



Institutional Mapping for Climate-Resilient Ecosystems and Livelihoods (CREL)

Dhaka

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USAID's Climate-Resilient Ecosystems and Livelihoods (CREL) Project



Institutional Mapping for Climate-Resilient Ecosystems and Livelihoods (CREL)

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Prepared by : Bangladesh Centre for Advanced Studies (BCAS)
Md. Golam Rabbani
Training Specialist

Dr. Samarendra Karmakar
Vulnerability Assessment and Capacity Development
Expert

Md. Faisal Moarafur Rasul
Research Officer

**Editing And
Technical
Assistance** : Utpal Dutta
Manager, Institutional Development
Enhanced Knowledge and Capacity of Stakeholder

M. A Wahab
Senior Training Specialist (NRM)
Enhanced Knowledge and Capacity of Stakeholder

Dr. Dwijen Mallick
Climate Change Adaptation Specialist

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LIST OF ACRONYMS

CMC	Co-management Committee
CMO	Co-management Organization
CREL	Climate-Resilient Ecosystems and Livelihoods
ECA	Ecologically Critical Area
FD	Bangladesh Forest Department
FRUG	Federation of Resource User Groups
IPAC	Integrated Protected Area Co-Management
MACH	Management of Aquatic Ecosystems through Community Husbandry
MOFL	Ministry of Fisheries and Livestock
MOL	Ministry of Land
MoU	Memorandum of Understanding
NRM	Natural Resource Management
NSP	Nishorgo Support Program
PA	Protected Area
PF	People's Forum
RMO	Resource Management Organization
RUG	Resource User Group
VCF	Village Conservation Forum
VCG	Village Conservation Group

1. Introduction

The goal of the Climate Resilient Ecosystems and Livelihoods (CREL) project is to scale up and adapt successful co-management models to conserve ecosystems and protected areas (PAs), improve governance of natural resources and biodiversity, and increase resilience to climate change through improved planning and livelihood diversification. Winrock international, a US non-governmental organization (NGO) and leader in natural resources co-management, has selected a team that understands the Bangladesh context and has a history of successful solutions for climate adaptation, ecosystem conservation, rural livelihoods, economic growth, leveraging of multi-sector partnerships and bringing pilot approaches.

The CREL-BCAS team has a deep understanding of complex, interconnected issues of governance, tenure rights, natural resource policy, decentralization, and financial mechanisms to support sustainable Natural Resource Management in Bangladesh. Before initiating CREL project, USAID funded two projects such as MACH (Management of Aquatic Ecosystems through Community Husbandry) project which worked on wetland protected area (PAs) and IPAC (Integrated Protected Area Co-management) focused on forest and wetland (PAs). The USAID funded project CREL approach is to incorporate lessons learned from MACH, the Nishorgo Support Program (NSP), and the Integrated Protected Area Co-management (IPAC) projects to ensure sustainability and adapt political, social, and economic conditions and consider need of different landscapes.

To assess the capacity gap regarding climate change on the basis of CREL component 2, the assessment team identified individual and institutional stakeholders functioning at various levels of organization from government line ministries down to community-level civil society organizations. The CREL-BCAS team reviewed government agency (national, sub-national and local level) knowledge, understanding and mainstreaming of climate change resilience data through reports and professional consultations.

At the beginning of the institutional mapping, the CREL-BCAS team held discussions and consultation with CREL senior staff. Detail methodology and other aspects (e.g. Targeted interviewee, time frame, field visits etc.) related to this study were shared with CREL for necessary support and inputs. This was practically useful for conceptualizing, planning and methodological development of the study.

The CREL-BCAS team consulted with five key government departments of Bangladesh and assessed their current institutional capacity needs and priorities for institutional mapping. The key capacity needs include basic climate science, impact and vulnerability, adaptation and mitigation planning and implementation. The findings of Key Informant Interview (KII) and review of different materials are summarized below.

A number of climate change and capacity building related documents were collected from different sources and reviewed. The major sources for secondary documents include MOEF, DOE, FD, BMD, IUCN, CNRS, NACOM, CODEC, WB, ADB, CREL and BCAS etc.

A checklist was developed for interview with identified government and non-government partners to collect required information for assessing the institutions. A number of issues including existing institutional structure and policy on climate change, capacity building program on climate change related issues, participation in any training program on climate change, adaptation or mitigation and potential capacity building or training issues were main discussion points during the interviews. The checklist was also to capture the gaps in awareness, knowledge and understanding of climate change and Natural Resource Management of the study respondents of different institutions.

IPAC project was funded by USAID and implemented by Winrock International and local partners with the help of Ministry of Environment and Forests (MoEF) and Ministry of Fisheries and Livestock (MoFL), through a consortium of partners led by International Resources Group (IRG). IPAC project mainly focused on building a foundation of sustainability for co-management of integrated protected areas for conservation through the Nishorgo Network. This includes both policy and site-based field works. There are three types of protected areas in Bangladesh

Forest, Wetland and ECA (Ecological critical area). IPAC worked in 25 out of 35 Protected Area at that time in Bangladesh. CREL needs to ensure strong institutional capacity for the better outcome of the project. MACH project was supported by USAID and the Government of Bangladesh and implemented by Winrock International, CNRS, Caritas and BCAS working closely with Department of Fisheries and Ministry of Fisheries and Livestock. The key elements of the MACH approach were:

- Establishment of community organizations
- Sustainable wise use of wetland resources.

The organizations involved comprise: 16 Resource Management Organizations representing all local people with interests in wetlands and fisheries, 13 Federations of Resource User Groups comprising of poor fishers and other poor wetland users, 25 Union *Parishads* and the administrations of 5 *upazilas*. Co-management was formalized through *upazila* Fisheries Committees where representatives of all bodies sit to coordinate and oversee management of the systems.

Regarding the assessment of the organizational capacity for the CREL project, the CREL-BCAS team identified following outcomes from the study:

CREL project has been working in wetland and forest protected area. The study has suggested that strong institutional capacity needs to be built in four different levels/categories addressing climate change, Natural Resource Management and Livelihoods. These are:

- [
- 1) Ministry: Ministry of environment and forest, Ministry of Land, Ministry of Fisheries and Livestock,
 - 2) Agency: Department of forest, department of fisheries, department of environment
 - 3) District: Deputy Commissioner (DC), *Upazila* commissioner, Union perished, Parliament member (MP)
 - 4) Local Level: Local level stakeholder can be sorted out in three different categories:
 - 1) Resource system
 - 2) Gender wise
 - 3) Age wise

The study of the roles and responsibility of the Actors and Stakeholders revealed that all the stakeholders have unique roles and responsibilities in this project. Government stakeholders follow their own rules and structures. In order to ensure active participation in co-management of the stakeholders in and around the forest and wetland Protected Areas, Co-management institutions will have to be formed and they will have to play very active roles for the overall project outcome. The study identified that IPAC failed to engage local community in the overall activity of the project. CREL project needs to engage more local community to realize that this project will be working for the betterment of their community which will help to conserve ecosystems and manage Natural Resources in relation to climate change impacts and vulnerability.

Regarding the strengths and weakness of the Actors/Stakeholders' capacity needs in NRM, CCA/M, DRR and livelihood, the study has identified that Community people have more practical knowledge than any other stakeholders. They have gained knowledge through experience. Local community people may not understand the theoretical knowledge on climate change and its impacts on the society but they surely sense the change and its impacts on their community.

Not all the Government stakeholders have the same capacity and understanding on climate change, adaptation and mitigation, Natural Resource Management or disaster risk reduction. Some of the departments have more capacity than others. For example: Ministry of Environment and Forest and the Department of Environment have more capacity on climate change and relevant issues than any other government stakeholders. The study recommends that CREL team needs to identify different level stakeholders including GoB, NGO and local community peoples' organization for providing capacity building program in relation to climate change and its impact on the society, Mitigation and Adaptation, Natural Resource Management and Alternative Livelihood.

The assessment found out that Training and Capacity Building on the climate change challenge and Natural Resource Management is one of the major requirements for all sectors at all levels to make the affected community and ecosystems more climate resilient. Capacity can be built in two ways, Institutional capacity building and Skill development capacity building. As needed by the stakeholders, a number of topics have been suggested as “common issue of training” for CREL project partners (both GoB and NGOs). Some recommendations have also been made for the sustainability of the objectives of the project.

It is felt that the stakeholders and actors at grassroots (VCF, RUG, CMO, CBOs) need training and capacity for understanding climate change impacts in their local contexts and developing adaptation, mitigation and NRM plans. Regarding financial planning of natural resource management for climate change adaptation and mitigation, the assessment on stakeholders found that both CMC (Co Management Committee) and RMO (Resource Management Organization) have individual financial plan. The CMC makes a financial plan for any project. The project grants money for landscape users and the users decide how to use all the money. RMO has an annual budget plan but most of the time financial inputs are highly dependent on the project budget.

2: Background

The Climate-Resilient Ecosystems and Livelihoods (CREL) project will scale up and adapt successful co-management models to conserve ecosystems and protected areas (PAs), improve governance of natural resources and biodiversity, and increase resilience to climate change through improved planning and livelihoods diversification.

The USAID’s CREL project approach is to engage stakeholders at all levels, create incentives for their active involvement, and forge partnerships to sustain long-term political and financial commitments to co-management of PAs by scaling up tested models. To achieve this, CREL project has to increase the knowledge base, strengthen capacity for policy analysis and legal reform, catalyze public support, and reinforce tenure and use rights. This project has the program to work in three regions of Bangladesh: The northeast region having forests and wetlands, the southwest region with forests and the southeast region having forests and coastal wetlands.

The diversity of institutions and combinations among partners are increasing within countries and across national and regional borders. To assess proper knowledge gap on the basis of CREL project, CREL-BCAS team has recognized different level stakeholders’ key actor Institutions and their existing relations with the community. The program has identified the existing distribution of power within the relevant stakeholders. Institutional mapping is an empirical and practical exercise, undertaken with a particular purpose in mind. This is a very important point in using stakeholder mapping effectively within the application of CREL project. The project reviewed government agency’s (national, sub-national and local level) knowledge, understanding and mainstreaming of climate change resilience data through reports and professional consultations.

The report focuses on current institutional capacity of different stakeholders within the CREL project area as well as some international, national and GoB partners. An important lesson is that long-term success depends on the sustainability of co-management organizations (CMOs), their ownership of planning processes, and equitably shared benefits.

2.1: Aims and objectives of institutional mapping

The aims of institutional mapping were to identify the key actors, stakeholders and institution at all level as well as to map out their role and responsibilities in relation to Natural Resource Management, climate change adaptation and mitigation, and Climate resilient livelihood in PA, wetland and Coastal Wetland and Mangroves.

To understand the context at the national level and to guide further analysis, the CREL team undertook an institutional mapping exercise. Key issues considered in the analysis are given below:

- Which organizations (governmental and non-governmental) are involved in addressing key issues and problems related to climate change, NRM and Livelihood?

- Do they have a mandate to address climate change issues?
- What are the policy or strategy documents that guide their work?
- Stakeholder mapping for CREL on building capacity to climate change, Natural Resource Management and Livelihood
- Strengths and weakness of the Actors/Stakeholders' capacity needs in NRM, CCA/M, DRR and livelihood
- Building capacity in the stakeholders
- Financial planning of natural resource management for climate change adaptation and mitigation
- Roles and Responsibilities of the Actors/Stakeholders and Institution (formal & informal) including VCF/PF/CMC/FD/DOF etc.

The institutional analysis provided useful information to plan the scope of the policy analysis, and to identify key stakeholders for further investigation.

This is the report of an institutional mapping which was carried out for the CREL project to achieve the above aspirations for the climate change adaptation, mitigation, ecosystem and livelihood. The following sections show the Approach and Methodology of the Institutional Mapping, Institutional Profiles, the role and responsibilities of different stakeholders/organizations, Review of IPAC project, Institutions Capacity Gaps, Selection of institutions, Expert Consultations and Venn diagram and Reporting. Finally, the last section presents the generic conclusions.

3. Approach and Methodology of the Institutional Mapping

3.1: Development of Conceptual and Methodological Framework

This section describes the conceptual and methodological framework used and elaborates key assumptions that were adopted in the study. The institutional mapping undertook a number of steps including review of documents, consultations, KII, and Venn diagram carried out as a part of institutional mapping and guides us to construct a correct institutional framework to build up capacity on climate change adaptation and mitigation, Ecosystem, Livelihood and NRM.

3.2: Selection of institutions

The institution selected by the consultations of CREL partners. To identify proper knowledge gap assessment, CREL team decided to select International, National, Regional and local level stakeholders. Selected stakeholders comprised with 8 Government agencies, 6 International Organization and 4 National NGO's/Development agencies.

3.3: Preparation of Instruments

The questionnaire was developed by CREL component-2 core team. CREL team at BCAS submitted the initial version of the questionnaire for approval and after some review the final checklist was prepared. The sample questionnaires are given in Appendix-I.

3.4: Institutional Visits and Interviews

The CREL-BCAS team visited different organizations including key GoB (Government of Bangladesh) departments and partner NGOs during April-May 2013 for collecting materials, KII and FGDs. The team gathered necessary information and documents for review with a view to prepare institutional mapping.

4. Review of IPAC

Review of documents from the Integrated Protected Area Co-management (IPAC) project was a key component in preparation of this institutional map for the CREL Project. The review is as follows:

IPAC focused on building a foundation of sustainability for co-management of integrated protected area conservation through the Nishorgo Network. This includes both policy and site-based fieldwork. Implementation completed through a modified matrix management approach. In matrix management, team members report to both a functional manager and a project manager. Under a functional manager, work is divided among groups – each

concentrating on their area of knowledge – located in a hierarchical organizational structure. IPAC put in place a modified matrix management system that addressed three layers of complexity:

- Obligations of staff and sub-contractors to the contractual outcomes of their technical specialties,
- Obligations of staff to their Cluster and site-based program, and
- Obligations of staff to support several crosscutting themes like gender.

IPAC project includes three main components:

- Development of a coherent strategy for integrated protected area co-management and biodiversity conservation, with supports for constituency building; visioning, policy analysis and strategy development; partnership building for sustainable financing and development of an outreach and communication strategy.
- Building stakeholder and institutional capacities; strengthening of existing training centers and development of new and innovative applied training courses; and development of local support services for integrated and participatory co-management initiatives.
- Site specific implementation of co-management in Protected Areas to continue field testing and institutionalization of proven approaches for integrated PA co-management; to scale up the network of co-managed of the PAs, expand support for Alternative Income Generation activities, Value Chain strengthening, robust public-private partnerships, leveraged conservation financing and local level outreach while contributing to improved welfare of rural communities through reduced vulnerability and increased adaptation to climate change, improved access to drinking water supplies and more secure and diversified livelihoods.

IPAC contributed to sustainable natural resource management and enhanced biodiversity conservation in targeted forest and wetland protected areas with the goal of preserving the ecological bio-diversity of Bangladesh while promoting equitable economic growth and strengthening environmental governance.

The technical support contract for the Integrated Protected Area Co-Management (IPAC) Project was awarded on June 4, 2008 by USAID/Bangladesh. IPAC provided technical advisory services and other supports over a five-year period (2008-2013) to the agencies of Government of Bangladesh responsible for the conservation of wetland and forest protected areas across Bangladesh.

IPAC implemented with the help of the Ministry of Environment and Forests (MoEF), and Ministry of Fisheries and Livestock (MoFL), through a consortium of partners led by International Resources Group (IRG).

5. Review of MACH

Like several other projects implemented in Bangladesh over the past decade, MACH worked to establish community based management systems. In addition to community organizations for the sustainable use and management of fish and wetland resources, MACH also worked to improve the livelihoods of poor wetland users and to empower them in decision making. The key differences were:

- The Resource Management Organizations (RMOs) were established to protect and sustain wetland resources represent all stakeholders.
- Separate organizations of poor people – Federations of Resource User Groups (FRUGs) were formed to help diversify and enhance their livelihoods.
- These community-based organizations (CBOs) were formally linked with local government (both Union *Parishads*–elected local councils, and *Upazila* or sub-district administration) through *Upazila* Fisheries Committees.
- Separate partner NGOs worked to support each of the types of body and their activities in a collaborative and coordinated way.

Resource Management Organizations (RMOs) were organized around wetland management areas that contained recognizable dry season water areas or systems (typically identifiable through a local name) but this followed a process of initial understanding, planning, and working in smaller parts of those areas with the communities. The RMO comprises of villagers – fishers, farmers, landless, local elites, men and women – who serve as representatives of the community, chosen from those living in and around the wetland management area and using its resources. The RMO is responsible for the management of the wetland resource including identifying appropriate management interventions through participatory planning, and implementing them.

It was key that the project took a flexible approach in the development of local institutions. The project staff considered the physical characteristics of the wetlands, the settlement of communities around the resource, pre-existing property rights (such as leases) to the wetlands and the social characteristics of the users. This required a high level of capacity in field based staffs that facilitate the process, and places stresses on project management.

In total, 16 RMOs have been formed, each covering from 2 to 20 villages, each with populations ranging from 555 to 1,580 households. Based on the choice made by villagers, the members of the general body of RMOs range from 40 to 173 people. The general members selected executive committees ranging in size from 13 to 21. The general body members wanted relatively large executive committees to ensure participation of all villages. Because of the nature of the wetland, under the four RMOs in Turag-Banshi site, there are 20 constituent committees (responsible for a deeper pocket within the wetland – a river section or *daha*), and in Kangsha-Malijhi site there are 18 village committees. At Hail Haor there are no such area based committees within the RMO.

6. Institutional Profiles

The roles of various stakeholders cover different aspects of inter-relationships between adaptation and mitigation. Stakeholders may be characterized according to their organizational structure (e.g., public or private), level of decision-making (e.g., policy, strategic planning, or operational implementation), spatial scale (e.g., local, national or international), time-frame of concern (e.g., short term to long term), and function within a network (e.g., single actor, stakeholder regime or multi-level institution). Stakeholders are exposed to a variety of risks, including financial, regulatory, strategic, operational, or to their reputations, physical assets, life and livelihoods. Decision-making may be motivated by climatic risks or climate change (e.g., climate-driven, climate-sensitive, climate-related) although many decisions related to adaptation and mitigation are not driven by climate change.

Risk may be defined as the probability times the consequence of a negative outcome, while uncertainty is often taken to represent structural and behavioral factors that are not readily captured in probability distributions. Although this distinction between risk and uncertainty is simplistic, stakeholder decision-making takes account of many factors: values, preferences and motivations; awareness and perception of climate change issues; negotiation, bargaining and social norms; analytical frameworks, information and monitoring systems; and relationships of power and politics.

The Government of Bangladesh has recognized the need of involvement of different relevant ministries and agencies, civil society and the business sector to address climate change and Natural Resource Management. It has also recognized that strengthening capacity of government especially the key agencies and departments is quite vital for sustainable development and adaptation to the adverse effects. The key agencies/departments need to plan, design and implement their development programmes in climate change friendly manner. The National Adaptation Programmes of Actions (NAPA) and Bangladesh Climate Change Strategy and Action Plan (BCCSAP) suggested several capacity building aspects to meet the challenges of climate change. These policy documents emphasized the needs of mainstreaming climate change mainly through strengthening of human resource capacity, institutional capacity and review of sectoral policies.

In 2005, the Climate Change Cell was established at the department level (at DoE) which is still active in the internal climate change related projects and programs.

Some other key ministries and departments also established Climate Change Cell for effective contribution in project planning, designing and implementation. But it is being recognized that they need capacity to increase awareness and understanding of climate change before planning and designing any climate change related projects. It is also generally recognized that the capacity strengthening is somehow happening at some of the key ministries and departments (at the central level) for example, Ministry of Environment and Forests, Department of Environment, Department of Forests, Ministry Disaster Management and Relief through especially Comprehensive Disaster Management Programme (CDMP). But there is a strong gap in climate change knowledge and understanding at the regional (Division/District) and local (Sub-district/Union level) of all the key agencies. In other words, the need of capacity building on climate change at the implementation of the key government agencies is vital.

The government is also keen to develop climate policy based on lessons and learning drawn from existing policy and institutional framework.

6.1: International Organizations

The CREL team selected some of the international organizations for assessing capacity gap analysis and their roles and impacts on the society in relation to climate change adaptation, mitigation, natural resource management and livelihood. Selected international organizations are:

SI No.	International Organizations
1	World Fish
2	Tetra Tech
3	IUCN
4	GIZ
5	FAO
6	UNDP

6.2: National NGOs

The CREL team also selected some well-known national NGO's for assessing their existing institutional capacity in relation to climate change and natural resource management issues. Selected national organizations are:

SI No.	National Organizations
1	CNRS
2	CODEC
3	NACOM

6.3: GoB Partners

To identify proper knowledge gap assessment, CREL-BCAS team has realized that government stakeholders have played a key role in the society. The team assessed some of the key government stakeholders. Selected GoB institutions are:

SI No.	National Organizations
1	DOF
2	MOEF
3	MOL
4	MOFL
5	FD
6	DOE
7	DOAE
8	BMD

The team also assessed Bangladesh Meteorological Department (BMD), because BMD takes regular observations of all meteorological/climate parameters and archive the data.

6.4: Local Organizations

CREL approach is to incorporate lessons learned from MACH, the Nishorgo Support Program (NSP), and the integrated Protected Area Co-management (IPAC) project to ensure sustainability in Natural resource management. Using lessons learned from these past experiences, CREL-BCAS team identified capacity gaps within the CMC, RMO and local level GoB stakeholders.

SI No.	Local Organizations
1	District Forest officer
2	District Fisheries officer
3	Upazilla Forest officer
4	Upazilla Fisheries officer
5	CMO, CMC, RMO, RUG

7. Institutional Capacity Gaps

The following presents the synthesized summary on the current status and gaps in the institutions regarding building capacity on climate change, natural resource management and biodiversity.

- It is recommended that CREL project has to build strong institutional policy and powerful stakeholder mapping for the project. IPAC only worked on co-management for Natural Resource Management but CREL project will have to work on climate resilient ecosystem and livelihood for sustainable Natural Resource Management through improved co-management.
- There are gaps in capacity building. Most organization doesn't have any capacity building program related to climate change adaptation and climate resilient ecosystems, livelihoods, etc.
- It is expected that the assessed training needs from national to local should be properly implemented in CREL project with a view to increase resiliency of Natural Resource, biodiversity and livelihood through effective co-management approach by the strong participation of the relevant stakeholders.
- A combined package of well-funded and targeted short and long term courses coupled by well thought out study tours constitute the training plan intervention in the short and long term perspectives. Such a strategic approach to capacity building will contribute significantly towards achievement of climate change outcomes in the CREL project.
- Training course would be conducted at three levels (Grassroots, Regional/PA levels and National levels).
- Integrate climate change in the education sector through capacity building for mainstreaming climate change in primary school curriculum and the teacher education curriculum.

7.1: Expert Consultations

A number of experts in different areas such as Natural Resource Management (NRM), climate change adaptation and mitigation, institutional design, organizational management were contacted to gather information and identify proper institutional knowledge gaps in the context of Bangladeshi institutions.

The individual experts consulted are given in the table below:

SI No	Name	Position	Institutions
1	Mr. Ratan Kumar Majumder	Deputy Chief Conservator of Forest	FD
2	Dr. Abu Wali Raghib Hassan	Project Director	DOAE
3	Mr. Mohammad Solaiman Haider	Deputy Director	DOE
4	Dr. Binay Kumar Chakraborty	Project Director	DOF
5	Dr. Samarandra Karmakar	Retired Director, BMD	BMD
6	Dr. Craig A Meisner	Director South Asia	World Fish
7	Dr. Istiak Sobhan	Programme Coordinator	IUCN
8	Mr. Anisur Rahman	Chairman	CNRS
9	Dr. Abdul Wahab	Director	NACOM
10	Mr. M.A. Wahab	Institutional Capacity Building Specialist	IPAC

The findings based on the consultations of experts are as follows:

1. Powerful Institutional Framework is required for National, Sub-national and local levels.
2. Strengthening of existing knowledge of co-management committees on NRM is required for Climate change adaptation & mitigation.
3. Naturally Community people have better adaptation knowledge than others.
4. Build capacity through intensive climate change training
5. Make a local NRM & climate fund for long term co-management sustainability after withdrawal of project support. This can be done by LGIs-NGOs-CBOs
6. IPAC emphasized on co-management of forest & wetland. CREL should emphasize on climate-resilient ecosystem and Livelihood.
7. IPAC works on 25 protected areas out of 35. CREL should work on all the protected areas of Bangladesh.
8. Necessary to strengthen existing training centers and development of new and innovative applied training courses; and development of local support services for integrated, participatory co-management.
9. Government stakeholders should be involved more intimately with the local community people to enhance any project.
10. CREL should take initiative to make a direct connection through *Upazila* service provider to national level stakeholders.
11. Capacity building programs related to climate change adaptation and climate resilient ecosystems, livelihoods, etc. should be addressed in the document.
12. Institutional Capacity Building should be addressed in relation to climate change adaptation and climate resilient ecosystems, livelihoods, etc.

7.2: Venn Diagrams

Stakeholder mapping (Venn diagram) is a visual method of identifying and representing perceptions of key organizations (both formal and informal) and individuals inside and outside a community, their importance, relationships, and decision making roles.

The procedure for generating these diagrams is as follows:

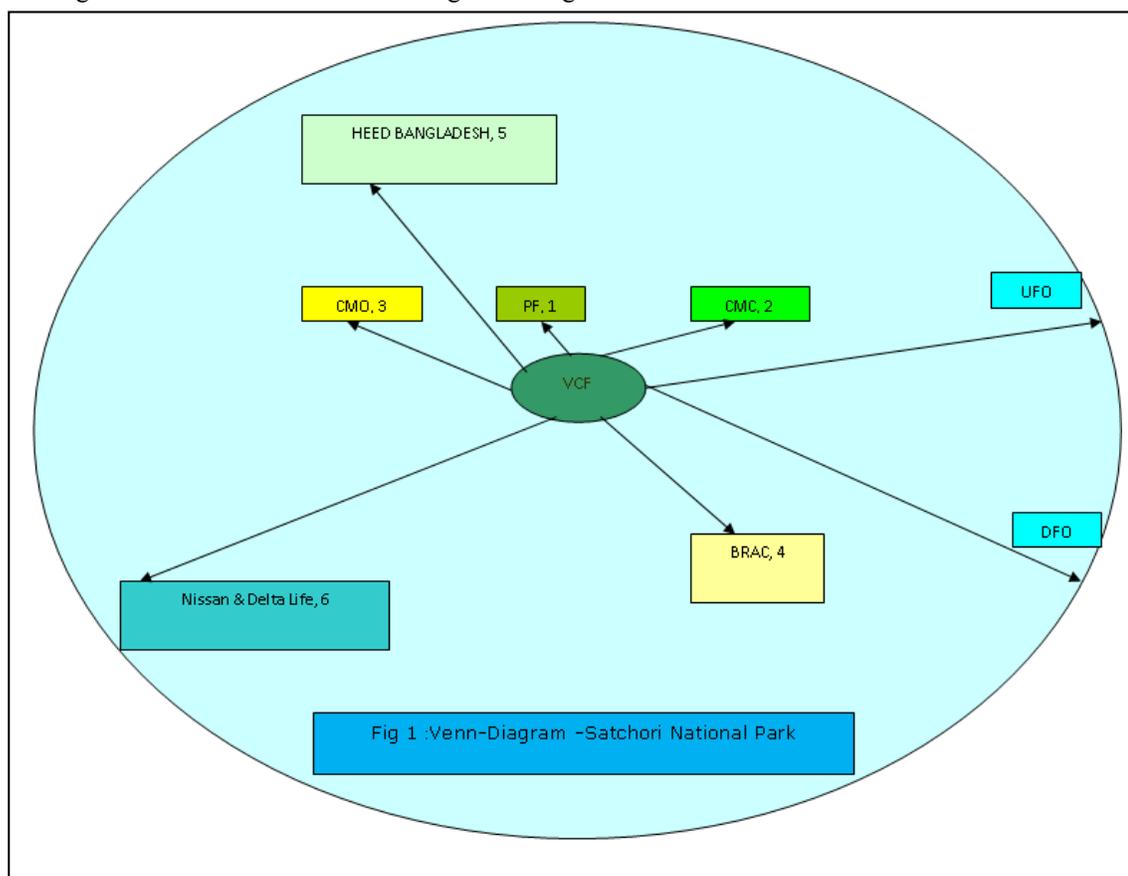
1. Agreed with participants about the scope of the exercise, an informal group was selected from local village.
2. The actors were listed, and they were given a symbol that everyone understands.
3. Circles were cut out of a card for each actor, ensured that everyone participates in the discussion regarding the size of circle.
4. Local participants discussed the positioning of the circles and made changes until a consensus was reached.
5. Discussed and analyzed the diagram.

7.2.1: Venn-Diagram of Tipra para, Chunarughat (VCF), Satchori National Park, Habiganj

Name of the Participants: Ruporshi Debborna, Mongasri Debborna, Romola Debborna, Khemaiti Debborna, Monguri Barma, Padma Rani Debborna, Bidida Lakshmi Debborna, Kornobala Debborna, Parul Borma, Urmilla Debborna, Sandharani Debborna, Sangjukta Debborna, Binoti Bhaumik, Bamonti Debborna, Bashunti Shawtal.

SI No.	Organization/Stakeholder name	Type of Services	Ranking
1	PF (Peoples Forum)	IPAC (Co-management)	1
2	CMC	IPAC (Co-management)	2
3	CMO	IPAC (Co-management)	3
4	BRAC	Livelihood	4
5	HEED Bangladesh	Livelihood	5
6	Nissan & Delta life	Livelihood and Insurance	6
7	UFO (<i>Upazila</i> Forest Officer)	No	0
8	DFO (District Forest Officer)	No	0

The Venn-Diagram for Satchori National Park is given in Fig. 1.

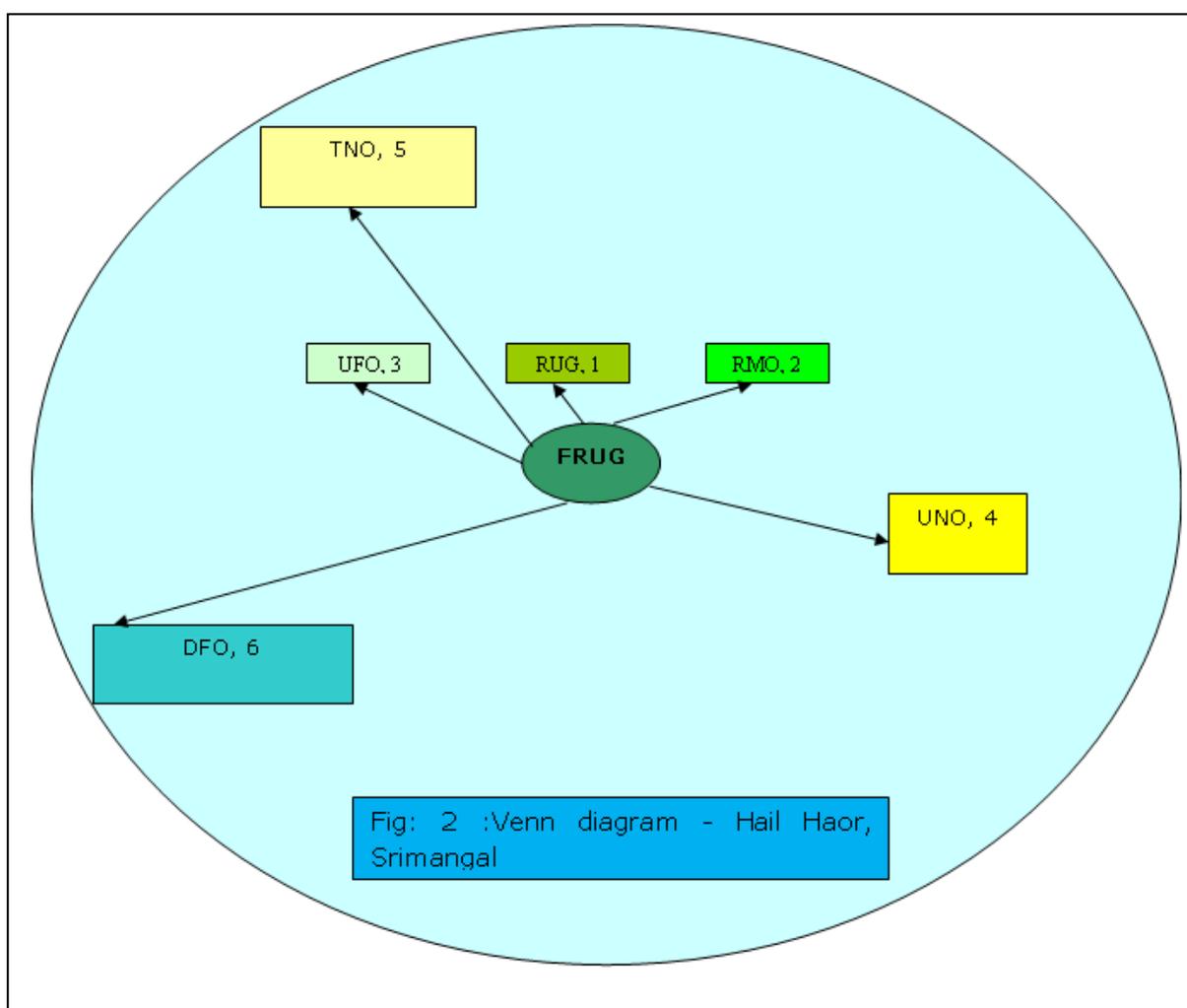


7.2.2 Venn Diagram of Borogunia (FRUG), Hail Haor, Srimangal

Name of the Participants: Kamaru, Safia Begum, Dilara Begum

SI No.	Organization/Stakeholder name	Type of Services	Ranking
1	RUG	IPAC & MACH (Co-management)	1
2	RMO	IPAC & MACH (Co-management)	2
3	UFO (Upazilla Fisheries Officer)	GOB	3
4	UNO	GOB	4
5	TNO	GOB	5
6	DFO (District Fisheries Officer)	GOB	6

The Venn-Diagram for Borogunia Hail *Haor* at Srimangal, is given in Fig. 2.

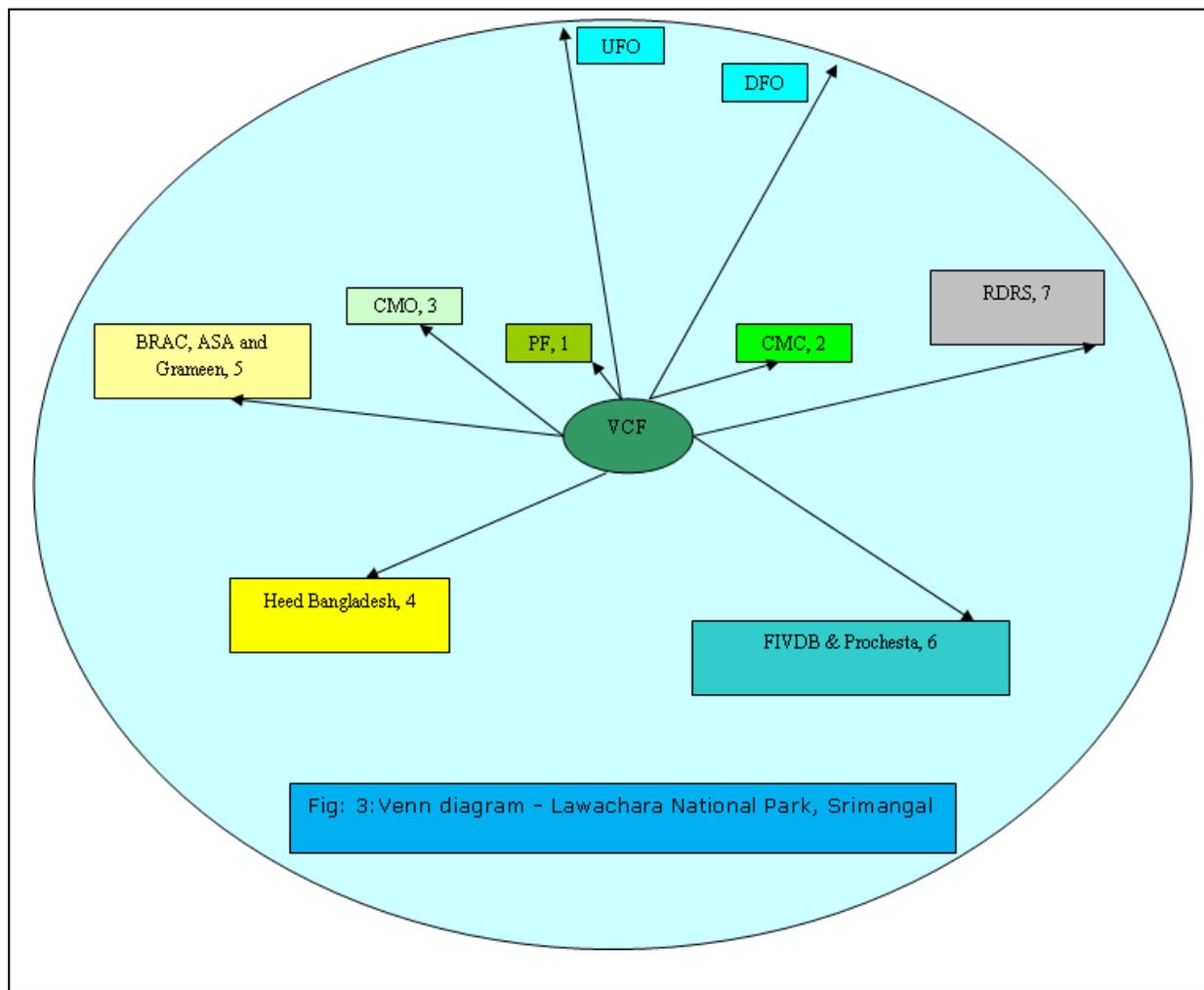


7.2.3 Venn Diagram of Langurpar (VCF), Lawachara National Park, Srimangal

Name of the Participants: Abdul Kader, Arif, Md. Ahad, Md. Yusuf, Khairun Begum, Nazma, Dilara, Peyarun Begum, Achina Begum, Dilara (2), Champa Begum, Safia, Fatema, Amina, Julekha Begum, MonabhanBiwi and Monir

SI No.	Organization/Stakeholder name	Type of Services	Ranking
1	PF	IPAC (Co-management)	1
2	CMC	IPAC (Co-management)	2
3	CMO	IPAC (Co-management)	3
4	HEEd Bangladesh	Livelihood and Health	4
5	BRAC, ASA and Grameen	Micro-Credit	5
6	FIVDB & Prochesta	Micro-Credit	6
7	RDRS	Micro-Credit	7
8	Upazilla Forest Officer	GOB	0
9	District Forest Officer	GOB	0

Venn diagram for Lawachara National Park, Srimangal is given in Fig. 3.



8 Conclusions

Institutional Mapping for CREL project was completed effectively with the research team able to consult numerous organizations for KII and TNA. It should be noted that, the team completed KII and TNA both in national, regional and local level to collect more detailed and important information's for stakeholder institutional mapping.

The Institutional Mapping Assessment made at national, regional and local levels draws a portrait of the existing situation in terms of capacities and stakeholders involved in addressing climate change adaptation and mitigation in ecosystem, biodiversity and livelihoods.

Climate change will be pivotal in redefining development in the twenty-first century. How nations, societies, communities, and households respond in their livelihood to the impacts of climate changes and variability to which the world has already been committed will in many instances determine their prospects for growth, equity, and sustainability. Given the potential magnitude of impending changes in institutional and social relationships, the gaps in current knowledge about the role of institutions in adapting to climate change, NRM and Livelihood are remarkably large.

The study team has noted that capacity building needs in climate change adaptation and mitigation are generally quite pronounced across all climate change management structures in the country. Knowledge and skill for climate change mitigation or climate science is generally poor at all levels. Almost all of the Govt. and non-Govt. organizations have no separate section/division for climate change activities.

The major contributing factor to the prevailing capacity situation has been the fact that climate change is an emerging phenomenon, much of which is also highly technical. This has hampered efforts for the country to come up with comprehensive policy guidelines that would guide climate change interventions and is probably a contributing factor that has affected progress in the implementation of the NAPA. Though the NAPA has many interesting proposals in black and white forms but in reality it has to be in practical action from top to bottom process to cope with climate change variability and extreme events that hampers the NRM, biodiversity and livelihoods of millions of poor in the country.

Appendix-I: Checklist/Questionnaire for Institutional Mapping on Climate Change under CREL Project

1. Would you kindly tell us if you have any division/section and personnel/staff in your department with specific responsibility on climate change issues? (Who, when the division started)
 - *Would you please tell us –do you have any cell or department that actually addressing the climate change adaptation issues? OR any one from the institution is responsible to work on climate change issues? who? from when? his designation or grade?*
 - *If you have climate change adaptation cell/dept, how it is performing? do you think that it is satisfactory? why?*
 - *Ar the people working with the cell are capable enough? if not why?*
 - *What sorts of institutional support (policy, fund, strategy, decisions) are receiving by the cell?*

2. Does your current institutional policy address capacity building of your own organizational staff on climate change issues?
 - *Do you have capacity building strategy that address climate change issues?*
 - *had you ever been done any TNA for the staffs?*
 - *Do you have plan to capacitize your staffs on climate change issues?*
 - *did your staffs receive any training/orientation about it? who are those staffs?*

3. Did your organization/department implement any climate change related capacity building project/programme in last few years? Does your organization/Department implements any climate change related capacity building project now?
 - *Did your organization/department implement any climate change related NGO project/programme in last few years?*
 - *Does your organization/Department implements any climate change related capacity building project now?*
 - *How many staffs are working there?*

4. Did your organization develop any capacity building materials on climate change related issues (or any organization developed for you) in recent past? If yes, would you please share with us?
5. Are you in view of proposing any climate related activity in your upcoming working plan/implementation plan/development plan?

Yes No (if no, move to question 6)

If yes, could you mention them?

- a)
- b)
- c)

6. How do you roughly rate the awareness level of your officials about climate? (Please tick one of the following)

Administrative Level	Climate Change Awareness level of the Organizational staff			
	Less than 25 %	25 - 50 %	50 – 75 %	75% above
Central Level (Head Office)				

Regional Level (Division and District)				
Local Level (Union and Upazilla)				

7. In your opinion, what are the training programmes that you need to strengthen capacity of your organizational staff at different levels to address climate change?
- 7.1. How did you prepare/procedure climate change training curriculum and setting of CC training objectives? Who arrange and conducted the training on climate change?
- 7.2. General topic/sessions on climate change issues

SL	General topic/session on climate change training issues	Capacity building needs at administrative level		
		Central(Govt./NGO)	Regional (Govt./NGO)	Local/CMOs/Stakeholders
1				
2				
3				
4				
5				

- 7.3. Sector specific topic on climate change issues for capacity building training on climate change

SL	Specific Topic/sessions for your Organizational staff	Capacity building needs at administrative level		
		Central (Govt./NGO)	Regional (Govt./NGO)	Local/CMOs
1				
2				
3				
4				
5				

- 7.4. What tools/methods used for vulnerability assessment of climate change at community level for CC training purpose?
- 7.5. Do they have a mandate to address climate change issues?
- 7.6. What are the policy or strategy documents that guide their work?
- 7.7. Stakeholder mapping for CREL on building capacity to climate change, Natural Resource Management and Livelihood
- 7.8. Strengths and weakness of the Actors/Stakeholders' capacity needs in NRM, CCA/M, DRR and livelihood
- 7.9. Building capacity of the stakeholders
- 7.10. Roles and Responsibilities of the Actors/Stakeholders and Institution (formal & informal) including VCF/PF/CMC/FD/DOF etc.
- 7.11. Financial planning of natural resource management for climate change adaptation and mitigation
- 7.12. Which organizations (governmental and non-governmental) are involved in addressing key issues and problems related to climate change, NRM and Livelihood?
- 7.13. Are there any climate change adaptation and mitigation training session, if yes please mention elaborately.