checked by the senior co-management advisor to ensure consistent interpretation of scoring based on appropriate evidence, which entailed a series of checks and explanations and adjustments with the regional and field staff. This ensured there were no systematic under or over reporting biases, and that data from each region and type of CMO are comparable.

For the purpose of comparisons with the CMO assessments conducted each year 2014-17, the more detailed data from 2013 was re-worked and clustered under the same criteria and indicators, but with a

different set of operational measures for each indicator. While these are not a direct match with the measures used in subsequent assessments, for most indicators they were similar or included the measure used later as well as other measures. It was felt this provides some useful comparison with later years for the analysis in Chapters 5 and 6, although this has to be qualified, the larger set of measures used in the 2013 assessment for example tended to rate organizational functioning higher than the more focused set of measures used in subsequent years.

3.3 Other sources of data and evidence

The on-line database for performance monitoring of CREL, known as CrelLink, was used to track details of the membership of CMOs, contact details, training provided to the CMOs, grants provided to CMOs and related activities implemented, including actions to improve biophysical conditions, as well as request made by CMOs to government agencies for support.

Separate and detailed monitoring and recording of the CMO grants program was developed, and the overall process of awarding and tracking grants, as well as the level of coverage are detailed in Section 4.2. Similarly support to CMOs for construction was managed through a process summarized in Section 4.3, and this generated documentation of the condition of sites before physical works (by CREL staff), the proposal for works (by the CMO), and then of the completed construction (by the supervising engineers – Module), but did not generate data on the use of facilities developed through direct support.

CHAPTER 5 DEVELOPMENT AND STATUS OF FOREST CMCS

5.1 Southwest Region

There are five Co-Management Committees (CMCs) supported by CREL in southwest Bangladesh, each with its associated council, people's forum, village conservation forums and community patrol groups. Of these, four CMCs are linked with four forest ranges of the Sundarbans Reserved Forest and associated parts of the Sundarbans ECA, these were formed in 2010 and 2011 through the IPAC project, and continued to receive capacity building support through CREL, hence two were eight years old and two were seven years old at the time of the last capacity assessment in May 2018 (Table 5.1). By comparison Tengragiri CMC, which supports Tengragiri WS, is geographically and ecologically distinct as the forest is largely planted mangroves separate from the Sundarbans, and this CMC was formed with support from CREL in February 2015 and thus was little more than three years old at the time of the last assessment.

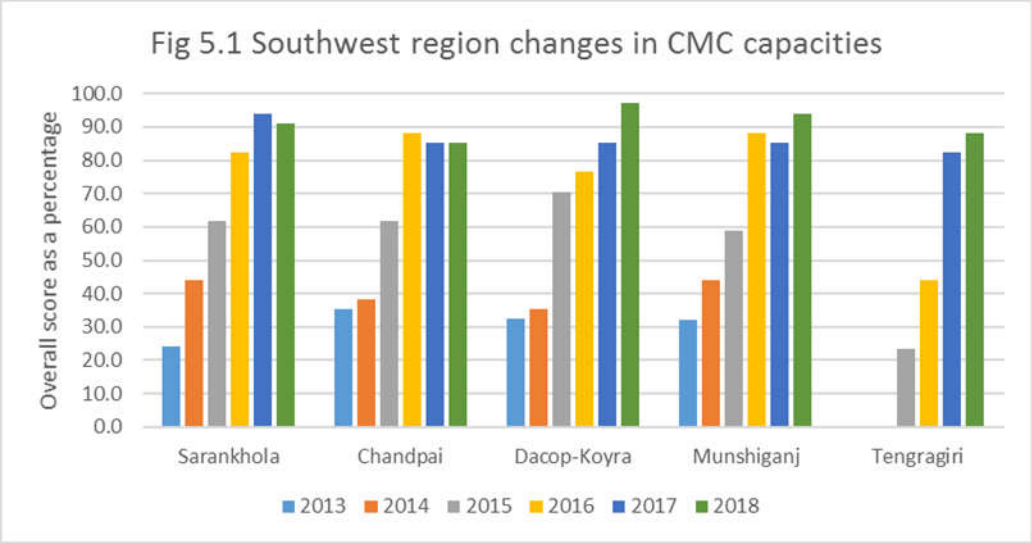
Table 5.1 Overview of Co-Management Committees in Southwest region

CMC	Date founded	2018 members	Training under CREL (CMC courses)		Total grants received (Tk mill)	Total constr-uction (no. actions)	No. villages covered	Context and notable activities/ achievements
			No	% topic*				
Sarankhola	Apr 2010	27	21	91	32,927	1	21	Helps protect 145,601 ha of Sarankhola range in Sundarbans mangrove forest, notable for Tiger, Ganges River and Irrawaddy Dolphins, and Masked Finfoot. CMC: campaigns against fishing using poison
Chandpai	Feb 2010	29	17	91	49,773	7	34	Helps protect 97,444 ha of Chandpai range in Sundarbans mangrove forest, notable for Tiger, Ganges River and Irrawaddy Dolphins. 2 dolphin sanctuaries in area. CMC: lobbying against sand extraction, operating a tourist boat
Dakop-Koyra	Nov 2011	29	26	82	32,325	9	78	Helps protect 170,610 ha of Chandpai range in Sundarbans mangrove forest Including Sundarban South WS, notable for Tiger, Saltwater Crocodile. CMC: mangrove restoration, nursery operation
Munshigonj /Satkhira	Aug 2011	29	31	82	49,160	4	78	Helps protect 182,664 ha of Satkhira range in Sundarbans mangrove forest, notable for Tiger, Saltwater Crocodile. CMC: Mangrove restoration, tourist cottage joint venture
Tengragiri	Feb 2015	22	13	73	29,753	3	17	Helps protect 4,048 ha mangrove forest WS notable for Fishing Cat. CMC: Fish sanctuary, persuading people not to persecute crocodiles

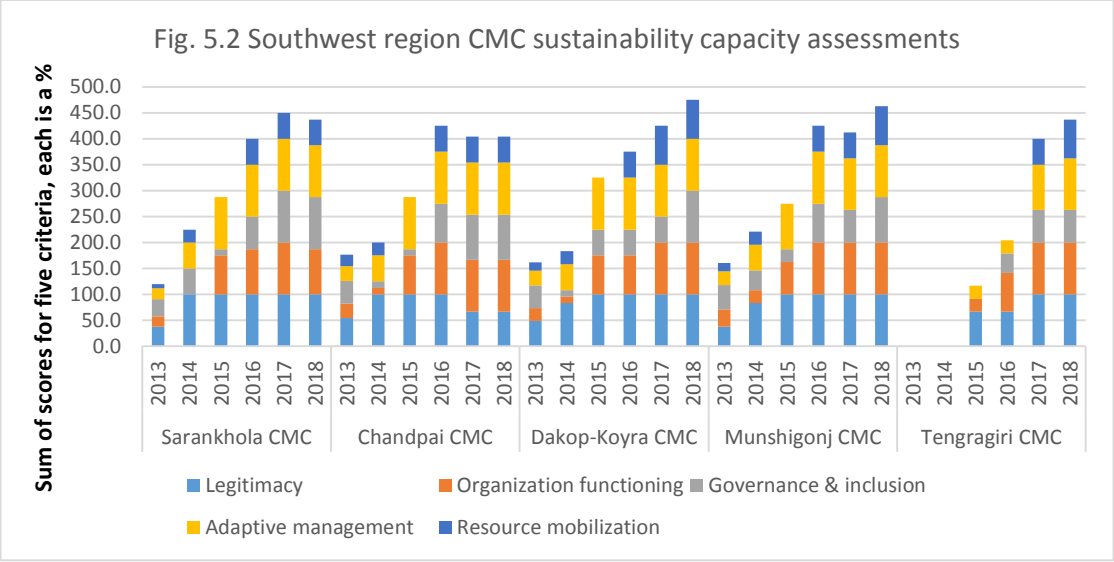
Note: totals are up to November 2017
* out of 11 topics (training titles) offered by CREL

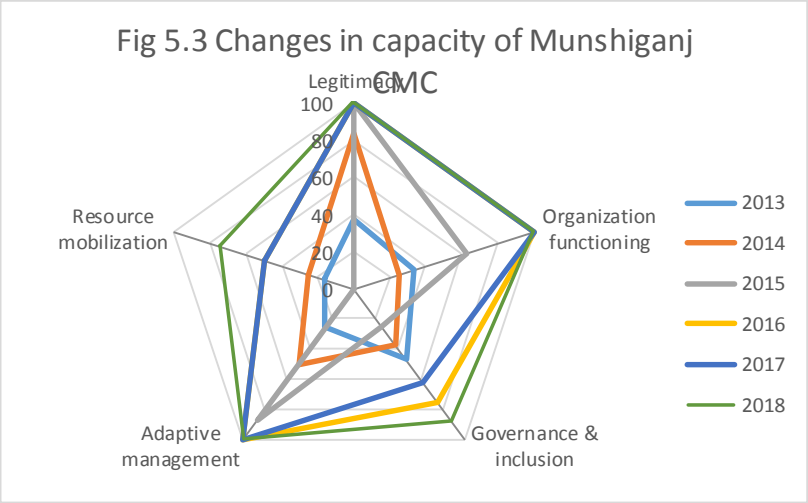
Despite some variation in age among the four Sundarbans CMCs, all four were found to be in a limited stage of capacity with a low probability of sustaining without project support in 2013. All four have followed similar trajectories of building capacity in the following five years (Fig 5.1). By comparison, Tengragiri CMC (which did not exist in 2013 and 2014) has rapidly built capacity,

reaching a similar level to the other CMCs by 2017. In part this reflects learning in CREL capacity building support, and common initiatives in training and grants; in part this may over-estimate sustainability as this CMC has yet to experience the substantial changes in council and committee membership that are mandated after four years.



Changes in capacity components are shown in Fig 5.2, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus reported out of 500 in total). In general this shows high existing legitimacy from the outset (reflecting the official status of the CMCs but also cooperation from for example Union Parishads), achieving basic organizational functioning from 2015 onwards (although this partly depends for its sustainability on CMCs being able to afford the services of their administration assistants), improving adaptive management such as planning and conflict mediation since 2015, and from 2016 achieving governance improvements such as active roles for women in sub-committees. Although CREL enhanced its initiatives to help CMCs mobilize external resources from 2016, this has achieved partial impacts and remains a challenge. It takes time to help CMCs build sustainable income flows to support their conservation initiatives and basic operations.





As a more detailed example of the changes, and fluctuations, in assessed capacity over six years, Fig 5.3 summarizes the assessments for Munshiganj (Satkhira Range) CMC. Smaller differences and fluctuations in scores between years reflect some judgements in assessing capacity, for example this CMC explained its intentions for raising funds in 2014, but when these were more formulated and reviewed in 2015 they were found to be unrealistic, while by 2017 and 2018 it had developed and started to follow a "business" plan which was generating some funds to contribute towards its recurring costs. Other fluctuations arise from time bound CMC actions, for example the CMC involved one of its women members as chair of a project implementation committee thereby enhancing its rating for inclusive governance, but when that project was completed it no longer had any women in decision making roles. However, in general this CMC, and the others in the region, have consolidated and demonstrated a set of key competencies and capacities over two years (2016 and 2017) which gives optimism that they will be able to sustain with limited external assistance provided resource mobilization can improve. For example in the 2018 assessment: "The CMC has earned BDT 42,000 from car parking fee and next year the income will increase from this and other visitor facilities. The CMC submitted an application to the local Member of Parliament and he agreed to allocate some fund. Also the CMC is earning some funds to cover its regular costs from operating a revolving fund."

5.2 Northern Region

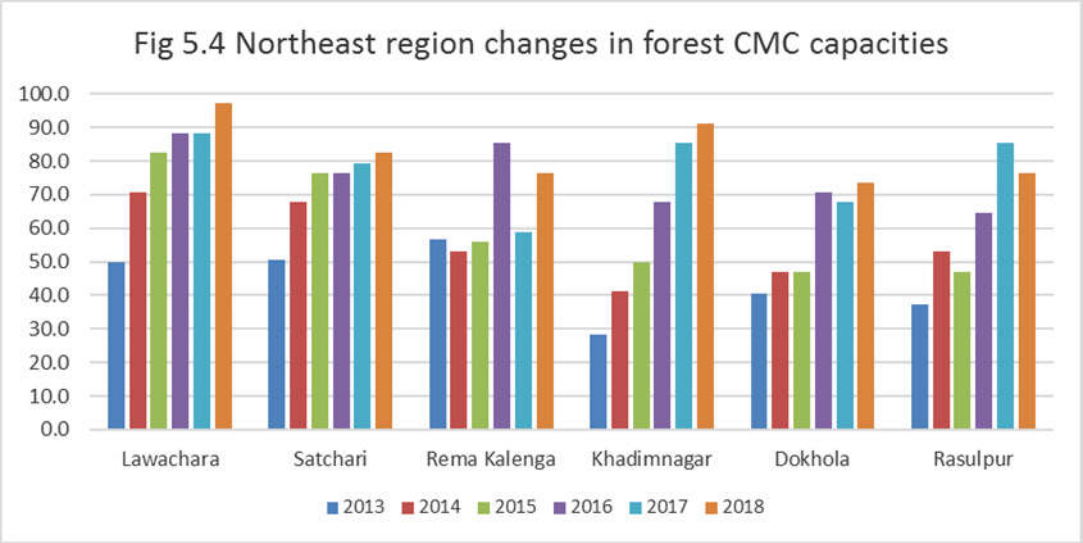
There are seven Co-Management Committees (CMCs) supported by CREL in north and northeast Bangladesh, each with its associated council, people's forum, village conservation forums and community patrol groups. Of these, four CMCs are in the northeast proper (Habiganj, Moulvi Bazar and Sylhet Districts), where they are linked with four protected areas in semi-evergreen hill forests. Two CMCs (Dokhola and Rasulpur (also known as Jaus)) are associated with the two ranges in the deciduous Sal forest of Modhupur National Park (mostly in Tangail District). One – Ratargul CMC - was newly formed in 2017 for the recently protected swamp forest in Ratargul Special Protection Area and was only assessed as a baseline in 2018, so it is not discussed further. Three of these CMCs are among the oldest in Bangladesh having been formed through the Nishorgo Support Project in 2005-6 and were thus over 12 years old at the time of the 2018 assessment, while the other three CMCs were formed during IPAC in 2009-11 and were about eight years old by the 2018 assessment (Table 5.2).

Table 5.2 Overview of Co-Management Committees in Northern region

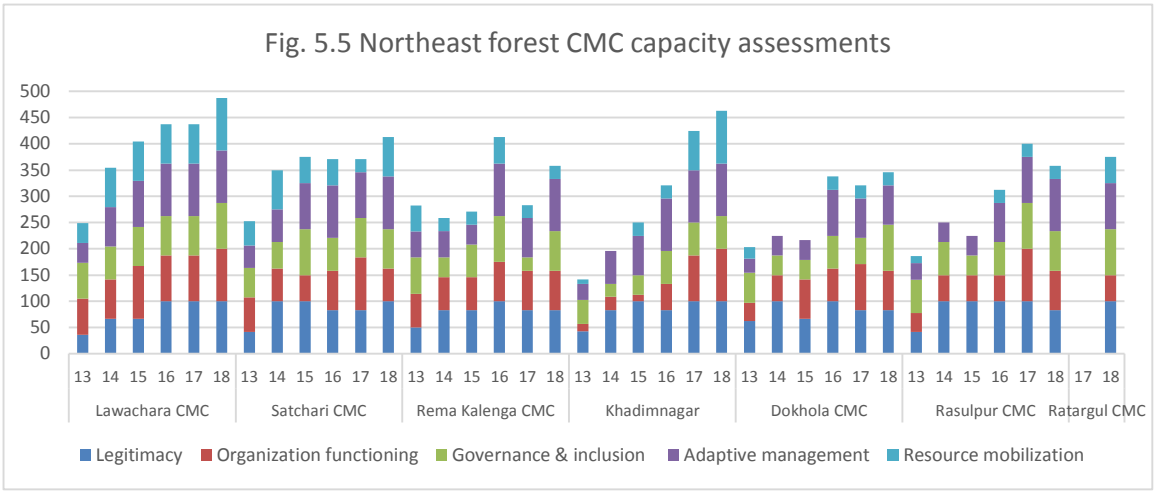
CMC	Date founded	2018 members	Training under CREL (CMC courses)		Total grants received (US$)	Total constr-uction (no. actions)	No villages covered	Context and notable activities/ achievements
			No	% topic*				
Lawachara	Oct 2005	29	10	64	45,556	6	30	Helps protect 1,250 ha NP, semi-evergreen forest, notable for threatened primates including Western Hoolock Gibbon. CMC: sustainable and sufficient funding for core activities from visitor fees due to high visitor levels
Satchari	May 2006	26	9	55	49,160	8	38	Helps protect 243 ha mixed evergreen forest notable for threatened primates such as Capped Langur. CMC: substantial visitor numbers developing enterprise based facilities, trying to reduce wildlife casualties on road through NP
Rema-Kalenga	May 2006	29	9	55	21,888	4	45	Helps protect 1,795 ha semi-evergreen forest, notable for colony of threatened White-rumped Vulture, primates and Black Giant Squirrel. CMC: visitor numbers are few due to remoteness, so CMC started providing productive assets to local people to earn a fee from their enterprises
Khadminagar	Oct 2009	22	11	55	43,460	15	22	Helps protect 678 ha NP, evergreen forest and plantations, notable for Capped Langur and Kalij Pheasant, bordered by six tea estates. CMC: adventure tourism generating fund for CMC, effective conservation without CPGs
Dokhola	Dec 2010	29	11	64	46,528	3	15	Helps protect 2,087 ha of deciduous sal forest notable for Capped Langur. CMC: limited activities – directing social forestry to some of local ethnic minorities
Rasulpur (Jaus)	Jan 2011	29	9	46	50,754	12	21	Helps protect 6,349 ha of deciduous sal forest notable for Capped Langur. CMC: limited activities – directing social forestry to some of local ethnic minorities

Note: totals are up to November 2017
* out of 11 topics (training titles) offered by CREL

CMC capacity and sustainability is partly a product of experience and continued operation as a CMC. For example, those CMCs with a longer history had a greater capacity than those CMCs that were no more than three years old in 2013, as shown in Fig 5.4 where the overall capacity of the three oldest CMCs in 2013 (on the left) was noticeably greater than that of the three younger CMCs at the start of CREL. Yet by 2018, when the youngest of these CMCs were about seven years old, there was little difference in their sustainability indicators based on CMC age, and Khadminagar had overtaken two of the older CMCs.

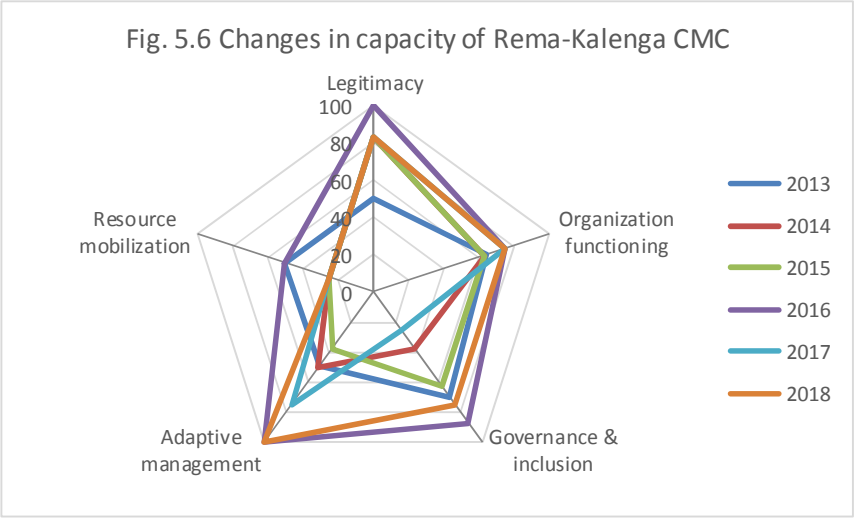


Changes in capacity components are shown in Fig 5.5, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus are reported out of 500 in total). In general this shows that the three older CMCs in the first year of CREL were operating at about half of the potential capacity in each of the five thematic areas (including relatively weak legitimacy reflecting a lack of initiatives with for example Union Parishads). The three younger CMCs were notably weak at that stage with achieving no more than half of potential capacity in each criteria, but within two years Lawachara and Satchari CMCs had addressed most of these gaps – for example strengthening links with Union Parishads, improving record keeping, planning, and inclusivity in governance (Rema Kelenga CMC is discussed more below). The three more recently established CMCs had lower capacities in 2013 than the older CMCs, but by 2016 had largely caught up, the main difference between Khadimnagar CMC and the two CMCs in Modhupur NP is the stronger financial position of Khadmingar based on development in 2017 onwards of visitor entry fees and adventure related enterprises, equivalent initiatives are yet to be taken up by the Modhupur CMCs despite their potential for this site which is readily accessible from the district town of Mymensingh. Note that these improvements in capacity are comparable to those in other regions, although the number and diversity of training events provided to these CMCs were lower than in the other regions.



As an example of capacity development, in the 2018 assessment of Khadimnagar CMC it was reported that it addressed a conflict over cattle grazing in the NP by workers from a nearby tea garden.

The CMC organized a special sharing meeting and resolved the issues which will improve forest regeneration.



These CMCs also show that capacity development is not always a linear progression of advancement, Rema-Kalenga CMC was assessed in 2017 to be weaker than in the previous year. Although it appears to have recovered somewhat in 2018, in practice it has been more or less static in its capacity since 2013. This is largely due to weak and poorly inclusive governance and to weak potential and initiative for generating funds to sustain activities (Fig. 5.5). In this CMC there has been no election of CMC office bearers since 2013. In 2017 no women or poor persons held any decision making positions, compared with 2016 when a poor women chaired their project implementation committee, and 2018 when a woman chaired the project implementation committee and a poor man chaired more than one sub-committee.

5.3 Chittagong Region

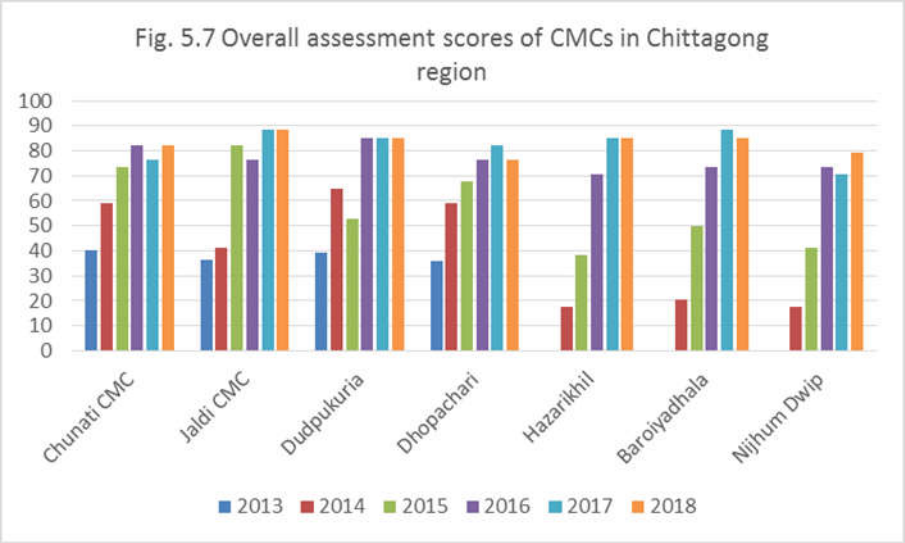
There are seven Co-Management Committees (CMCs) supported by CREL in the Chittagong region, each with its associated council, people's forum, village conservation forums and community patrol groups, see Table 5.3 for summary information. Of these, the two CMCs covering the largely degraded forest on low hills in Chunati WS (Chunati and Jaldi) are among the oldest in Bangladesh having been formed through the Nishorgo Support Project in 2005-6 and were thus over 12 years old at the time of the 2018 assessment. The two CMCs supporting conservation of hill evergreen forest bordering the hilltracts region in Dudpukuria-Dhopachari WS (Dudpukuria and Dhopachari) were formed during IPAC in 2009-11 and were about eight years old by the 2018 assessment. The other three CMCs were newly formed during CREL project and thus were only 4-5 years old at the time of the 2018 assessment. Two of these (Baroiyadhala and Hazarikhil) are active in adjacent hill evergreen forest protected areas of the same names, which are relatively accessible and have been able to make use of lessons from co-management in similar PAs. One CMC (Nijhum Dweep) is located in a very different ecosystem – a relatively remote island with planted mangroves and adjacent newly accreting islands and inter-tidal ecosystems of mudflats and grassy chars, of international importance as a coastal wetland for waterbirds, and with about 30,000 people living within the NP on a cyclone prone island.

Table 5.3 Overview of Co-Management Committees in Chittagong region

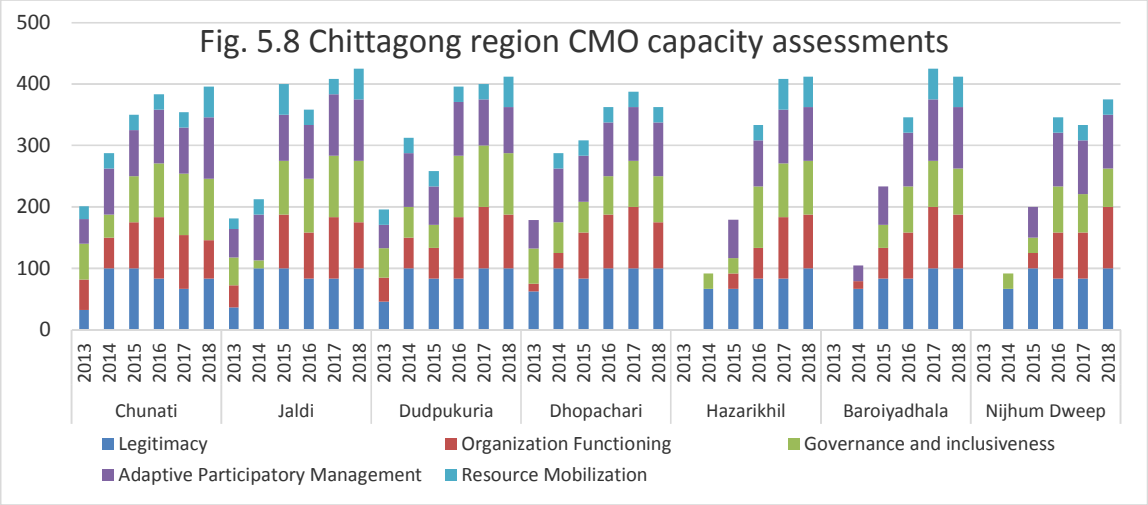
CMC	Date founded	2018 members	Training under CREL (CMC courses)		Total grants received (US$)	Total constr-uction (no. actions)	No villages covered	Context and notable activities/ achievements
			No	% topic*				
Chunati	Aug 2005	29	21	91	53,530	3	35	Helps protect 3,332 ha within WS, degraded evergreen forest, notable for Asian Elephant and Hog Badger. CMC: restoring forest in some patches.
Jaldi	July 2006	27	21	100	62,452	3	26	Helps protect 4,432 ha within WS, degraded evergreen forest, notable for Asian Elephant and Hog Badger. CMC: CPGs active seizing illegal logs and freeing captured animals.
Dudpukuria	May 2011	27	28	100	58,251	6	21	Helps protect 1,721 ha of WS, tropical evergreen forest, notable for Asian Elephant and high biodiversity. CMC: remote so few visitors, CMC providing productive assets to local people to earn a fee, reducing illegal logging.
Dhopachari	Nov 2009	27	17	100	33,844	1	15	Helps protect 2,996 ha of WS, tropical evergreen forest, notable for Asian Elephant and high biodiversity. CMC: remote so few visitors, CMC providing productive assets to local people to earn a fee, reducing illegal logging.
Hazarikhil	Nov 2014	26	14	91	49,894	16	23	Helps protect 2,908 ha WS evergreen and semi-evergreen forest, notable for Serow and Great Slaty Woodpecker. CMC: started adventure tourism, camping and food corner generating funds.
Baroiyadhala	May 2013	29	15	82	51,408	9	24	Helps protect 2,933 ha NP, evergreen and semi-evergreen forest, notable for Serow and Dhole. CMC: developing tourism facilities (camping, boating) and enterprises, CPGs active in seizing illegal logs.
Nijhum Dwip	Sep 2014	23	16	91	39,411	0	22	Helps protect 16,352 ha of intertidal mudflats and planted mangroves, notable for wintering Indian Skimmer, threatened shorebirds, and estuarine fishery. CMC: established fish sanctuary, issuing cyclone warnings, rescuing injured Spotted Deer.

Note: totals are up to November 2017
* out of 11 topics (training titles) offered by CREL

While in general CMC capacity and sustainability is partly a product of experience and continued operation as a CMC, in this region there was no difference in capacity among existing CMCs that were older or more recent in the baseline survey of 2013, as shown in Fig 5.7 where the overall capacity of the four CMCs on the left was similar in 2013. In addition by 2018 there was little difference in their sustainability indicators based on CMC age, and the three CMCs formed during CREL were operating at a similar level to and appeared to be as sustainable as the older CMCs.

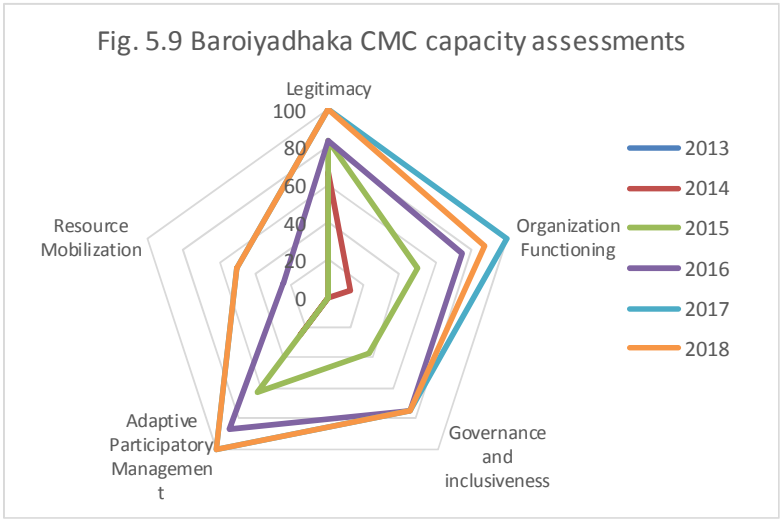


Changes in capacity components are shown in Fig 5.8, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus are reported out of 500 in total). This shows no notable difference between the two CMCs dating back to NSP and the two that were formed during IPAC (left had four CMCs) in the first year of CREL when they were operating at only 40% of the potential capacity overall (including relatively weak legitimacy reflecting a lack of initiatives with for example Union Parishads, very weak organizational functioning and very little resource mobilization capacity). The three younger CMCs were not assessed in 2013 – two were not formed until 2014 and one had only been formed a few months before the assessment. The patterns of capacity development of the four older CMCs each differ according to local initiatives. While Chunati CMC gradually strengthened, in particular its organizational functioning and governance, nearby Jaldi CMC stagnated and was close to being non-functional in 2014, then made major changes in 2015 to address its governance weaknesses and thereafter remained at the same level. By comparison Dudpukuria CMC improved participatory management and legitimacy (UP support) in 2014, went backwards in 2015, but in 2016 made major changes to address most of its weaknesses, whereas Dhopachara CMC made more gradual improvements in organizational functioning and inclusive governance for four years to 2017.



The three CMCs formed during CREL all had as should be expected very low capacity in 2014, ad followed similar trajectories of capacity building over a three year period to 2017, with little change in

2018 (see discussion of Baroiyadhala below). The one difference is that Nijhum Dweep CMC appears slightly less capable/less sustainable, despite a similar level of training support. This reflects its remote location with limited services and opportunities available on the island which make resource mobilization a challenge, even though it is a very attractive location for specialist tourism, and associated limited initiatives to develop facilities or income earning opportunities.



The example of Baroiyadhala CMC (Fig. 5.9) shows a typical pattern of capacity development over a five year period (the CMC had only just been formed in 2013 so it was not assessed in that year). The initial emphasis was on establishing the CMC and its recognition by FD and local government (hence legitimacy is the first capacity developed). By 2015 (as part of project level programs for planning and developing involvement in resource management capacity) in adaptive participatory management had developed and the organization was functioning to some extent. By 2016 there was progress in all five dimensions, and with elections being due and having been held for example there was major progress in good governance and women or poor persons held decision making positions. By 2017 the organization was functioning well and independently, and there was at least an informal plan for mobilizing resources. There was no substantive change in 2018 (the 2018 line is superimposed on the 2017 line for four out of five dimensions hiding the 2017 line). While this indicates the CMC can continue to function at this level, its continued poor capacity in resource mobilization is a threat – although this CMC has made progress in developing some enterprises (including eco-tourism and transport related) to generate funds the receipts up to 2018 were substantially less than required for operating costs and essential activities identified by the CMC.

5.4 Cox's Bazar Region

There are seven Co-Management Committees (CMCs) supported by CREL in the Cox's Bazar region of furthest southeast Bangladesh, each with its associated council, people's forum, village conservation forums and community patrol groups. Of these, the three CMCs covering the largely degraded forest on steep hills in Teknaf WS (Teknaf, Shilkhali and Whykeong) are among the oldest in Bangladesh having been formed through the Nishorgo Support Project in 2005-6 and were thus over 12 years old at the time of the 2018 assessment (Table 5.4). The other four CMCs were formed during IPAC in 2009-10 making them 8-9 years old at the time of the last assessment. These four CMCs comprise two in evergreen forest with tall stands of Garjan trees in adjacent PAs north of Cox's Bazar town (Fasiakhali and Medakacchapia), and two (Himchari and Inani) in more degraded forest land south of Cox's Bazar Town between the town and Teknaf WS. The last of these is an exception in several ways – the forest was proposed as a NP but it has never been formally designated and remains a Reserved Forest, co-management has largely been supported by separate initiatives led by the Arannayk Foundation (established with US support) with very limited support from CREL. Also, like several other CMCs in this region, since August 2017 the remaining forest and secondary scrub in Inani has been under even more severe pressure to meet fuelwood needs of almost a million Rohingya refugees.

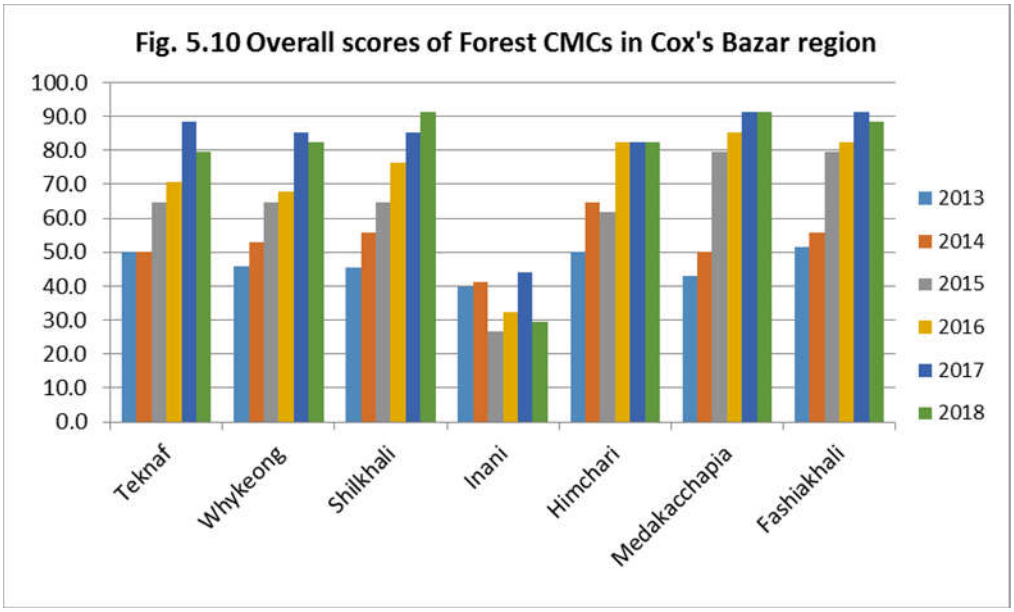
Table 5.4 Overview of Co-Management Committees in Cox's Bazar region

CMC	Date founded	2018 members	Training under CREL (CMC courses)		Total grants received (US$)	Total constr-uction (no. actions)	No villages covered	Context and notable activities/ achievements
			No	% topic*				
Fasiakhali	Dec 2009	29	27	100	75,078	5	30	Helps protect 1,302 ha WS, evergreen forest, notable for Asian Elephant. CMC: reducing illegal logging, providing productive assets to local people to earn a fee
Medaka-cchapia	Nov 2009	27	29	100	51,130	4	13	Helps protect 396 ha NP, evergreen forest notable for mature garjan trees. CMC: planting garjan seeds.
Himchari	Jul 2010	29	24	91	58,504	8	35	Helps protect 1,729 ha NP, mostly degraded forest notable for high tourism use and visited by Asian Elephant. CMC: issuing cyclone warnings, facing pressure from Rohingya refugees
Inani	Nov 2009	29	4	36	0	0	21	Helps protect 7,700 ha reserved forest, degraded evergreen forest, notable for Asian Elephant. CMC: limited activities, facing additional pressure from Rohingya refugees
Whykeong	Aug 2005	29	17	91	69,814	10	39	Helps protect 2,610 ha within WS, evergreen forest largely degraded, notable for Asian Elephant and culturally significant cave. CMC: issuing cyclone and landslide warnings, facing heavy pressure from Rohingya refugees
Shilkhali	Sep 2006	29	13	73	70,691	13	32	Helps protect 2,956 ha within WS, evergreen forest largely degraded, notable for Asian Elephant and Great Slaty Woodpecker. CMC: reducing illegal logging, small enterprise development, tourism development, but facing pressure from Rohingya refugees
Teknaf	Aug 2006	29	16	91	60,722	14	48	Helps protect 6,048 ha within WS, evergreen forest largely degraded, notable for Asian Elephant and Great Slaty Woodpecker. CMC: issues landslide warnings, small enterprise development, tourism development, but facing pressure from Rohingya refugees

Note: totals are up to November 2017
* out of 11 topics (training titles) offered by CREL

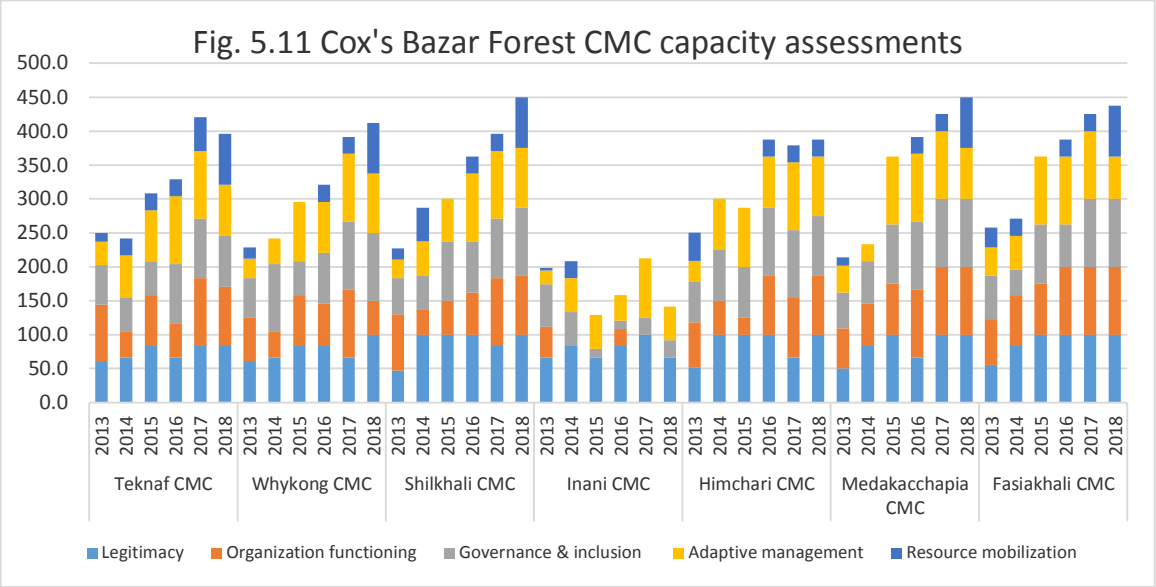
Although CMC capacity and sustainability might be expected to be influenced by experience and continued operation as a CMC, there was no notable difference in capacity between the older and younger CMCs in this region in 2013 – all were considered to be just below half of their potential capacities needed for sustainability, as shown in Fig 5.10. Also by 2018 there was little difference in the sustainability indicators of six CMCs – three dating back to NSP and three formed under IPAC. As noted above the anomaly is Inani CMC which may be considered a "control" site in the sense that the CMC received minimal training from CREL compared with other CMCs and no grants or

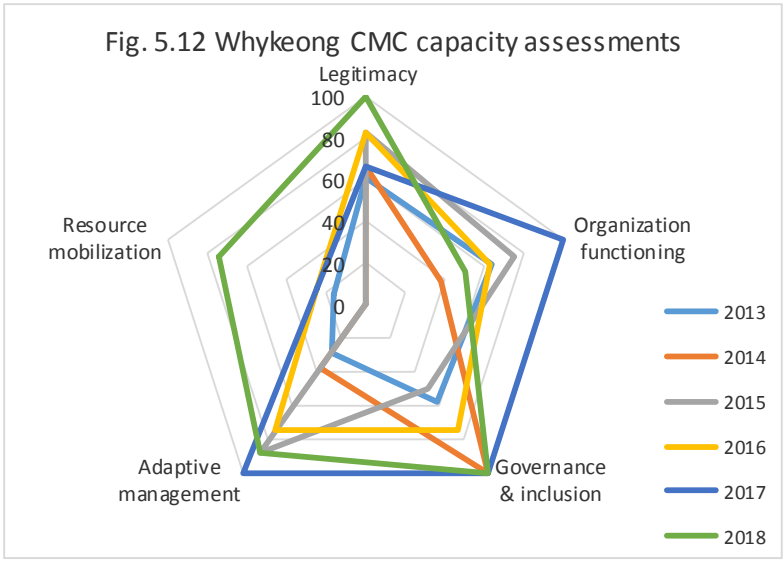
construction support, the level of support provided by Arannayk Foundation has not been documented but is presumably small since little change (even a small decline) in the CMC capacity was recorded.



Changes in capacity components are shown in Fig 5.11, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus are reported out of 500 in total). This shows no notable differences in the pattern of capacity development between the three CMCs dating back to NSP (left most three) and the three that were formed during IPAC and received active support from CREL (right most three CMCs), the exception of Inani CMC is discussed separately. Initially governance, adaptive management and resource mobilization capacities were all very weak. Legitimacy gaps were for the most part addressed in the first year of support by helping to strengthen links with and requests for support from Union Parishads. Capacity changes were similar over time correlating with project capacity building activities which tended to have common elements based on the average assessments of CMCs in a region, and were more similar for adjacent CMCs which faced similar local challenges and opportunities and where field staff of CREL followed similar approaches. For example, in 2015 there was a common initiative to strengthen adaptive management capacity, this included making use of participatory vulnerability assessment, and encouraging CMCs to share information on hazards including disseminating warnings. In 2017-18 when the most common remaining gap in CMC capacity and greatest priority for sustainability was financial resources, more emphasis was placed on helping CMCs develop plans to mobilize resources and make more realistic annual budgets, complemented by use of grants to help CMCs buy assets that they could lease or rent out as a source of income. Some variations exist between CMCs – among the six that CREL focused on the three in Teknaf WS (left most three in Fig 5.11) were relatively weak in their organizational functioning until 2017 – dependence on CREL staff for help in maintaining records for example although an obvious target for building CMC capacity took several years with these older CMCs that were used to relying on project staff for day-to-day assistance.

Inani CMC reveals a case of organizational stagnation and decay, for example organizational functioning and governance performance declined between 2013 and 2018, some adaptive management capacity was built based on limited training support and sharing of approaches promoted by CREL in other CMOs, but ultimately this CMC fell into two institutional gaps: the gap in responsibilities and coordination between two projects where neither made organizational capacity a high priority, and the gap in status where the forest is not formally a protected area and therefore did not have the same level of commitment and policy support to co-management even though this CMC is formally constituted by thee Forest Department.





The example of Whykeong CMC (Fig. 5.12) shows a typical pattern of capacity development over a five year period. The CMC had been formed in 2005 but was comparable to others in 2013 – meeting to some extent standards for its functioning and governance and legitimacy, but with little capacity in adaptive management or resource mobilization. The graph shows fluctuations within a generally strengthening capacity – for example although building capacity for CMCs to function without external support was a major aim of CREL, this CMC in alternative years worsened and improved this capacity – for example according to whether or not the CMC maintained records well or held meetings on time. By comparison governance, including holding elections and involving women and poor people in leading sub-committees, improved and then maintained a maximum level against the indicators in 2017 and 2018, and similarly adaptive management in planning, activities such as issuing cyclone and landslide warnings, and resolving local conflicts has sustained at a high level from 2015 to 2018. After five years of weak resource mobilization capacity, in 2018 this CMC had developed a realistic business plan for financing its key activities and needs, and was generating part of the required resources from enterprises and assets initiated with grants, as well as having a set of basic tourism infrastructure established through construction support. However, these gains are likely to be fragile because of variations in the basic functioning of the CMC (which may in future be affected by changes in executive body membership, and because of increasing threats that will be difficult to counter. As the CMC reported in 2018 "CPG members observed that Rohingya communities were destroying forest resources. According to their information CMEC discussed in the regular meeting about the issue and decided to protect the forest from Rohingya destruction."

CHAPTER 6 DEVELOPMENT AND STATUS OF WETLAND CBOS

6.1 Hail Haor

Eight Resource Management Organizations (RMOs) originally formed by MACH project were supported by CREL. These are community based organizations as explained in Section 1.3.2. All are located in Hail Haor – a large (up to 13,000 ha) mostly seasonal freshwater wetland in northeast Bangladesh which retains water in about 3,500 ha in the dry season. The RMOs were all formed during 2000-2003 (Table 6.1), making them the oldest CMOs under CREL. They received intensive support during MACH, but then very limited support. During CREL they had very little training (although some RMO leaders did join trainings that covered multiple RMOs/CMOs), only three received grants and four received construction support. Factors affecting this are the relatively small scale (numbers of villages) represented in RMOs, despite their aspirations to influence land and water management over substantial areas (Table 6.1); loss of rights over waterbodies prior to CREL; and their scope to access grants from existing endowment funds.

Table 6.1 Overview of Resource Management Organizations in Hail Haor

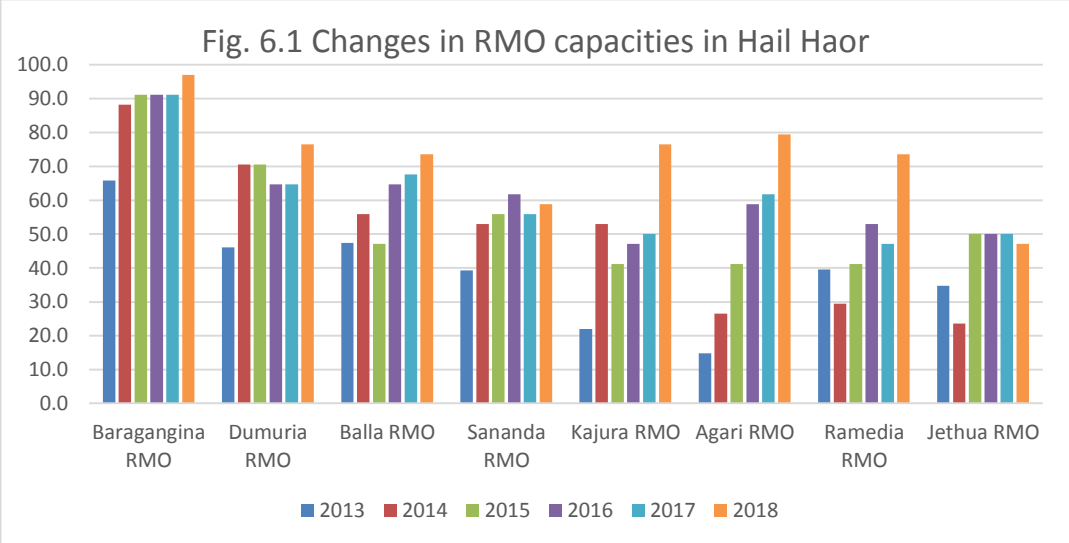
RMO	Date founded	2013 members	Training under CREL (CMO courses)		Total grants received (US$)	Total constr-uction (no. actions)	No villages covered	Notable activities/ achievements
			No	% topic*				
Baragangina	Jan 2002	42	1	9	15,047	2	3	Protects permanent wetland sanctuary of Baikka Beel (about 170 ha), with income from visitor fees. Promotes sustainable use of 2020 ha. Organized movement against aquaculture encroachment.
Dumuria	Dec 2000	38	0	0	10,000	1	3	Promotes sustainable use of 770 ha. Previously managed 5 waterbodies (58 ha)
Balla	Dec 2000	57	0	0	10,000	1	3	Promotes sustainable use of 508 ha. Previously managed 2 waterbodies (43 ha)
Sananda	Nov 2000	59	0	0	0	1	4	Promotes sustainable use of 1095 ha. Previously managed 1 waterbody (3 ha)
Kajura	Feb 2001	29	0	0	0	0	2	Promotes sustainable use of 993 ha. Previously managed 3 waterbodies (3 ha). From 2016-17 manages 2 beels (1.89 ha)
Agari	Mar 2001	60	0	0	0	0	3	Promotes sustainable use of 711 ha. Previously managed 2 waterbodies (30 ha). From 2016-17 manages 2 beels (6.71 ha). Planning freshwater turtle protection.
Ramedia	Oct 2003	56	0	0	0	0	4	Promotes sustainable use of 715 ha. Previously managed 5 waterbodies (13 ha). From 2016 manages 1 beel (0.55 ha)
Jethua	Nov 2000	60	0	0	0	0	6	Promotes sustainable use of 1345 ha. Previously managed 2 waterbodies (253 ha)

Note: totals are up to November 2017
Areas for sustainable use are mostly private land, waterbodies mostly leased to people outside RMO. Previous areas were up to 2011-12 when MoL did not renew agreements made under MACH.
* out of 11 topics (training titles) offered by CREL

In addition co-management bodies (committees constituted under Department of Fisheries circulars) exist in the two Upazilas covering these RMOs and Hail Haor, but their functioning has been irregular as has disbursement of grants from the endowment funds, and they were not assessed.

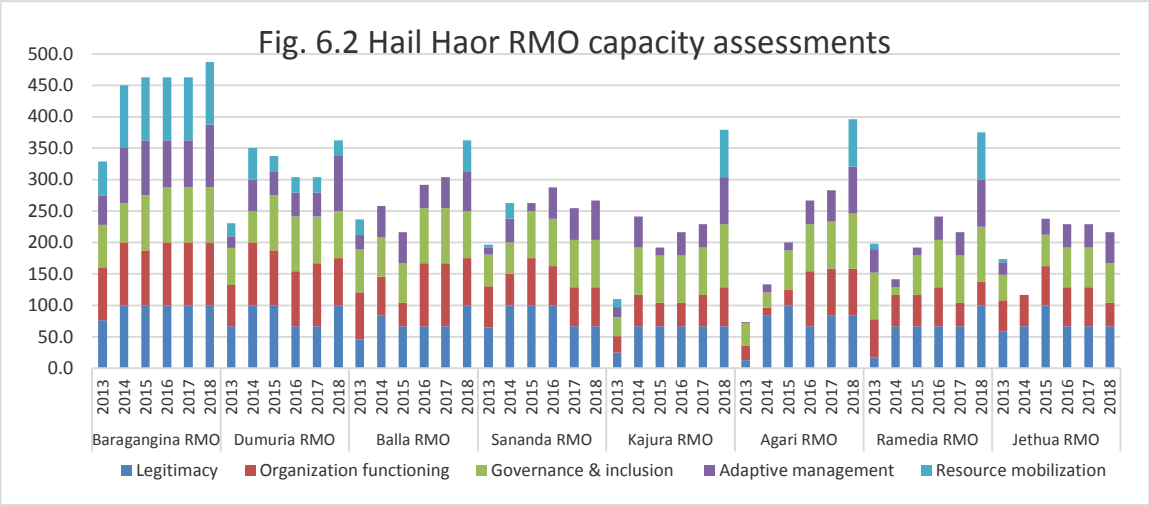
Given the very limited capacity building support and investment from CREL in these eight RMOs, the assessments reveal the impact of mentoring from limited staff time supporting and trouble-shooting for CMOs, CREL efforts at regional and policy levels to secure access to waterbodies, and of external factors on RMO performance that may be an indication of how other CMOs may perform after CREL.

Four patterns are shown by these eight RMOs (Fig 6.1). Baragangina RMO has managed Baikka Beel permanent wetland sanctuary since 2003, which is a "flagship" community wetland conservation site in Bangladesh frequently visited by officials and others due to its attractive wildlife (waterbirds) and scenery, visitor facilities (observation towers) and relative ease of access. This has incentivized the RMO which was functioning quite well without support but addressed some gaps with CREEL assistance in 2015. It also maintained access to resources from the endowment fund throughout this period (although the Upazila authorities stopped following the formal procedures for awarding grants to the RMO as set out by government and preferred to pay directly guards and other costs). Dumuria and Balla RMOs had functioned relatively well before CREL but lost access to waterbodies, they addressed some gaps with renewed advice and support from the project, but lacked the incentive of any right to manage a waterbody. Kajura, Agari and Ramedia RMOs were hardly functioning during the early period of CREL - they had been fragile during MACH due to factors such as elite domination and limited physical access to waterbodies, and lost the incentive of waterbody rights, some improvements in their capacity took place but were of limited relevance until they obtained actual rights to manage waterbodies in 2017-18, bringing a rapid reactivation of these RMOs. Lastly Sananda and Jethua have had similar experiences to the last three RMOs but did not receive rights to use waterbodies and so remain stagnant with limited scope to achieve any of their objectives.

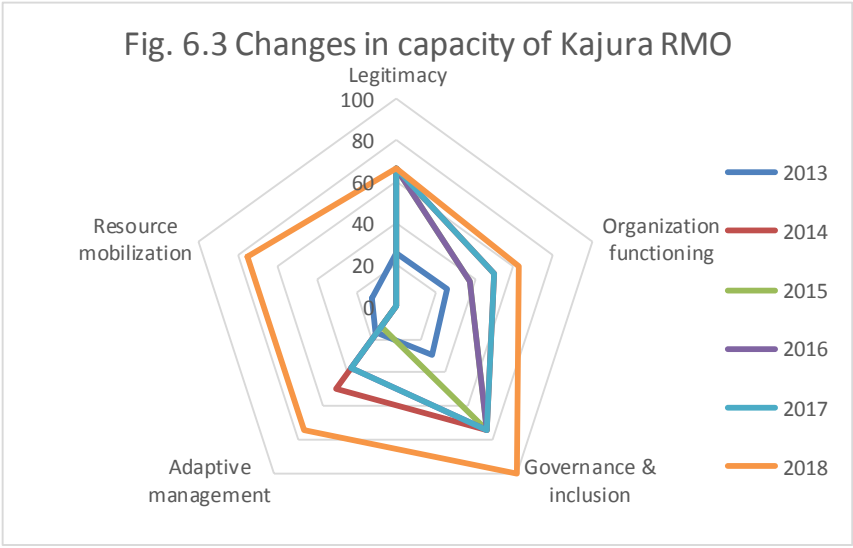


Changes in capacity components are shown in Fig 6.2, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus are reported out of 500 in total). Baragangina RMO mainly strengthened its capacity in adaptive management and resource mobilization in 2014 and then maintained its performance thereafter. In general the leap in capacity of RMOs that obtained rights to use and fish in waterbodies between the 2017 and 2018 assessments (Balla, Kajura, Agari and Ramedia) came from the scope to raise funds (by selling fishing rights and therefore the incentive to make resource mobilization and use plans, and also linked with this strengthened adaptive management performance. Without any waterbody rights in previous years there had been little

incentive or pint for these RMOs to plan any activities since they had no rights or influence, this was reversed once they received rights to even relatively small waterbodies. However, the organizational capacity of these RMOs did not change from 2017 and is a potential area of weakness due to their years of stagnation after losing waterbody rights around 2012, backstopping training and support would be helpful in this situation, particularly as all of the RMOs hardly received any training or capacity strengthening during CREL (Table 6.1).



These CBOs also show that capacity development is not always an even progression for all of the capacities. Kajura RMO despite being established for over ten years had a uniformly low capacity in 2013 (Fig. 6.3), in large part due to lack of incentives and opportunities to manage any part of the haor wetland. During 2014-17 with mentoring the RMO recovered and built its capacity in four of the five areas, less in organizational functioning, but not at all in resource mobilization since it had no opportunity to use resources. By 2018 there was a sudden change in capacity particularly in resource mobilization – after receiving rights to use a waterbody the RMO could not only collect fishing fees but also had a right to request funding from a purpose-built endowment left by the MACH project. Whether these gains will sustain depends on whether the Upazila committee will actually release grants to the RMO, and on how well the RMO addresses limitations in its day-to-day functioning.



6.2 Hakaluki Haor ECA

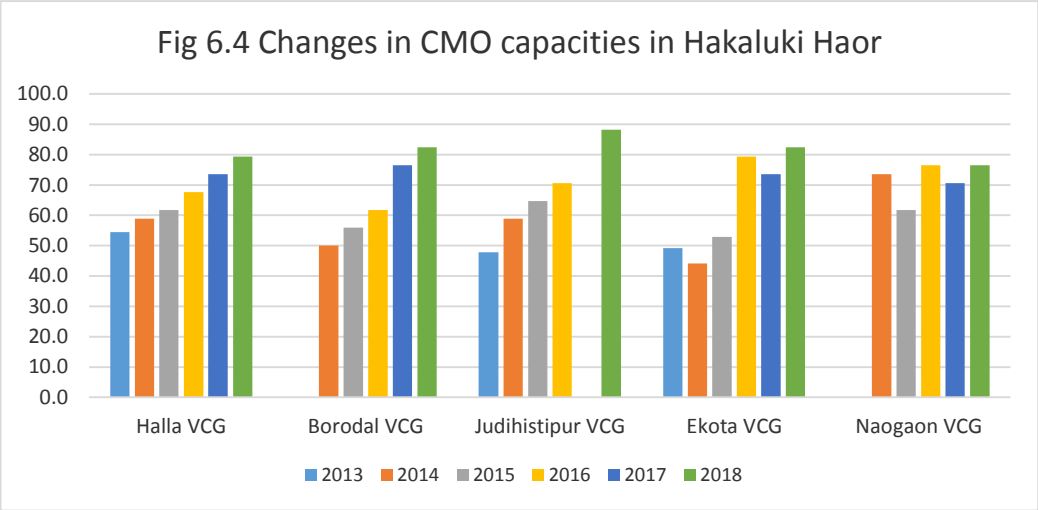
Out of 28 Village Conservation Groups (VCGs) within Hakaluki Haor, CREL focused on five. These are community based organizations as explained in Section 1.3.2. The five VCGs are located on two sides of the haor, with Ekota and Judhistapur protecting neighboring sanctuaries and swamp forest patches that together form a larger conservation area. In addition all of the VCGs were formed through previous DoE projects and had access to resources from other projects and from revolving funds during CREL for conservation and livelihood activities additional to those supported by CREL. Thus these VCGs ranged from over 12 years old to almost eight years old at the time of the 2018 assessment (Table 6.2). Significant areas of swamp forest are being restored by these VCGs, mostly trees planted before CREL and naturally regenerating thickets, but with additional areas planted by CREL – Ekota has the largest area of 295 ha, mostly regenerating areas, followed by Judhistapur's 186 ha of mostly regenerating thickets, Naogaon with 149 ha all planted in 2007, and Halla with 48 ha planted at different times between 2001 and 2014. All received some support from CREL as grants towards developing income generating assets and also towards guarding swamp forest and sanctuaries. Construction was a challenge in the haor and not all of the proposed interventions could be completed due to the short period of time.

Table 6.2 Overview of Village Conservation Groups supported by CREL in Hakaluki Haor

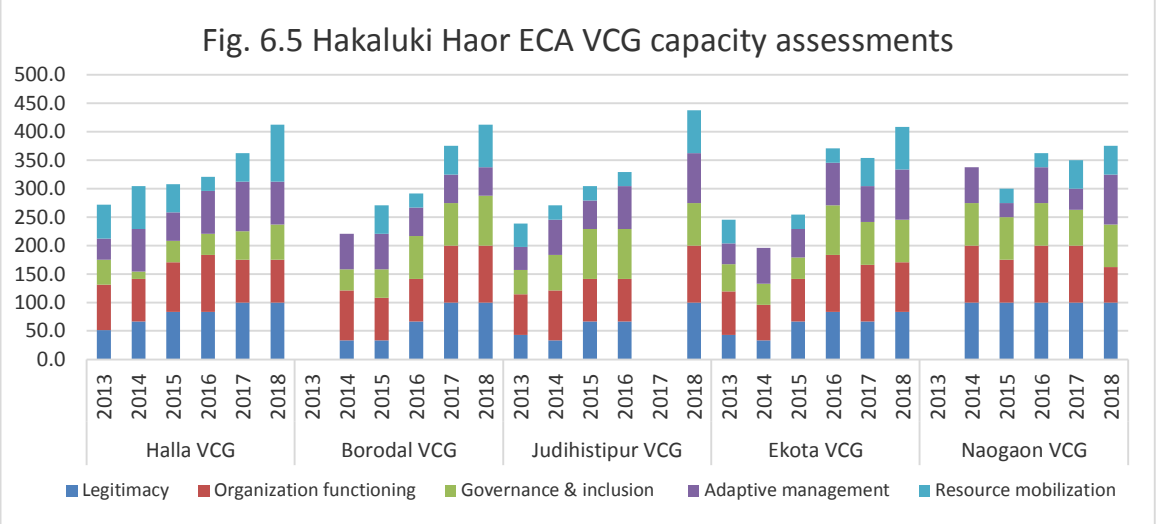
VCG	Date founded	2018 members	Training under CREL (CMO courses)		Total grants received (US$)	Total constr-uction (no. actions)	No villages covered	Notable activities/ achievements
			No	% topic*				
Borodal	May 2007	34	1	9	23403	1	1	Protects one wetland sanctuary of 160 ha. General local conservation, operating assets to generate income
Ekota	May 2006	38	5	27	23928	3	1	Protects two wetland sanctuaries and adjacent 295 ha of swamp forest
Halla	May 2006	25	0	0	37960	2	1	Protects waterbird roost in village grove, Koiyerkona wetland sanctuary and 48.7 ha of swamp forest. From 2017 manages 2 beels (11.14 ha)
Judhistapur	Oct 2009	32	0	0	38534	2	1	Protects three wetland sanctuaries and adjacent 186.4 ha of swamp forest. From 2017 also manages fishing in 1 group fishery (115 ha)
Naogaon	Dec 2010	31	5	18	21155	2	1	Protects extensive restored swamp forest area of 149 ha and Tolar wetland sanctuary

Note: totals are up to November 2017
* out of 11 topics (training titles) offered by CREL

CMO capacity and sustainability is partly a product of experience and continued operation as a CMO, and all of these VCGs were formed before the start of CREL but Naogaon and Judhistapur had only been established for 3-4 years in 2013 compared with the other VCGs which had been operating for 7-8 years by then. Despite these differences in age, there was no clear associated difference in capacity for the three VCGs with 2013 assessments (two were missed that year as it was unclear which of the Hakaluki Haor VCGs would be supported by CREL, while in 2014 one of the younger VCGs, Naogaon, appeared most capable and made little change in capabilities and sustainability over time. The other four VCGs all made a more or less steady progression in capacity up to 2018.

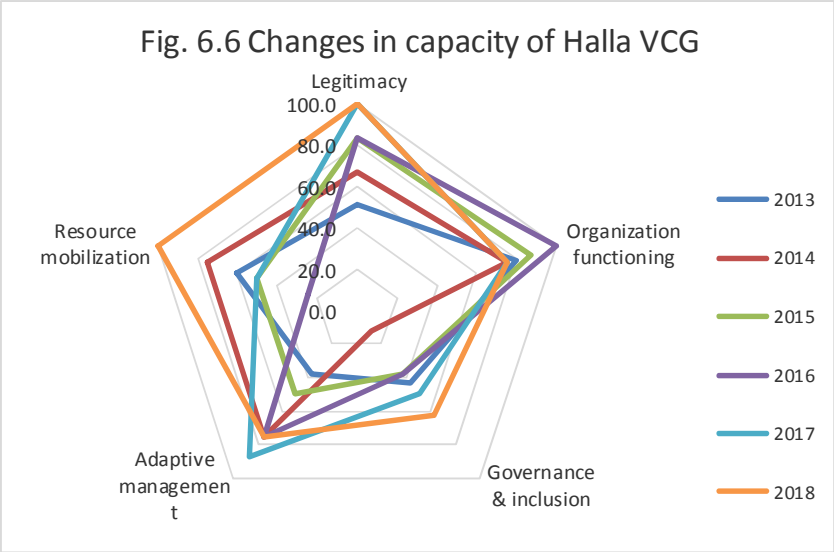


Changes in capacity components are shown in Fig 6.5, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus are reported out of 500 in total). In general this shows a similar pattern for the VCGs that enhanced their capacity: initially low recognition and legitimacy was improved as they joined Union ECA coordination committees and obtained UP support, governance and adaptive management generally improved. Resource mobilization was a weakness initially, but the VCGs had some capacity in early years from funds provided by other projects, and in 2018 improved considerably and showed an expectation of financial sustainability arising from plans developed and incomes from assets developed with CREL assistance.



These VCGs show how even small CBOs comprising largely of poor coastal villagers with limited education can develop and sustain functioning organizations in support of conservation and livelihoods. Halla VCG in 2013, about eight years after it was formed, was well organized but with moderate capacities in the other four themes (Fig. 6.6). It was able to strengthen its legitimacy (through better links with and obtaining support for example from the Union Parishad for campaigns

against hunting birds) and also its representation in both Union and Upazila ECA coordination committees. Similarly adaptive management was strengthened by improving the content of its annual plans, ability to address local conflicts and providing hazard (flash flood) information and warnings to the community. Progress in governance and resource mobilization was not so linear between years, but ultimately both capacities improved. Governance is now inclusive of the poor who hold key positions, but no women are in decision making roles in this conservative community. Resource mobilization capacity increased greatly in 2018 when the VCG received use rights to two beels where it can regulate fishing to sustainable levels and collect fees from fishers to help cover its costs. This complements the VCGs' realistic financial plan and sources of income from assets developed in the previous two years and meant that it estimated it could cover all of its modest regular costs including guarding sanctuary areas from its expected income.



6.3 Sonadia ECA

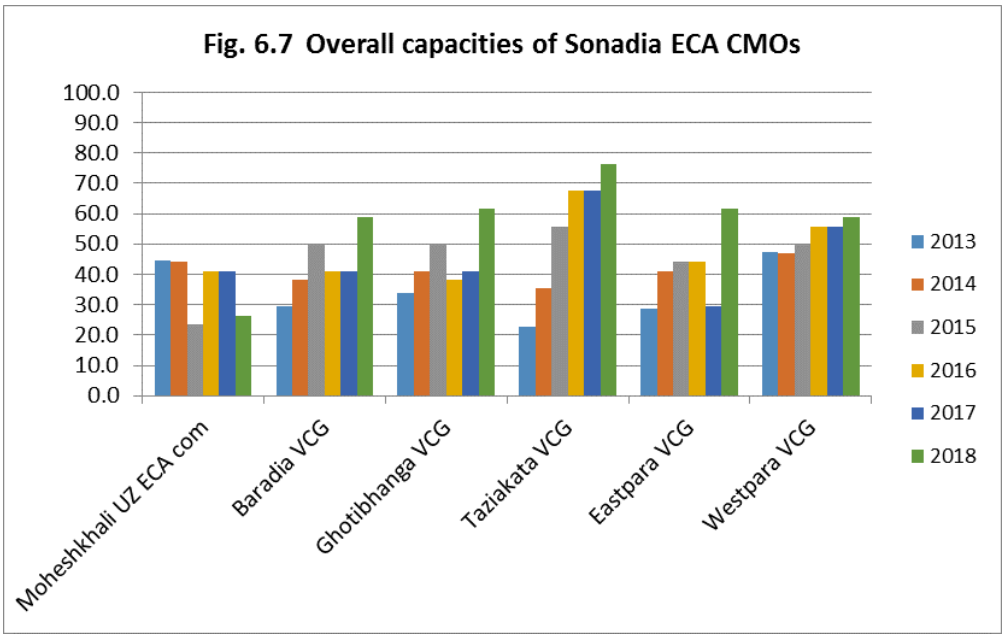
There are five VCGs active in Sonadia Island ECA, in addition they are represented in the Union and Upazila ECA coordination committees responsible for this area, of these the Moheshkhali Upazila ECA committee is responsible for co-management of Sonadia ECA (which lies within that Upazila), while the five VCGs are small community based organizations, one per village, with many of the households living in the ECA as members. As noted in Chapter 1 the VCGs are represented in the ECA committee along with the local Union Parishad (council) although that committee is dominated by government officials. The VCGs were originally formed in 2009 under a DoE project, and all have revolving funds and access to some resources through the Upazila ECA committee. Four of the VCGs are directly and indirectly active in conservation measures to protect threatened species (marine turtles and shorebirds), although these efforts are led by NGOs. Since other resources were available to the VCGs and their coverage (area and population) is modest they received little in the form of grants from CREL and no construction support (access is by boat and there is no focal point for potential nature based tourism), training and formal capacity building was also very limited (Table 6.3).

CMO capacity and sustainability is partly a product of experience and continued operation, but the VCGs in Sonadia were formed at about the same time (about four years before the 2013 assessment), and not only the VCGs but also the Upazila ECA committee had a low capacity in 2013, ranging from very low capacity to modest at best in Sonadia Westpara VCG (Fig. 6.7). Progress during CREL varied between the VCGs but with all improving, particularly in 2018 after concerted efforts in mentoring and assistance to strengthen capacity, which are likely to be fully felt in subsequent years. However, the Upazila ECA committee became even less active during this period despite being a formal government recognized and owned body.

Table 6.3 Overview of Village Conservation Groups in Sonadia ECA

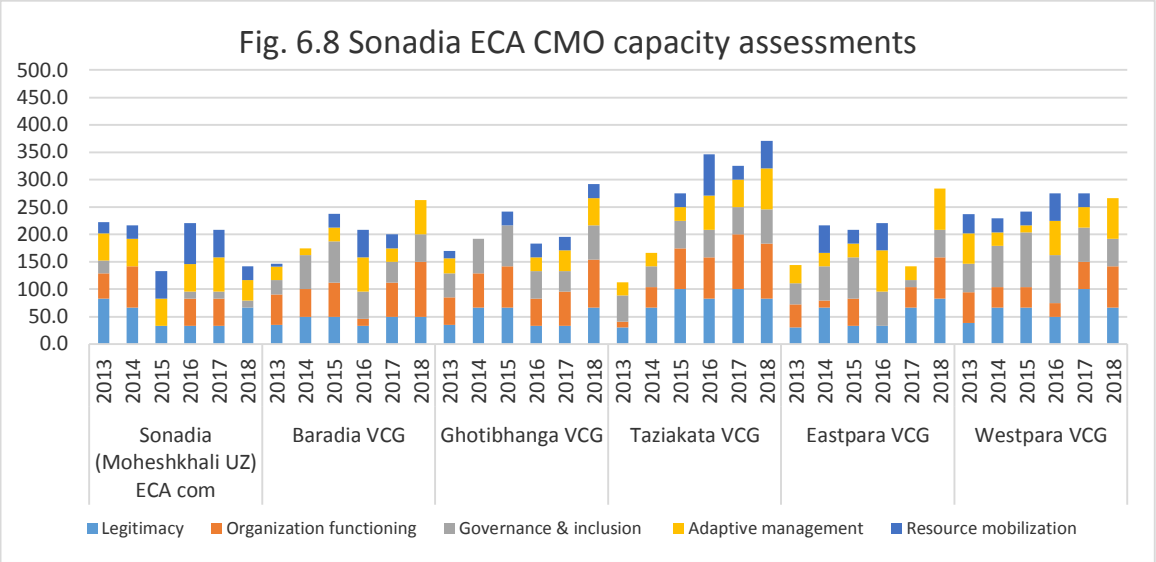
VCG/CMO	Date founded	2014 members	Training under CREL (CMC courses)		Total grants received (US$)	Total construction (no. actions)	No villages covered	Notable activities/ achievements
			No	% topic*				
Sonadia (Moheshkhali Upazila) ECA coordination committee	Not known	Not recorded	0	0	0	0	5	Co-management body that brings government and VCGs together, operates fund for VCGs
Baradia VCG	Jul 2009	27	1	9	3,216	0	1	Helped bird hunters take up alternative livelihoods
Ghativanga VCG	Jul 2009	35	1	9	3,290	0	1	Helped bird hunters take up alternative livelihoods
Sonadia Eastpara VCG	Sep 2009	40	1	9	0	0	1	Operates turtle nesting beach protection and hatchery, helped bird hunters take up alternative livelihoods
Sonadia Westpara VCG	Jul 2009	44	1	9	3,285	0	1	
Tajiakata VCG	Not recorded	52	1	9	9,140	0	1	Protects one of the high tide roosts for shorebirds

Note: totals are up to November 2017
* out of 11 topics (training titles) offered by CREL

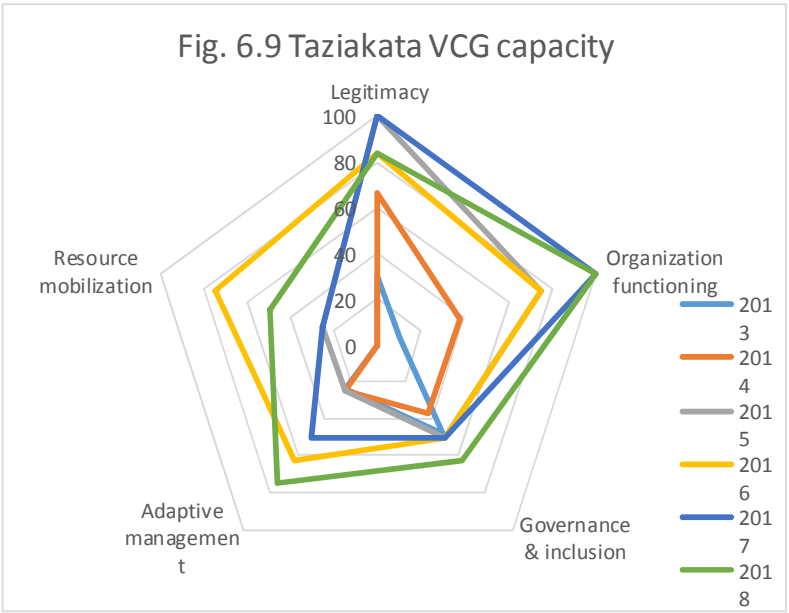


Changes in capacity components are shown in Fig 6.8, where each criteria is standardized as a percentage score out of the maximum possible for that criteria, and the five criteria percentages are simply summed (and are thus are reported out of 500 in total). While weak in all areas, the VCGs were particularly weak in governance, adaptive management and resource mobilization in the earlier years of CREL. Westpara VCG made no real progress to build on its initial advantage of relatively better capacity, it kept running to obtain small support from local government sources for its poorer members and to operate its revolving fund, but failed to mobilize resources to address natural resource management opportunities that it identified. The other VCGs followed similar patterns of improving organizational functioning and to a lesser extent their other capacities. However, the Upazila level

committee at best functioned intermittently during this period with very weak governance, poor linkages with other agencies despite being a government body, and ultimately with weak financial management and resource mobilization reflecting a lack of ability or recognition of Department of Environment to motivate and coordinate different stakeholders.



The changes in capacity are illustrated for Taziakata VCG which changed from the weakest to the strongest of these VCGs in the space of five years (Fig. 6.9). In 2013-14 it was barely functioning, but then addressed its organizational functioning by holding regular meetings and record keeping, this was followed gradually by strengthening links and requests to the Union Parishad and developing plans and taking up adaptive actions such as cyclone warnings and protecting mangroves. Despite demonstrating improved capacity in most indicators, this VCG still shows variability between years in resource mobilization expectations and reality, which will take time to address.



Chapter 7 Conclusions

7.1 Comparisons and Synthesis

Based on the assessments from 2013 to 2018 almost all CMOs made some improvements in the indicators of capacity used. Out of 45 CMOs by 2018 31 (almost 70%) were considered to be likely to sustain based on having an overall assessment score of 70% or more in two or more years, with another six (13%) reaching this level just in 2018 (either newer CMOs or wetland CBOs that only received rights to use and sustainably fish waterbodies in 2017-18). These are highlighted in green in the Annex (Tables 1 to 7) which shows the assessment scores for all CMOs and years. However, when the five criteria are considered individually, 15 (33%) of CMOs were still critically weak in resource mobilization (score of below 40%) in 2018 and only 19 (42%) of the CMOs by 2018 achieved the benchmark level of a score of 70% or more for the resource mobilization set of indicators. Table 7.1 goes back to the indicator measures and highlights the number of CMOs fully achieving each in 2014 and in 2018. This reveals the aggregate achievements for example in greatly increasing the active participation of women in CMO decision making as well as involvement of the poor; improvements in record keeping and proven ability to face audits of operations and finances; the lack of planning in CMOs at the outset of CREL and the change to following participatory planning processes and having adaptation plans in place by 2018; engagement of CMOs in monitoring ecosystem conditions; and substantial progress in resource mobilization capacity but without materializing this into sufficient regular funding for CMOs.

Table 7.1 CMOs fully meeting each indicator measure in 2014 and in 2018

Indicator	2014 assessment						2018 assessment					
	No fully met			% fully met			No fully met			% fully met		
	CMCs	CBOs	all	CMCs	CBOs	all	CMCs	CBOs	all	CMCs	CBOs	all
LEGITIMACY												
Government recognition of CMO	24	19	43	100.0	100.0	100.0	26	19	45	100.0	100.0	100.0
CBO representation in co-management	21	14	35	87.5	73.7	81.4	26	17	43	100.0	89.5	95.6
Local government support	12	5	17	50.0	26.3	39.5	18	9	27	69.2	47.4	60.0
ORGANIZATION FUNCTIONING												
Timely self-organizing	6	15	21	25.0	78.9	48.8	11	15	26	42.3	78.9	57.8
Record keeping	9	11	20	37.5	57.9	46.5	23	15	38	88.5	78.9	84.4
Financial management	10	6	16	41.7	31.6	37.2	23	7	30	88.5	36.8	66.7
Audit	2	8	10	8.3	42.1	23.3	20	12	32	76.9	63.2	71.1
GOVERNANCE AND INCLUSIVENESS												
Electing and changing leaders	11	7	18	45.8	36.8	41.9	13	2	15	50.0	10.5	33.3
Active participation of women	3	6	9	12.5	31.6	20.9	24	12	36	92.3	63.2	80.0
Active participation of poor	9	11	20	37.5	57.9	46.5	22	18	40	84.6	94.7	88.9
Fair access to resources for disadvantaged	11	4	15	45.8	21.1	34.9	21	12	33	80.8	63.2	73.3
ADAPTIVE PARTICIPATORY MANAGEMENT												
Participatory planning	0	3	3	0.0	15.8	7.0	19	18	37	73.1	94.7	82.2
Climate change planning	3	1	4	12.5	5.3	9.3	21	11	32	80.8	57.9	71.1
Conflict resolution	13	11	24	54.2	57.9	55.8	23	6	29	88.5	31.6	64.4
Monitoring	6	1	7	25.0	5.3	16.3	21	9	30	80.8	47.4	66.7
RESOURCE MOBILIZATION												
Capacity to mobilize	1	1	2	4.2	5.3	4.7	18	7	25	69.2	36.8	55.6
Regular funding	2	3	5	8.3	15.8	11.6	2	5	7	7.7	26.3	15.6
Requests for support	12	8	20	50.0	42.1	46.5	19	4	23	73.1	21.1	51.1
Climate information dissemination	3	4	7	12.5	21.1	16.3	25	14	39	96.2	73.7	86.7

Hence in summary CREL helped CMOs make good progress in consolidating their legitimacy and in building their organizational functioning, governance and inclusiveness (primarily of women and the poor), and adaptive management. In the second half of CREL resource mobilization capacity of CMOs was identified as a priority (having progressed on the other enabling capacities that meant CMOs could manage funds more effectively). The following sections discuss some of the outcomes of this.

7.2 Financial sustainability

One of the limitations of capacity building with the CMOs based on providing grants has been a focus on CREL and USAID procedures, with less attention to the CMO as a whole and its long term future and overall status. For example, VCGs already have revolving funds provided by other DoE projects and therefore the scope for some financial sustainability, but capacity and good practices in the management of those revolving funds, including accounting, selection of beneficiaries and enterprises, was insufficiently addressed. Common lessons and procedures could have been developed with CMOs since they have used part of the enterprise related funds from grants for a similar purpose – providing assets to individuals who then pay a lease/rental or buy the asset by repaying for it including an extra percentage, so that the CMO can repeat the process as a way of building up its financial assets and cash flow. The ultimate aim is for the CMO to cover operating costs from the surplus on such enterprise funding. The incomes for CMOs shown in Table 7.2 are not representative of long-term potential cash flows – these are the amounts that CMOs received back (as leases, or repayments, or payments by installment to buy assets), so far the plan and practice of most CMOs is to use the majority of such income to re-invest in further enterprise support (in some cases this already represents the accumulation of two or so rounds of such operations), in the expectation that this will generate higher returns. However, ultimately CMOs will have to take decisions on how much of their income to use for operational costs and how much to re-invest.

Building capacity to manage funds, and modest regular cash flows is only a starting point for CMO financial sustainability, CREL also tried to build capacity to mobilize resources either as external financial contributions or as support in kind including directing government and non-government resources towards priorities identified by remote and mostly poor communities through their vulnerability analysis and adaptation/resilience planning. Table 7.3 shows the total value of recorded support to CMOs from non-project sources during CREL, this includes resources provided directly to CMOs and also substantial support, particularly from CODEC, provided to directly to livelihood beneficiaries by NGOs in the form of micro-credit services from their own programs.

Not recorded in Table 7.3 are the value of voluntary services and contributions in-kind from CMOs and local communities (for example the difference between daily wage rates and patrol allowances for CPG members would be a measure of the value of time contributed by the CPG members). Also not included are the government services and infrastructure that almost all CMOs were able to have directed to some of their priority needs – this includes for example public resources used to provide tubewells in locations identified by communities in their vulnerability assessments, saplings provided by government, and direct assistance provided by Union Parishads to households that CMOs identified and recommended as being most in need.

Table 7.2 Reported net income to CMOs from entry fees and enterprise related activities operated by the CMOs

Region	CMO	Net income from enterprise related activities started with CREL grants (Tk)		Entry fee share (2017) (Tk)	Enterprise beneficiary No.
		October 2016-March 2018	Average for 12 months		
Cox's Bazar	Teknaf CMC	**73,970**	49,313	2,700	16
	Whykong CMC	83,245	55,497		14
	Shilkhali CMC	73,975	49,317		19
	Himchari CMC	128,212	85,475		22
	Medakachhapia CMC	67,783	45,189		10
	Fasiakhali CMC	146,030	97,353		35
	Average CMCs	**95,536**	**63,691**		**19**
Chittagong	Baroiyadala CMC	119,834	79,889		27
	Hazarikhil CMC	59,097	39,398		13
	Chunoti CMC	39,285	26,190	10,400	19
	Jaldi CMC	101,593	67,729		38
	Dhopachari CMC	106,397	70,931		35
	Dudhpukuria CMC	82,547	55,031		38
	Nijhum Dweep CMC	41,282	27,521		3
	Average CMCs	**78,577**	**52,384**		**25**
Southwest	Chandpai CMC	597,089	398,059		49
	Satkhira CMC	608,476	405,651		22
	Dacope-Koyra CMC	380,329	253,553		13
	Sarankhola CMC	429,109	286,073		18
	Tengragiri CMC	335,769	223,846		38
	Average CMCs	**470,154**	**313,436**		**28**
Central	Jaus CMC	154,580	103,053		18
	Dokhola CMC	91,900	61,267		17
	Average CMCs	**123,240**	**82,160**		**18**
Northeast	Lawachara CMC	0	0	2,370,400	17
	Khadimnagar CMC	307,801	205,200	17,700	37
	Rema Kalenga CMC	13,572	9,048	7,100	14
	Satchari CMC	0	0	520,600	0
	Average CMCs	**80,343**	**53,562**		**17**
	Balla RMO	33,607	22,405		7
	Dumuria RMO	14,538	9,692		5
	Baragangina RMO	46,921	31,280	106,600	4
	Agari RMO	0	0		
	Jethua RMO	0	0		
	Kajura RMO	0	0		
	Ramedia RMO	0	0		
	Sananda RMO	0	0		
	Average RMOs	**31,688**	**21,126**		**5**
	Noagaon VCG	116,580	77,720		4
	Judhistipur VCG	132,917	88,611		4
	Halla VCG	205,676	137,117		4
	Borudal VCG	98,618	65,745		5
	Akota VCG	168,688	112,459		4
	Average VCGs	**144,496**	**96,330**		**4**

Note: this table only shows the income from enterprises initiated by grants from CREL and not all income sources of the CMOs

Note: although Lawachara CMC used grant funds for enterprise support, it is awaiting an income from this; while Satchari CMC only received grant funds for this purpose in the last year of CREL so did not receive any income from this in the period reported.

Table 7.3 External resources received by CMOs during CREL (2013-2018)

CMO	Type	External funding (excluding cost sharing)		Main sources of support (in kind or funds)
		Taka	US$	
Chittagong region forest CMCs				
Baroiyadhala CMC	co	16,225,069	202,813	Mainly CODEC microfinance, also IDLC and PNL (crops and trees)
Chunati CMC	co	51,677,720	645,971	Mainly Arannyak Foundation support for livelihoods plus CODEC microfinance
Dhopachari CMC	co	16,225,069	202,813	Mainly CODEC microfinance, also IDLC and PNL (crops and trees)
Dudpukuria CMC	co	16,225,069	202,813	
Hazarikhil CMC	co	16,444,069	205,551	
Jaldi CMC	co	16,417,819	205,222	
Nijhum Dweep CMC	co	33,139,069	414,238	Combining DUS (local NGO) livelihood support and CODEC microfinance
Cox's Bazar region forest CMCs				
Fasiakhali CMC	co	237,567	2,969	GIZ ICS promotion
Himchari CMC	co	111,787	1,397	
Inani CMC	co	111,787	1,397	
Medakachapia CMC	co	111,787	1,397	
Shilkhali CMC	co	1,123,120	14,039	SRCWP support from FD
Teknaf CMC	co	1,123,120	14,039	
Whykeong CMC	co	1,123,120	14,039	
Cox's Bazar region ECA				
Sonadia ECA comm	co	0	0	
Baradia VCG	cbo	111,787	1,397	GIZ ICS promotion
Ghativanga VCG	cbo	111,787	1,397	
Sonadia Eastpara VCG	cbo	111,787	1,397	
Sonadia Westpara VCG	cbo	111,787	1,397	
Tajiakata VCG	cbo	111,787	1,397	
Southwest region forest CMCs				
Chandpai CMC	co	19,880,762	248,509	Mainly CODEC microfinance, also two ecotourism ventures
Dacope-Koyra CMC	co	1,641,033	20,512	CNRS microfinance
Munshiganj CMC	co	1,986,853	24,835	CNRS microfinance also HBPS
Sarankhola CMC	co	17,176,362	214,704	Mainly CODEC microfinance
Tengragiri CMC	co	1,641,033	20,512	CNRS microfinance
Central region forest CMCs				
Dokhola CMC	co	592,597	7,407	CNRS microfinance
JAUS CMC	co	592,597	7,407	
Northeast region forest CMCs				
Khadimnagar CMC	co	662,247	8,278	CNRS microfinance
Lawachara CMC	co	662,247	8,278	
Ratargul CMC	co	662,247	8,278	
Rema-Kalenga CMC	co	662,247	8,278	
Satchari CMC	co	662,247	8,278	
Northeast region wetland community organizations				
Agari RMO	cbo	662,247	8,278	Mainly CNRS microfinance
Balla RMO	cbo	662,247	8,278	
Baragangina RMO	cbo	662,247	8,278	
Dumuria RMO	cbo	662,247	8,278	
Jethua RMO	cbo	662,247	8,278	
Kajura RMO	cbo	662,247	8,278	
Ramedia RMO	cbo	662,247	8,278	
Sananda RMO	cbo	662,247	8,278	
Borudal VCG	cbo	662,247	8,278	
Ekota VCG	cbo	662,247	8,278	
Halla VCG	cbo	662,247	8,278	
Judhistapur VCG	cbo	662,247	8,278	
Naogaon VCG	cbo	662,247	8,278	
Total		**226,286,791**	**2,828,584**	

7.3 Recommendations

The following recommendations are made:

1. An objective **participatory annual assessment**/review of CMOs should continue, using the indicators and methods reported here, this will enhance peer pressure and understanding between co-management stakeholders and should be conducted by community and government stakeholders in co-management. Some external support (from NGOs or government or academia) is needed to ensure consistency between CMOs in these participatory assessments and to consolidate and compare progress for reporting back to the CMOs and to the relevant agencies.

2. Selective **capacity building** should continue particularly for newer CMOs, and to provide a level of backstopping for all CMOs when they encounter external threats and when there are changes in leadership and officials posted to sites. Some additional efforts are also needed for CBOs that only became re-activated in 2017-18 when they received rights to manage waterbodies, and to activate some of the relatively neglected CBOs. CREL focused extensively on organizational capacity, this forms a basis for greater future efforts by CMOs in thee related areas of: nature conservation, eco-tourism and livelihood development. Experience and some skills in these areas have been developed through CREL, but there remains much more for CMOs to do in these fields which will require access to external sources of skills and advice.

3. **Resource mobilization**, including balancing ambitious expectations and plans of CMOs with realistic potential funding and in-kind resources, remains a challenge. For forest PAs this also depends centrally on implementation of new funding and revenue sharing provisions under the Protected Area Management Rules 2017. However, at the site/CMO level there is a continued need for support and facilitation to link CMOs with potential resources and to apply collectively for funding, and for CMOs to have access to funds – for example a dedicated challenge fund that they can apply to, or endowments or similar resources. These would further develop ownership of actions by CMOs.

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ANNEX

CMO SCORECARD, EXAMPLE AND TABLES OF SCORES

A major focus of CREL was to build the capacity and sustainability of Co-Management Organizations. This was guided and outcomes determined by developing an assessment scorecard. The main report explains how this was developed from an initial detailed stocktaking assessment in 2013 which used a large number of indicators and questions (which have been re-categorized and reworked for the tables in this annex), into a more concise and practical set of five key criteria for sustainability and associated with these 17 measures.

This was operationalized by developing a scorecard with cut-off criteria for scores/categories for each of the measures, two other indicators/measures that contributed to CREL performance monitoring, space for providing evidence and additional information, and guidance for the CREL staff and government officials and CMO leaders who were involved in carrying out the assessments. For example, in later years leaders involved in co-management took part in assessing each other's CMOs where those are nearby and of similar type, for this purpose a Bangla version as well as English version of the scorecard was developed. The scorecard is reproduced here. An example of a completed scorecard is given at the end of this annex, transcribed from the hardcopy version used in the field into a spreadsheet showing the qualitative and quantitative evidence collected, which has helped in guiding customized support and in documenting successes and challenges.

The scores calculated from these assessments each year for each CMO for the five indicators are shown in Tables 1-7, according to the region and type of CMO involved. The color coding used in interpreting and comparing results are included (where red indicates zero capacity, pink a capacity rated at below 40% of possible capacity, and green indicates in the overall score CMOs that achieved 70% or more of the potential score and were considered capable of sustaining under normal circumstances without significant external capacity building. Note that there are three qualifications to this interpretation of sustainability:

1. Unforeseen events and new challenges could undermine sustainability. This happened in the past when most of the Hail Haor RMOs lost rights to waterbodies when ten-year MOUs were not renewed by Ministry of Land – undermining their purpose and success, part of their income and ability to use grants from endowment funds. This is also likely in the current-near future with the massive pressure on Cox's Bazar region forest s from Rohingyan refugees since 2017. Support from external facilitators to help advocate solutions is important.

2. Despite developing a toolkit and orienting CMO leaders on how to orient new leaders, the transitions when there are elections or transfers of relevant officials are a challenge when access to resource persons and help in conducting training is needed.

3. Resource mobilization has been a major challenge, and the ability of CMOs that in the last years of CREL started to generate income and attract funds to cover part of their operating costs has not been tested over multiple years. Only two CMOs can access sufficient funds to cover all of their regular costs – Lawachara CMC because of the very high visitor numbers and tourism development there, and Baragangina RMO because it manages Baikka Beel permanent wetland sanctuary and MACH established a reserved part of an endowment fund specifically for guards and maintenance.

CMO Assessment Scorecard

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	**Categories**	**Score**
		Background data			
		Site (PA name)			
		CMO/CBO name			
		Type of body (co-management committee (civil society and government members) or community organization (e.g. RMO, VCG)			
		Date of assessment			
		LEGITIMACY			
		Government recognition and support			
1	**1.1**	If CMO is formally recognised by government	Details:	**Yes (registered or ordinance/ similar) => 2** Not recognized => 0	
		Community organization - co-management representation			
2a	**1.2**	**Co-management committee** (CMC, UFC, UZECACC): % members from local community organizations	No. and %:	**≥33% from CBOs => 2** 20-33% from CBOs => 1 < 20% from CBOs => 0	
2b	**1.2**	**CBO** (RMO, VCG): has at least one member who is a member of co-management committee	No.	**1 or more => 2** None => 0	
		Local government support			
3	**1.3**	No of times in last year UP supported CMO (endorsed request to higher government level, met need identified by CMO, in solving conflicts or other support)	Details:	**Yes for all such requests => 2** Some of times when requested => 1 Never => 0	
4	**Ind 5**	Formal requests for actions in support of conservation, adaptation and/or sustainable NRM made to government bodies in last 12 months	Details:	**2 or more => 2** 1 => 1 none => 0	
		ORGANIZATIONAL FUNCTIONING			
		Self-organized and timely			
5a	**2.1**	For **Forest CMCouncils**: half-yearly council meeting organized by CMCommittee within last 7 months	Details:	**Within last ≤7 months =>2** 8-12 months ago =>1 > 12 months ago =>0	
5b	**2.1**	For **all other CMOs and CBOs**: EC organized AGM within last 13 months	Details:	**Within last ≤13 months =>2** 14-18 months ago =>1 > 18 months ago =>0	
		Record keeping			
6	**2.2**	If the CMO keeps minutes and records of its decisions by itself	Details:	**All agenda items in last meeting written up with solutions/ decisions => 2**	

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	**Categories**	**Score**
				Record of last meeting written up but not for all agenda items => 1	
				Minutes and records not up to date, or filled in largely or all by project/NGO staff => 0	
		Financial management			
7	**2.3**	Accounts book and records maintenance in last 12 months	Details:	**Well maintained by CMO => 2**	
				Satisfactory by CMO => 1	
				Not well maintained (not up to date, mistakes, none, filled in by project staff) => 0	
		Audit			
8	**2.4**	Date of last external audit and outcome (conducted e.g. by a govt. body or qualified auditor)	Details:	**within last 12 months, satisfactory and got feedback => 2**	
				Over 12 months ago got feedback => 1	
				None => 0	
		GOVERANCE AND INCLUSIVENESS			
		Changing leaders			
9	**3.1**	Date of last election of CMO (committee) office bearers	Date:	**Within 3 months of constitution schedule => 2**	
				4-12 months later than in constitution => 1	
				More than 12 months late (including never held election) => 0	
		Active participation of women			
10	**3.2**	Current role of women as office bearers or chairing sub-committees	Evidence:	**at least one office bearer or sub-committee chair => 2**	
				only chair women's affairs => 1	
				no women office bearers or sub-committee chairs => 0	
		Active participation of poor			
11	**3.3**	Current role of poor (<50 dec and sell labor or actively fish) as office bearers or chairing sub-committees	Evidence:	**at least one is an office bearer or sub-committee chair => 2**	
				only chair poverty/welfare sub-committee => 1	
				none among office bearers or sub-committee chairs => 0	
		Fair resource access			
12	**3.4**	CMO's current rules favor disadvantaged in access to resources in ways disadvantaged consider fair	Details:	**Rules explicitly give preference to poor, women and ethnic minorities => 2**	
				Rules give preference to at least one disadvantaged group but not all => 1	

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	Categories	Score
				Rules do not favor disadvantaged, or disadvantaged say they are not fair => 0	
		ADAPTIVE MANAGEMENT			
		Participatory planning			
13a	**4.1**	Management planning process (co-management body) - current annual plan	Details:	**One plan jointly prepared by co-management stakeholders including GOB => 2**	
				Separate plans of GOB and community/co-management body, some adjustment to modify for consistency => 1	
				Separate plans and not coordinated in participatory way, or with little participation from community members => 0	
13b	**4.1**	Management planning process (community organization) - current annual plan	Details:	**Plan prepared by CBO with full member participation and informed/ endorsed by Govt (record of GOB advice or endorsement) => 2**	
				Plan prepared by CBO but limited participation => 1	
				No plan or plan driven by outsiders and not made in participatory way => 0	
		Climate Change Resilience			
14	**4.2**	Current management plan takes account of hazards and risks	Details:	**Yes - explicitly includes contingency plans or considered what would happen if hazard occurred in planning activities => 2**	
				Yes - not written in plan but e.g. taken up activities that are less vulnerable to risks => 1	
				No => 0	
15	**Ind 8**	If CMO has provided information on risks or hazard events in last year?	Details and estimated number of households informed:	Warned community about one or more hazard events => 2	
				Informed community about future risks or environmental trends => 2	
				Discussed risks in meeting but not with general members or wider community => 1	
				No => 0	
		Conflict resolution			
16	**4.3**	Conflict and dispute resolution among CMO members and stakeholders in	Details:	**leaders skilled in this, have resolved conflicts and perceived to be just => 2**	

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	Categories	Score
		the area during term of current leaders/last year (whichever is longer)		conflicts resolved but not seen as fair by all => 1	
				conflicts persist unresolved => 0	
		Monitoring and Learning			
17	**4.4**	CMO regularly discusses monitoring results and uses this in decisions that it documents in last year	Details	**yes, documented in records => 2**	
				some discussion but use in decisions not clear or documented => 1	
				no, including no monitoring or not used => 0	
		RESOURCE MOBILIZATION			
		Capacity to mobilize			
18	**5.1**	If the CMO has a realistic "fund/resource raising" plan (income and expenditure including fund raising) designed to cover its functioning and planned actions that it is following	Details:	**Yes, written plan and covers planned actions => 2**	
				Yes, but unwritten or not covering plans => 1	
				No => 0	
		Regular funding			
19	**5.2**	If the CMO had sufficient regular funding to meet its functioning and planned actions in last 12 months	Details:	**100% or more of needed funds available => 2**	
				66% to 99% funds were available, and no debt => 1	
				Under 66% available, or in debt, or any key activities halted for lack of funds => 0	
		OTHER			
		Comments - any key issues affecting the status or performance of the CMO that are not properly reflected in the assessment format. Impressions about the acceptance of the CMO in wider community, acceptance of its leaders, its sustainability. Any other problems or achievements/advantages of the CMO			
		Assessment made by:			
		Note: last year = last 12 months up to date of assessment			

	Criteria and indicators	Score
	OVERALL (%)	
1	**LEGITIMACY**	
1.1	*Government recognition of CMO*	
1.2	*CBO representation in co-management*	
1.3	*Local government support*	
2	**ORGANIZATION FUNCTIONING**	
2.1	*Timely self-organizing*	
2.2	*Record keeping*	
2.3	*Financial management*	
2.4	*Audit*	
3	**GOVERNANCE AND INCLUSIVENESS**	
3.1	*Electing and changing leaders*	
3.2	*Active participation of women*	
3.3	*Active participation of poor*	
3.4	*Fair access to resources for disadvantaged*	
4	**ADAPTIVE PARTICIPATORY MANAGEMENT**	
4.1	*Participatory planning*	
4.2	*Climate change planning*	
4.3	*Conflict resolution*	
4.4	*Monitoring*	
5	**RESOURCE MOBILIZATION**	
5.1	*Capacity to mobilize*	
5.2	*Regular funding*	
Ind 5	Requests for support	
Ind 8	Climate information dissemination	

Summaries of CMO assessment results

Table 1 Capacity scores of forest PA CMCs in Northeast and central region

CMC	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Lawachara CMC	**2013**	36.1	68.8	68.1	38.1	37.5	49.7
	2014	66.7	75.0	62.5	75.0	75.0	70.6
	2015	66.7	100.0	75.0	87.5	75.0	82.4
	2016	100.0	87.5	75.0	100.0	75.0	88.2
	2017	100.0	87.5	75.0	100.0	75.0	88.2
	2018	100.0	100.0	87.5	100.0	100.0	97.1
Satchari CMC	**2013**	41.7	65.6	56.3	42.7	45.8	50.4
	2014	100.0	62.5	50.0	62.5	75.0	67.6
	2015	100.0	50.0	87.5	87.5	50.0	76.5
	2016	83.3	75.0	62.5	100.0	50.0	76.5
	2017	83.3	100.0	75.0	87.5	25.0	79.4
	2018	100.0	62.5	75.0	100.0	75.0	82.4
Rema Kalenga CMC	**2013**	50.0	64.1	69.4	49.4	50.0	56.6
	2014	83.3	62.5	37.5	50.0	25.0	52.9
	2015	83.3	62.5	62.5	37.5	25.0	55.9
	2016	100.0	75.0	87.5	100.0	50.0	85.3
	2017	83.3	75.0	25.0	75.0	25.0	58.8
	2018	83.3	75.0	75.0	100.0	25.0	76.5
Khadimnagar CMC	**2013**	43.1	14.1	45.6	30.4	8.3	28.3
	2014	83.3	25.0	25.0	62.5	0.0	41.2
	2015	100.0	12.5	37.5	75.0	25.0	50.0
	2016	83.3	50.0	62.5	100.0	25.0	67.6
	2017	100.0	87.5	62.5	100.0	75.0	85.3
	2018	100.0	100.0	62.5	100.0	100.0	91.2
Dokhola CMC	**2013**	62.5	34.4	57.5	26.9	21.7	40.6
	2014	100.0	50.0	37.5	37.5	0.0	47.1
	2015	66.7	75.0	37.5	37.5	0.0	47.1
	2016	100.0	62.5	62.5	87.5	25.0	70.6
	2017	83.3	87.5	50.0	75.0	25.0	67.6
	2018	83.3	75.0	87.5	75.0	25.0	73.5
Rasulpur CMC	**2013**	41.7	35.9	63.8	31.0	13.3	37.1
	2014	100.0	50.0	62.5	37.5	0.0	52.9
	2015	100.0	50.0	37.5	37.5	0.0	47.1
	2016	100.0	50.0	62.5	75.0	25.0	64.7
	2017	100.0	100.0	87.5	87.5	25.0	85.3
	2018	83.3	75.0	75.0	100.0	25.0	76.5
Ratargul CMC	**2018**	100.0	50.0	87.5	87.5	50.0	76.5

Note Ratargul CMC was formed in 2017 so only a baseline assessment in 2018 was conducted

Red indicates zero capacity, pink under 40% and green above 70%

Table 2 Capacity scores of Resource Management Organizations in Hail Haor in Northeast region

RMO	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Baragangina RMO	2013	76.4	82.8	68.8	46.9	54.2	65.8
	2014	100.0	100.0	62.5	87.5	100.0	88.2
	2015	100.0	87.5	87.5	87.5	100.0	91.2
	2016	100.0	100.0	87.5	75.0	100.0	91.2
	2017	100.0	100.0	87.5	75.0	100.0	91.2
	2018	100.0	100.0	87.5	100.0	100.0	97.1
Dumuria RMO	2013	66.7	65.6	58.8	18.8	20.8	46.1
	2014	100.0	100.0	50.0	50.0	50.0	70.6
	2015	100.0	87.5	87.5	37.5	25.0	70.6
	2016	66.7	87.5	87.5	37.5	25.0	64.7
	2017	66.7	100.0	75.0	37.5	25.0	64.7
	2018	100.0	75.0	75.0	87.5	25.0	76.5
Balla RMO	2013	45.8	75.0	68.1	22.9	25.0	47.4
	2014	83.3	62.5	62.5	50.0	0.0	55.9
	2015	66.7	37.5	62.5	50.0	0.0	47.1
	2016	66.7	100.0	87.5	37.5	0.0	64.7
	2017	66.7	100.0	87.5	50.0	0.0	67.6
	2018	100.0	75.0	75.0	62.5	50.0	73.5
Sananda RMO	2013	64.6	65.6	50.6	10.4	5.0	39.3
	2014	100.0	50.0	50.0	37.5	25.0	52.9
	2015	100.0	75.0	75.0	12.5	0.0	55.9
	2016	100.0	62.5	75.0	50.0	0.0	61.8
	2017	66.7	62.5	75.0	50.0	0.0	55.9
	2018	66.7	62.5	75.0	62.5	0.0	58.8
Kajura RMO	2013	25.0	26.0	30.0	16.3	12.5	22.0
	2014	66.7	50.0	75.0	50.0	0.0	52.9
	2015	66.7	37.5	75.0	12.5	0.0	41.2
	2016	66.7	37.5	75.0	37.5	0.0	47.1
	2017	66.7	50.0	75.0	37.5	0.0	50.0
	2018	66.7	62.5	100.0	75.0	75.0	76.5
Agari RMO	2013	12.5	23.4	35.6	2.1	0.0	14.7
	2014	83.3	12.5	25.0	12.5	0.0	26.5
	2015	100.0	25.0	62.5	12.5	0.0	41.2
	2016	66.7	87.5	75.0	37.5	0.0	58.8
	2017	83.3	75.0	75.0	50.0	0.0	61.8
	2018	83.3	75.0	87.5	75.0	75.0	79.4
Ramedia RMO	2013	16.7	60.9	74.4	37.5	8.3	39.6
	2014	66.7	50.0	12.5	12.5	0.0	29.4
	2015	66.7	50.0	62.5	12.5	0.0	41.2
	2016	66.7	62.5	75.0	37.5	0.0	52.9
	2017	66.7	37.5	75.0	37.5	0.0	47.1
	2018	100.0	37.5	87.5	75.0	75.0	73.5
Jethua RMO	2013	58.3	49.5	40.6	20.2	5.0	34.7
	2014	66.7	50.0	0.0	0.0	0.0	23.5
	2015	100.0	62.5	50.0	25.0	0.0	50.0
	2016	66.7	62.5	62.5	37.5	0.0	50.0
	2017	66.7	62.5	62.5	37.5	0.0	50.0
	2018	66.7	37.5	62.5	50.0	0.0	47.1

Table 3 Capacity scores of Village Conservation Groups in Hakaluki Haor in Northeast region

VCG	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Halla VCG	**2013**	51.4	79.7	43.8	37.5	60.0	54.5
	2014	66.7	75.0	12.5	75.0	75.0	58.8
	2015	83.3	87.5	37.5	50.0	50.0	61.8
	2016	83.3	100.0	37.5	75.0	25.0	67.6
	2017	100.0	75.0	50.0	87.5	50.0	73.5
	2018	100.0	75.0	62.5	75.0	100.0	79.4
Borodal VCG	**2013**						ns
	2014	33.3	87.5	37.5	62.5	0.0	50.0
	2015	33.3	75.0	50.0	62.5	50.0	55.9
	2016	66.7	75.0	75.0	50.0	25.0	61.8
	2017	100.0	100.0	75.0	50.0	50.0	76.5
	2018	100.0	100.0	87.5	50.0	75.0	82.4
Judihistipur VCG	**2013**	43.1	71.9	41.9	40.6	41.7	47.8
	2014	33.3	87.5	62.5	62.5	25.0	58.8
	2015	66.7	75.0	87.5	50.0	25.0	64.7
	2016	66.7	75.0	87.5	75.0	25.0	70.6
	2017						ns
	2018	100.0	100.0	75.0	87.5	75.0	88.2
Ekota VCG	**2013**	43.1	76.6	48.1	36.5	41.7	49.2
	2014	33.3	62.5	37.5	62.5	0.0	44.1
	2015	66.7	75.0	37.5	50.0	25.0	52.9
	2016	83.3	100.0	87.5	75.0	25.0	79.4
	2017	66.7	100.0	75.0	62.5	50.0	73.5
	2018	83.3	87.5	75.0	87.5	75.0	82.4
Naogaon VCG	**2013**						ns
	2014	100.0	100.0	75.0	62.5	0.0	73.5
	2015	100.0	75.0	75.0	25.0	25.0	61.8
	2016	100.0	100.0	75.0	62.5	25.0	76.5
	2017	100.0	100.0	62.5	37.5	50.0	70.6
	2018	100.0	62.5	75.0	87.5	50.0	76.5

Note ns indicates not surveyed – lack of clarity as to which of more than 20 VCGs in Hakaluki Haor would be the focus of CREL activities in 2013 resulted in two not being assessed in that year; and one was missed in error in 2017.

Table 4 Capacity scores of forest CMCs in Southwest region

CMC	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Sarankhola CMC	2013	37.5	19.8	33.8	20.8	8.3	24.0
	2014	100.0	0.0	50.0	50.0	25.0	44.1
	2015	100.0	75.0	12.5	100.0	0.0	61.8
	2016	100.0	87.5	62.5	100.0	50.0	82.4
	2017	100.0	100.0	100.0	100.0	50.0	94.1
	2018	100.0	87.5	100.0	100.0	50.0	91.2
Chandpai CMC	2013	54.2	28.1	43.5	28.1	22.9	35.4
	2014	100.0	12.5	12.5	50.0	25.0	38.2
	2015	100.0	75.0	12.5	100.0	0.0	61.8
	2016	100.0	100.0	75.0	100.0	50.0	88.2
	2017	66.7	100.0	87.5	100.0	50.0	85.3
	2018	66.7	100.0	87.5	100.0	50.0	85.3
Dakop-Koyra CMC	2013	48.6	25.0	43.5	28.1	16.7	32.4
	2014	83.3	12.5	12.5	50.0	25.0	35.3
	2015	100.0	75.0	50.0	100.0	0.0	70.6
	2016	100.0	75.0	50.0	100.0	50.0	76.5
	2017	100.0	100.0	50.0	100.0	75.0	85.3
	2018	100.0	100.0	100.0	100.0	75.0	97.1
Munshigonj CMC	2013	37.5	33.6	46.9	26.0	16.7	32.1
	2014	83.3	25.0	37.5	50.0	25.0	44.1
	2015	100.0	62.5	25.0	87.5	0.0	58.8
	2016	100.0	100.0	75.0	100.0	50.0	88.2
	2017	100.0	100.0	62.5	100.0	50.0	85.3
	2018	100.0	100.0	87.5	100.0	75.0	94.1
Tengragiri CMC	2013						nf
	2014						Ns
	2015	66.7	25.0	0.0	25.0	0.0	23.5
	2016	66.7	75.0	37.5	25.0	0.0	44.1
	2017	100.0	100.0	62.5	87.5	50.0	82.4
	2018	100.0	100.0	62.5	100.0	75.0	88.2

Note: nf – not formed, ns – not surveyed – Tengragiri CMC was formed in 2014 just before the assessment took place.

Table 5 Capacity scores of forest CMCs in Chittagong region

CMC	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Chunati	2013	31.9	50.0	58.1	40.0	20.8	40.2
	2014	100.0	50.0	37.5	75.0	25.0	58.8
	2015	100.0	75.0	75.0	75.0	25.0	73.5
	2016	83.3	100.0	87.5	87.5	25.0	82.4
	2017	66.7	87.5	100.0	75.0	25.0	76.5
	2018	83.3	62.5	100.0	100.0	50.0	82.4
Jaldi	2013	36.1	35.9	45.4	46.9	16.7	36.2
	2014	100.0	0.0	12.5	75.0	25.0	41.2
	2015	100.0	87.5	87.5	75.0	50.0	82.4
	2016	83.3	75.0	87.5	87.5	25.0	76.5
	2017	83.3	100.0	100.0	100.0	25.0	88.2
	2018	100.0	75.0	100.0	100.0	50.0	88.2
Dudpukuria	2013	45.8	39.1	48.1	38.1	25.0	39.2
	2014	100.0	50.0	50.0	87.5	25.0	64.7
	2015	83.3	50.0	37.5	62.5	25.0	52.9
	2016	83.3	100.0	100.0	87.5	25.0	85.3
	2017	100.0	100.0	100.0	75.0	25.0	85.3
	2018	100.0	87.5	100.0	75.0	50.0	85.3
Dhopachari	2013	62.5	12.5	57.5	46.3	0.0	35.8
	2014	100.0	25.0	50.0	87.5	25.0	58.8
	2015	83.3	75.0	50.0	75.0	25.0	67.6
	2016	100.0	87.5	62.5	87.5	25.0	76.5
	2017	100.0	100.0	75.0	87.5	25.0	82.4
	2018	100.0	75.0	75.0	87.5	25.0	76.5
Hazarikhil	2013						ns
	2014	66.7	0.0	25.0	0.0	0.0	17.6
	2015	66.7	25.0	25.0	62.5	0.0	38.2
	2016	83.3	50.0	100.0	75.0	25.0	70.6
	2017	83.3	100.0	87.5	87.5	50.0	85.3
	2018	100.0	87.5	87.5	87.5	50.0	85.3
Baroiyadhala	2013						Ns
	2014	66.7	12.5	0.0	25.0	0.0	20.6
	2015	83.3	50.0	37.5	62.5	0.0	50.0
	2016	83.3	75.0	75.0	87.5	25.0	73.5
	2017	100.0	100.0	75.0	100.0	50.0	88.2
	2018	100.0	87.5	75.0	100.0	50.0	85.3
Nijhum Dweep	2013						Ns
	2014	66.7	0.0	25.0	0.0	0.0	17.6
	2015	100.0	25.0	25.0	50.0	0.0	41.2
	2016	83.3	75.0	75.0	87.5	25.0	73.5
	2017	83.3	75.0	62.5	87.5	25.0	70.6
	2018	100.0	100.0	62.5	87.5	25.0	79.4

Note – ns – not surveyed these three CMCs were formed in late 2013 and early 2014 and so did not exist at the time of the 20103 assessment.

Table 6 Capacity scores of forest CMCs in Cox's Bazar region

CMC	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Teknaf CMC	2013	59.7	84.4	58.8	34.6	12.5	50.0
	2014	66.7	37.5	50.0	62.5	25.0	50.0
	2015	83.3	75.0	50.0	75.0	25.0	64.7
	2016	66.7	50.0	87.5	100.0	25.0	70.6
	2017	83.3	100.0	87.5	100.0	50.0	88.2
	2018	83.3	87.5	75.0	75.0	75.0	79.4
Whykong CMC	2013	61.1	64.1	58.1	28.8	16.7	45.7
	2014	66.7	37.5	100.0	37.5	0.0	52.9
	2015	83.3	75.0	50.0	87.5	0.0	64.7
	2016	83.3	62.5	75.0	75.0	25.0	67.6
	2017	66.7	100.0	100.0	100.0	25.0	85.3
	2018	100.0	50.0	100.0	87.5	75.0	82.4
Shilkhali CMC	2013	47.2	82.8	53.8	26.7	16.7	45.4
	2014	100.0	37.5	50.0	50.0	50.0	55.9
	2015	100.0	50.0	87.5	62.5	0.0	64.7
	2016	100.0	62.5	75.0	100.0	25.0	76.5
	2017	83.3	100.0	87.5	100.0	25.0	85.3
	2018	100.0	87.5	100.0	87.5	75.0	91.2
Inani CMC	2013	66.7	45.3	62.5	20.0	4.2	39.7
	2014	83.3	0.0	50.0	50.0	25.0	41.2
	2015	66.7	0.0	12.5	50.0	0.0	26.5
	2016	83.3	25.0	12.5	37.5	0.0	32.4
	2017	100.0	0.0	25.0	87.5	0.0	44.1
	2018	66.7	0.0	25.0	50.0	0.0	29.4
Himchari CMC	2013	51.4	67.2	59.4	30.8	41.7	50.1
	2014	100.0	50.0	75.0	75.0	0.0	64.7
	2015	100.0	25.0	75.0	87.5	0.0	61.8
	2016	100.0	87.5	100.0	75.0	25.0	82.4
	2017	66.7	87.5	100.0	100.0	25.0	82.4
	2018	100.0	87.5	87.5	87.5	25.0	82.4
Medakacchapia CMC	2013	50.0	59.4	53.1	39.2	12.5	42.8
	2014	83.3	62.5	62.5	25.0	0.0	50.0
	2015	100.0	75.0	87.5	100.0	0.0	79.4
	2016	66.7	100.0	100.0	100.0	25.0	85.3
	2017	100.0	100.0	100.0	100.0	25.0	91.2
	2018	100.0	100.0	100.0	75.0	75.0	91.2
Fasiakhali CMC	2013	55.6	67.2	64.4	41.7	29.2	51.6
	2014	83.3	75.0	37.5	50.0	25.0	55.9
	2015	100.0	75.0	87.5	100.0	0.0	79.4
	2016	100.0	100.0	62.5	100.0	25.0	82.4
	2017	100.0	100.0	100.0	100.0	25.0	91.2
	2018	100.0	100.0	100.0	62.5	75.0	88.2

Table 7 Capacity scores of Village Conservation Groups and Upazila ECA committee in Sonadia ECA, Cox's Bazar region

CMC	Year	Legitimacy	Organization functioning	Governance & inclusion	Adaptive management	Resource mobilization	Overall Score %
Sonadia (Moheshkhali UZ) ECA com	2013	83.3	45.3	24.0	49.0	20.8	44.5
	2014	66.7	75.0	0.0	50.0	25.0	44.1
	2015	33.3	0.0	0.0	50.0	50.0	23.5
	2016	33.3	50.0	12.5	50.0	75.0	41.2
	2017	33.3	50.0	12.5	62.5	50.0	41.2
	2018	66.7	0.0	12.5	37.5	25.0	26.5
Baradia VCG	2013	34.7	55.8	26.0	25.0	5.0	29.3
	2014	50.0	50.0	62.5	12.5	0.0	38.2
	2015	50.0	62.5	75.0	25.0	25.0	50.0
	2016	33.3	12.5	50.0	62.5	50.0	41.2
	2017	50.0	62.5	37.5	25.0	25.0	41.2
	2018	50.0	100.0	50.0	62.5	0.0	58.8
Ghotibhanga VCG	2013	34.7	50.9	43.8	27.1	13.3	34.0
	2014	66.7	62.5	62.5	0.0	0.0	41.2
	2015	66.7	75.0	75.0	0.0	25.0	50.0
	2016	33.3	50.0	50.0	25.0	25.0	38.2
	2017	33.3	62.5	37.5	37.5	25.0	41.2
	2018	66.7	87.5	62.5	50.0	25.0	61.8
Taziakata VCG	2013	30.6	10.3	47.9	24.0	0.0	22.5
	2014	66.7	37.5	37.5	25.0	0.0	35.3
	2015	100.0	75.0	50.0	25.0	25.0	55.9
	2016	83.3	75.0	50.0	62.5	75.0	67.6
	2017	100.0	100.0	50.0	50.0	25.0	67.6
	2018	83.3	100.0	62.5	75.0	50.0	76.5
Eastpara VCG	2013	30.6	41.5	39.0	33.3	0.0	28.9
	2014	66.7	12.5	62.5	25.0	50.0	41.2
	2015	33.3	50.0	75.0	25.0	25.0	44.1
	2016	33.3	0.0	62.5	75.0	50.0	44.1
	2017	66.7	37.5	12.5	25.0	0.0	29.4
	2018	83.3	75.0	50.0	75.0	0.0	61.8
Westpara VCG	2013	38.9	55.8	51.7	55.2	35.4	47.4
	2014	66.7	37.5	75.0	25.0	25.0	47.1
	2015	66.7	37.5	100.0	12.5	25.0	50.0
	2016	50.0	25.0	87.5	62.5	50.0	55.9
	2017	100.0	50.0	62.5	37.5	25.0	55.9
	2018	66.7	75.0	50.0	75.0	0.0	58.8

Example of completed CMO Scorecard – Baroiyadhala CMC, Chittagong region, 2017

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	Categories	Score
		Background data			
		Site (PA name)	Baroiyadhala National Park		
		CMO/CBO name	Baroiyadhala CMC		
		Type of body (co-management committee (civil society and government members) or community organization (e.g. RMO, VCG)	CMC		
		Date of assessment	10-Sep-17		
		LEGITIMACY			
		Government recognition and support			
1	**1.1**	If CMO is formally recognised by government	Details: The CMC is recognized by the gazette of Ministry of Environment and Forest (MoEF). (Gazette No. from MoEF: Pabama/porisha-4/Nishorgo/105/sting/2006/396 Date: 23/11/2009.); CMC formed according to constitution and it is approved by UNO	**Yes (registered or ordinance/ similar) => 2** Not recognized => 0	2
		Community organization - co-management representation			
2a	**1.2**	**Co-management committee** (CMC, UFC, UZECACC): % members from local community organizations	No. and %: Member representating from PF-6; Forest Conservation Club-2; CPG-3 total 11 (out of 29) in percentage about 38%.	**≥33% from CBOs => 2** 20-33% from CBOs => 1 < 20% from CBOs => 0	2
2b	**1.2**	**CBO** (RMO, VCG): has at least one member who is a member of co-management committee	No: N/A	**1 or more => 2** None => 0	
		Local government support			
3	**1.3**	No of times in last year UP supported CMO (endorsed request to higher government level, met need identified by CMO, in solving conflicts or other support)	Details: 1) CMC requested to Koiyachara UP Chairman for tube well installation at Koiyachara Water Fall area as facilities of drinking water for tourist & local community at source. 2) UP Chairman of Koiyachara gave commitment in the occasion of hands on training program (20. 09. 17) of climbing for controlling the illegal felling of forest sp. from BDNP area.	**Yes for all such requests => 2** Some of times when requested => 1 Never => 0	2
4	**Ind 5**	Formal requests for actions in support of conservation, adaptation and/or sustainable NRM made to government bodies in last 12 months	Details: 1) CMC requested to Ctg. North DFO (DFO-CMC meeting decision on 24 April, 2017) for taking action on entry collection issue at Baroiyadhala site. 2) Baroiyadhala CMC requested to UNO for inclusion CMO representative (CM Council meeting decision on 18 September, 2017) in Upazilla level Environment & Forest Development Committee. 3) CMC requested to (CM Council meeting decision on 18 September, 2017) Assistant Commissioner (Land) of Mirsharai for acquisition of DC kash land at Dhaka-Ctg. highway site of Mirsharai.	**2 or more => 2** 1 => 1 none => 0	2
		ORGANIZATIONAL FUNCTIONING			
		Self-organized and timely			
5a	**2.1**	For **Forest CMCouncils**: half-yearly council meeting organized by CMCommittee within last 7 months	Details: Last Formal council meeting organized on 29 April 2017	**Within last ≤7 months =>2** 8-12 months ago =>1 > 12 months ago =>0	2
5b	**2.1**	For **all other CMOs and**	Details: N/A	**Within last ≤13**	

		Indicator	Status (fill in figures given by informants or write in if different answer, circle appropriate score)	Categories	Score
		CBOs: EC organized AGM within last 13 months		**months =>2**	
				14-18 months ago =>1	
				> 18 months ago =>0	
		Record keeping			
6	**2.2**	If the CMO keeps minutes and records of its decisions by itself	Details: CMO keeps minutes and records by themselves. They follow-up agenda and decision. CMC office bearer are very active to maintain the meeting minutes	**All agenda items in last 2 meetings written up with solutions/ decisions => 2**	2
				Record of last 2 meetings written up but not for all agenda items => 1	
				Minutes and records not up to date, or filled in largely or all by project/NGO staff => 0	
		Financial management			
7	**2.3**	Accounts book and records maintenance in last 12 months	Details: CMC have the bank accounts and Well maintained by CMO. They maintain accounts procedure. CMC treasurer is skilled regarding this issue.	**Well maintained by CMO => 2**	2
				Satisfactory by CMO => 1	
				Not well maintained (not up to date, mistakes, none, filled in by project staff) => 0	
		Audit			
8	**2.4**	Date of last external audit and outcome (conducted e.g. by a govt. body or qualified auditor)	Details: Last audit conducted on May 7, 2017 firm (Shafiq-Bosak Audit firm). Audit Report is already submitted. Audit Firm audited the Accounts report but in the Audit report there is no outcome, findings & recommendation option.	**within last 12 months, satisfactory and got feedback => 2**	2
				Over 12 months ago got feedback => 1	
				None => 0	
		GOVERANCE AND INCLUSIVENESS			
		Changing leaders			
9	**3.1**	Date of last election of CMO (committee) office bearers	Date: Last date of CMC election 5 April 2016; earlier committee (1st committee) was formed on 30 May 2013 (so last election 11 months late)	**Within 3 months of constitution schedule => 2**	1
				4-12 months later than in constitution => 1	
				More than 12 months late (including never held election) => 0	
		Active participation of women			
10	**3.2**	Current role of women as office bearers or chairing sub-committees	Evidence: Ms. Monu Rani Paul is the president of gender sub-committee	**at least one office bearer or sub-committee chair => 2**	1
				only chair women's affairs => 1	
				no women office bearers or sub-committee chairs => 0	
		Active participation of poor			
11	**3.3**	Current role of poor (<50 dec and sell labor or actively fish) as office bearers or chairing sub-committees	Evidence: Mr. Abul Kashem is the sub-committee chair of Disaster Management committee and he is poor.	**at least one is an office bearer or sub-committee chair => 2**	2
				only chair poverty/welfare sub-committee => 1	
				none among office bearers or sub-committee chairs => 0	

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	Categories	Score
		Fair resource access			
12	**3.4**	CMO's current rules favor disadvantaged in access to resources in ways disadvantaged consider fair	Details: 1) CMC has policy for supporting disadvantaged. 2) Poor people have fair access in climate-resilient IGAs, demo support, value-chain, training etc. e.g. Poor VCF & CPG members are prioritized by CMC and FD in access to resources (60 poor VCF member received homestead demo support); 3) Poor CPG & VCF member received cow fattening support; 4) In the CMC there is representative of Ethnic Group. CMC ensured the participation of Tripura ethnic group who are living in the area of Barioyadhala National Park and poor Forest Dependent People in the Group get facilities from the project & also considered for Social Forestry Participants.	**Rules explicitly give preference to poor, women and ethnic minorities => 2** Rules give preference to at least one disadvantaged group but not all => 1 Rules do not favor disadvantaged, or disadvantaged say they are not fair => 0	2
		ADAPTIVE MANAGEMENT			
		Participatory planning			
13a	**4.1**	Management planning process (co-management body) - current annual plan	Details: CMC has Annual Development Plan (ADP: 2017-18) & Long Term Plan (2016-2026) which prepared in collaboration with Forest Department (FD)	**One plan jointly prepared by co-management stakeholders including GOB => 2** Separate plans of GOB and community/co-management body, some adjustment to modify for consistency => 1 Separate plans and not coordinated in participatory way, or with little participation from community members => 0	2
13b	**4.1**	Management planning process (community organization) - current annual plan	Details: N/A	**Plan prepared by CBO with full member participation and informed/ endorsed by Govt (record of GOB advice or endorsement) => 2** Plan prepared by CBO but limited participation => 1 No plan or plan driven by outsiders and not made in participatory way => 0	
		Climate Change Resilience			
14	**4.2**	Current management plan takes account of hazards and risks	Details: Disaster Management sub-committee is formed. CMC prepared site specific Forest Fire Management Plan. In the ADP & Long Term Plan forest fire control is addressed. At the time of plan preparation CMC consider hazards and risks. But no specific contingency plan. Baroiyadhala CMO have specific Written Forest Fire	**Yes - explicitly includes contingency plans or considered what would happen if hazard occurred in planning activities => 2** Yes - not written in plan but e.g. taken up	2

		Indicator	**Status** (fill in figures given by informants or write in if different answer, circle appropriate score)	**Categories**	**Score**
			Management Plan.	activities that are less vulnerable to risks => 1	
				No => 0	
15	**Ind 8**	If CMO has provided information on risks or hazard events in last year?	Details and estimated number of households informed: 1) CMC provided climatic hazard information at community level during VCF level adaptation planning and estimated number of households informed; 2) CMC organized school level climate change information, Natural Resource management and hazard risk reduction information sharing program on 17 May 2017 and collected signed copy of informed people (138) at Nizampur Muslim High School; 3) To raise awareness among the local people CMC arrange miking against Forest Fire dated on 30 January 2017.	Warned community about one or more hazard events => 2	2
				Informed community about future risks or environmental trends => 2	
				Discussed risks in meeting but not with general members or wider community => 1	
				No => 0	
		Conflict resolution			
16	**4.3**	Conflict and dispute resolution among CMO members and stakeholders in the area during term of current leaders/last year (whichever is longer)	Details: in 2017 with help of CPGs & CMC member FD representative seized the illegal log trafficking at Bortakia area and solved the issues but is not documented by written. Like as many other also. In the regular meeting CMC discussed on different issues and try to solve. President and other members are very active. Through forming a sub-committee CMC taken initiative to solve the conflict between FD and villagers (local community). CMC sub-committee solve the case and Local community & Forest Department both are happy. There is some other success but no documentation to place	**leaders skilled in this, have resolved conflicts and perceived to be just => 2**	2
				conflicts resolved but not seen as fair by all => 1	
				conflicts persist unresolved => 0	
		Monitoring and Learning			
17	**4.4**	CMO regularly discusses monitoring results and uses this in decisions that it documents in last year	Details: CMC president leaded Participatory Ecological monitoring team is here. Some discussion on monitoring results regarding effects of Forest Fire & Forest resource collection, CPG leaded monitoring and bird monitoring result which also documented in the CMC meeting minutes	**yes, documented in records => 2**	2
				some discussion but use in decisions not clear or documented => 1	
				no, including no monitoring or not used => 0	
		RESOURCE MOBILIZATION			
		Capacity to mobilize			
18	**5.1**	If the CMO has a realistic "business plan" (income and expenditure including fund raising) designed to cover its functioning and planned actions that it is following	Details: Baroiyadhala CMC prepared their own written business plan covering different business trade which also termed as sustainability plan of Baroiyadhala CMC. This planned action is functioning (Tom-Tom, boat riding, cow fattening, tourist shop and fish culture) at present.	**Yes, written plan and covers planned actions => 2**	2
				Yes, but unwritten or not covering plans => 1	
				No => 0	
		Regular funding			
19	**5.2**	If the CMO had sufficient regular funding to meet its functioning and planned actions in last 12 months	Details: CMC continuous funding source (Tom-Tom, boat riding, cow fattening, tourist shop and fish culture) not cover the planned action of last 12 months but the CMC hope it will cover the planned action in near future. CMC income from	**100% or more of needed funds available => 2**	0
				66% to 99% funds were available, and no debt => 1	

		Indicator	Status (fill in figures given by informants or write in if different answer, circle appropriate score)	Categories	Score
			non-CREL sources BDT 89417/- (Cow Fattening, Tom-tom, Paddle Boat, Camping). Tom-tom, Paddle Boat and Camping is very potential which is started since July 2017.	Under 66% available, or in debt, or any key activities halted for lack of funds => 0	
		OTHER			
		Comments - any key issues affecting the status or performance of the CMO that are not properly reflected in the assessment format. Impressions about the acceptance of the CMO in wider community, acceptance of its leaders, its sustainability. Any other problems or achievements/advantages of the CMO	CMC made aware the community people to protect the Natural Forest which is not reflected in the assessment.		
		Assessment made by:	President & FD representative Jaldi CMC; Site Team, CMC president, Member Secretary, CMC Treasurer, Beat Officer and members of CMO		

	Criteria and indicators	Score
	OVERALL (%)	***88.24***
1	**LEGITIMACY**	
1.1	*Government recognition of CMO*	2
1.2	*CBO representation in co-management*	2
1.3	*Local government support*	2
2	**ORGANIZATION FUNCTIONING**	
2.1	*Timely self-organizing*	2
2.2	*Record keeping*	2
2.3	*Financial management*	2
2.4	*Audit*	2
3	**GOVERNANCE AND INCLUSIVENESS**	
3.1	*Electing and changing leaders*	1
3.2	*Active participation of women*	1
3.3	*Active participation of poor*	2
3.4	*Fair access to resources for disadvantaged*	2
4	**ADAPTIVE PARTICIPATORY MANAGEMENT**	
4.1	*Participatory planning*	2
4.2	*Climate change planning*	2
4.3	*Conflict resolution*	2
4.4	*Monitoring*	2
5	**RESOURCE MOBILIZATION**	
5.1	*Capacity to mobilize*	2
5.2	*Regular funding*	0
Ind 5	Requests for support	2
Ind 8	Climate information dissemination	2