

Gates Foundation



STRENGTHENING DISASTER MANAGEMENT INFORMATION CENTERS (DMICS) IN BANGLADESH

Bangladesh Preparedness Partnership (BPP) Phase 2

April 2025



Gates Foundation



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EXECUTIVE SUMMARY

Bangladesh is one of the most disaster-prone countries in the world, facing a wide range of both natural and man-made disasters. As a result, mitigating these risks and minimizing associated losses has become a national priority. The Government of Bangladesh (GoB) collaborates with various stakeholders in disaster management to establish strategic partnerships between relevant government departments and key development partners. **Many of these partners engage in collaborative projects with the GoB, focusing on risk reduction, resilience, disaster preparedness, and response.** These initiatives aim to enhance the nation's capability to prepare for and respond to disasters. One organization involved in such projects is the Asian Disaster Preparedness Center (ADPC). They have conducted joint projects to build emergency response capacity with several South and East Asian countries, gaining extensive experience in improving emergency coordination and management.

In 2018, the ADPC and the GoB launched a joint project called the "Bangladesh Preparedness Partnership (BPP)." The second phase of this project, which is being implemented from 2023 to 2026, is currently being co-managed by ADPC under the leadership and guidance of the Ministry of Disaster Management and Relief (MoDMR). Bangladesh has well-established disaster response coordination systems at the national, district, and local levels.. **One of the primary objectives of BPP Phase 2 is to enhance these national and sub-national coordination systems by strengthening emergency operations centers.**

In 2009, the UN's "Comprehensive Disaster Management Program" introduced the concept of Disaster Management Information Centers (DMICs) at national, district, and upazila levels. This program equipped the centers with modern information and communication technology, while a separate project provided non-technical equipment. The goal was to create a process for acquiring and sharing relevant information in a timely manner with stakeholders during both regular and emergency situations. This initiative aimed to support risk reduction activities and enhance real-time emergency responses.

Since 2018, the GoB has constructed 65 three-story buildings to serve as DMICs. These centers aid in data collection through a network of disaster management structures at the district, upazila, and union levels. However, the DMICs are currently underutilized. **The MoDMR has recognized this issue and has requested that Phase 2 facilitate the strengthening and operation of three district DMICs to create a proof of concept for future expansion.**

From 2024 to 2026, under BPP Phase 2, ADPC will conduct a study of three District DMICs to enhance their operations and provide recommendations for improving the nationwide DMIC network. The study will include in-country visits to the districts of Cox's Bazar, Kurigram, and Bagerhat, as well as to national ministries and departments in Dhaka. The ADPC study team engaged with key stakeholders from various organizations, including the Ministry of Disaster Management and Relief (MoDMR), the Department of Disaster Management (DDM), the Bangladesh Meteorological Department (BMD), the Flood Forecasting and Warning Center (FFWC), the Cyclone Preparedness Program (CPP), and other relevant stakeholders. Upon returning to the capital, the team organized a final National Consultation Workshop focused on DMICs. The workshop, titled "Strengthening Disaster Management Information Centers," was attended by 47 participants from various government ministries, departments, academic institutions, and non-governmental organizations.

The primary goal of this study is to examine the operations of the DMICs, identify any gaps and needs, and offer recommendations for developing a proposal for a pilot program. This program aims to enhance the operations of these facilities in three districts and to improve the overall nationwide DMIC network. This proposal will highlight the current strengths of the three centers and outline the necessary tasks to enhance their operations. Once the initial report is completed and approved by the GoB, the ADPC team will collaborate closely with stakeholders to develop and finalize the operational guidelines, standard operating procedures (SOPs), and other technical documents essential for

improving the functioning of the DMICs. They will also design a simulation exercise plan and conduct simulation exercises and debrief sessions to further prepare and operationalize the network.

The GoB established the DMIC network to collect, organize, store, and share information in a timely and accurate manner. This study found that while the network has the necessary framework in place—such as buildings, organizations like disaster management committees, and information transmission pathways—the actual processes have shifted from relying on centralized facilities to depending more on individual efforts.

Key challenges identified through the DMIC scoping exercise include:

-  **Lack of skilled human resources**
-  **Outdated equipment**
-  **Staff shortages**
-  **Limited digital integration**
-  **Absence of formal government policy for DMIC operations**
-  **Insufficient funding**
-  **Lack of dedicated or responsible agencies to operate the DMICs**

Currently, the physical DMIC buildings are either vacant or occupied by other personnel, rendering them ineffective for their intended purpose. Furthermore, the National DMIC is inactive and not performing well, although the Emergency Operations Center (EOC) is fulfilling its role at the DDM.

To address these issues, the study proposes a set of actionable recommendations:

-  **Establish a legal and policy framework for DMIC operations**
-  **Assign a dedicated Officer-in-Charge (OIC) at each DMIC**
-  **Strengthen DMICs with updated hardware, software, and staff training**
-  **Secure disaster management funding through multi-stakeholder partnerships**
-  **Collaborate with mobile network providers for SMS-based alert systems**
-  **Institutionalize DMICs through academic integration**
-  **Conduct regular, harmonized simulation exercises to ensure operational readiness**

The team highlighted a number of fundamental requirements for the effective operationalization of ECC/EOC and DMIC networks. These are contained in Chapter 5, and a total of 32 recommendations resulting from the study and from input from the National Consultation Workshop are contained in Chapter 6.

One of the core short-term recommendations contained in Chapter 6 is to activate the DMIC system to the level envisaged by equipping, staffing, and fully operationalizing the National DMIC and the three District DMICs. A list of proposed equipment necessary for the full operationalization of the centers, aimed at enabling the proof of concept, can be found in Annexure J.

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LIST OF ABBREVIATIONS

ADPC	Asian Disaster Preparedness Center
APP	Asian Preparedness Partnership
ARPD RR	Asian Regional Plan for Disaster Risk Reduction
BDRCS	Bangladesh Red Crescent Society
BMD	Bangladesh Meteorological Department
BWDB	Bangladesh Water Development Board
BMGF	Bill and Melinda Gates Foundation
BPP	Bangladesh Preparedness Partnership
CDMP	Comprehensive Disaster Management Program
CPP	Cyclone Preparedness Program
DDM	Department of Disaster Management
DDMO	District Disaster Management Officer
DFID UK	Department for International Development, United Kingdom
DMC	Disaster Management Committee
DMIC	Disaster Management Information Center
DMI-N	Disaster Management Information Network
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DRRO	District Relief and Rehabilitation Officer
EC	European Commission
ECC	Emergency Coordination Center
EOC	Emergency Operations Center
FFWC	Flood Forecasting and Warning Center
FGD	Focal Group Discussions
GOB	Government of Bangladesh
ICT	Information and Communications Technology
IFRC	International Federation of Red Cross and Red Crescent Societies
KII	Key Informant Interview
MODMR	Ministry of Disaster Management and Relief
NDRCC	National Disaster Response Coordination Center
NEOC	National EOC
NGO	Non-Governmental Organization
NPDM	National Plan for Disaster Management
PIO	Project Implementation Officer
SDG	Sustainable Development Goals
SFDRR	Sendai Framework for Disaster Risk Reduction
SMS	Short Message Service
SOD	Standing Orders on Disaster

SOP	STANDARD OPERATING PROCEDURE
UN	UNITED NATIONS
UDMO	UPAZILA DISASTER MANAGEMENT OFFICER
UNICEF	UNITED NATIONS CHILDREN'S FUND
UNDP	UNITED NATIONS DEVELOPMENT PROGRAM
UNDRR	UNITED NATIONS OFFICE FOR DISASTER RISK REDUCTION
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT



CHAPTER ONE

Introduction and General Background

1.1 Introduction

The People's Republic of Bangladesh in South Asia is the eighth-most populous country in the world, the twelfth-most densely populated, with a population of approximately 171.5 million (World Health Organization 2023) and a total landmass of 147,570 square kilometres (Bangladesh Ministry of Foreign Affairs). It shares land borders with India to the north, east, and west, Myanmar to the southeast, while to the south, its coastline borders the Bay of Bengal. It is a low-lying deltaic country affected by the Ganges, Brahmaputra, and Meghna rivers, which flow down from India, creating a vast network of rivers, streams, drains, and canals.

It has a tropical monsoon climate characterized by wide seasonal variations in rainfall and is subjected to the annual glacial runoff from the major rivers originating in Nepal and the Himalayas. It sits at the apex of the funnel in the Bay of Bengal created by the land masses of India and Myanmar with ocean storms and cyclones originating from the bay regularly affecting the southern districts with storm surges and flooding.

The country is one of the most disaster-prone in the world, currently ranking ninth in the top ten disaster risk hotspots out of 193 countries listed in the World Risk Index (World Risk Report 2024). It consistently faces a variety of natural and non-natural hazards. These include river flooding, flash flooding, landslides, cyclones, storm surges, riverbank erosion, earthquakes, droughts, salinity intrusion, fires, building collapses, chemical accidents, thunderstorms, and arsenic contamination of groundwater. Due to the impact of floods and cyclones and the country's low elevation, 25% to 30% of all land area can be inundated during normal monsoon and cyclone seasons (Hossain, 2018, Reported in UNDRR Status Report on Disaster Risk Reduction in Bangladesh 2020). With a rapidly increasing population, urbanization, and increased levels of industrialization, the human, property, livestock, food production, and financial losses caused by these disasters continue to cause significant threats to the nation's progress and development.

The increasing frequency of extreme weather events with wide-scale impacts underscores the need for an integrated disaster management system with effective and efficient information management structures such as Disaster Coordination Centers (DCCs) or Disaster Management Information Centers (DMICs). Due to its disaster-prone nature, the country needs improved and better-coordinated disaster management structures to further reduce disaster risk and improve its preparations for and responses to disasters. This report examines how strengthening the disaster management information center network can enhance disaster preparedness and response.

1.2 General Background

Over many years, disasters have caused significant human, property, and financial losses to the country. As a result, planning for reducing the risks and losses created by these hazards and preparing for actions to be taken before, during, and after such events occur has been and is being treated as a national priority by the Government of Bangladesh (GoB). From 2019 to 2022, the government produced several important policy documents. These include the Standing Orders on Disaster 2019 (SOD 2019) and the National Plan for Disaster Management (NPDM) 2021-2025, both issued under the authority of the Disaster Management Act 2012. These policies are key drivers for enhancing effective disaster risk management.

1.2.1. Government Policy Documents

To reduce the impact of disasters, the GoB formulated its first Standing Orders on Disaster (SOD) in 1997 and has updated this in 2010 and again in 2019. The main objective behind the formation of SOD 2019 is to inform and guide all stakeholders regarding their roles and responsibilities at every stage of disaster management, from the national level to the community level. The updated SOD outlines specific responsibilities and duties to be followed by all organizations that play pivotal roles in creating a disaster-resilient country through establishing well-coordinated search-and-rescue operations, humanitarian assistance, and rehabilitation work.

The NPDM 2021–2025 is the strategic plan to guide the implementation of Disaster Management in the light of the GoB's vision, mission, and national and international approaches and its plans and programs on DRM. It emphasizes addressing disaster risks faced by vulnerable communities in the disaster-prone areas of the country, aiming towards disaster risk reduction and building resilience. The NPDM is broadly based on SOD 2019.

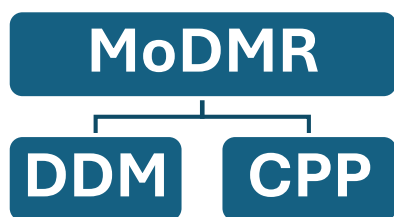
These documents illustrate a holistic approach towards disaster management and risk reduction, where the emphasis is on working together with all stakeholders to build strategic and scientific partnerships with all relevant government departments, agencies, and other key non-government players including NGOs, academia, technical institutions, the private sector and development partners.

The current NPDM makes little mention of a DMIC network. However, paragraph 1.3 on “Achievements, Lessons and Remaining Gaps of NPDM 2016-2020” notes that the following needs to be addressed in the next plan:

Coherent information management is the key to good disaster response: The current system of information generation and dissemination by multiple agencies (DMIC, NDRCC and AFD) requires more coordination. The Government needs to develop a vision for the more appropriate system and then move forward towards it so that all future investments in this area clearly contribute to the achievement of the agreed vision. **(NPDM 2021-2025 Paragraph 1.3)**

1.2.2. The Ministry of Disaster Management and Relief (MoDMR)

Under SOD 2019, the main responsibility for Disaster Risk Management is entrusted to the Ministry of Disaster Management and Relief (MoDMR). This ministry plays a key role in the formulation of policies, laws, and regulations and is responsible for planning, implementation, and monitoring of DRM programs. The MoDMR is responsible for the National Disaster Response Coordination Center (NDRCC), which is situated within the ministry. The NDRCC is the conduit for weather warnings issued by the Bangladesh Meteorological Department (BMD), the Bangladesh Space Research and Remote Sensing Organization (SPARRSO), and the Bangladesh Water Development Boards (BWDB) Flood Forecasting and Warning Center (FFWC). They also provide information to senior levels of the government and to various DRM committees at the national level.



Under its authority, the MoDMR has two operational organizations. The Department of Disaster Management (DDM) and the Cyclone Preparedness Program (CPP). Both are tasked with assisting the ministry in implementing disaster risk reduction, preparedness, humanitarian assistance, and recovery activities. The DDM hosts an Emergency Operations Center (EOC) and the National Disaster Management Information Center (N-DMIC), although this center is currently not functional.

1.2.3. The Disaster Management Information Center Network

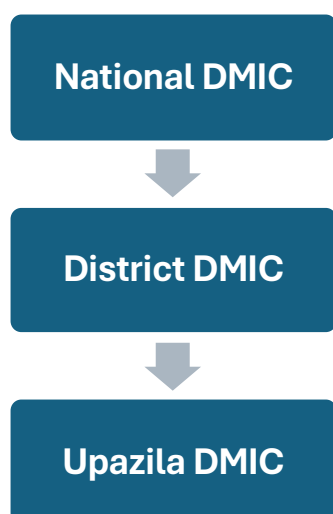
The United Nations Office for Project Services in collaboration with the GoB, ran the 'Comprehensive Disaster Management Programme (CDMP)' from 2004-2014. The project sought to move the disaster management emphasis in Bangladesh from a focus on response and relief to a broader and more encompassing holistic risk management framework.

In 2009, The CDMP developed the concept of Disaster Management Information Centers (DMICs) at national, district, and upazila levels, equipping them with modern Information and Communication Technology (ICT) equipment, while non-ICT equipment was provided by a separate World Bank project. The aim was to set up a process to acquire and share topical information needed during normal and emergency periods with relevant stakeholders to support risk reduction activities and to assist in real-time emergency response. The programme's goal in setting-up the DMIC network is shown below.

DMIC GOAL

The DMIC will implement effective information sharing among disaster management agencies and communities, for all hazards, in all sectors, in normal times and emergencies, throughout the nation and regionally, to support sustainable risk reduction and emergency response capacity.

Source: CDMP DMIC Needs Assessment Jun 8, 2006.



Later, from 2018 to 2024 the GoB constructed 65 multi-storied buildings as DMIC hubs at district level to enable the collection of data through its network using disaster management structures from district, upazila and union levels.

The planned process was for national level to pass information down through districts to upazilas and for the information flow to reverse from upazila back through district to national. The national DMIC would then be responsible to feed relevant information to NDRCC and through them to the various National Disaster Management Committees.

1.2.4. Aid to the Government of Bangladesh

Since its independence in 1971, Bangladesh has had a long history of working with international humanitarian and development organizations, with international aid of food and other assistance being provided during the country's many natural disasters. Several organizations have or are conducting collaborative projects with the GoB in the areas of risk reduction, disaster resilience, flood minimization and management, agricultural development, disaster management, early warning systems, and others to empower and enhance the resilience and preparedness of the nation for responding to and managing disasters. One of these collaborative projects is with the Asian Disaster Preparedness Center (ADPC).

1.2.5. The Asian Disaster Preparedness Center

The ADPC, based in Bangkok, is an autonomous intergovernmental organization with a vision to reduce disaster and climate risk impacts on communities and countries in Asia and the Pacific by working with governments, development partners, international organizations, NGOs, civil society, private sector, and other key stakeholders. Established in 1986, ADPC has grown and diversified its expertise across social and physical sciences to support sustainable solutions for risk reduction.

ADPC has conducted joint emergency response capacity building projects with many countries in South and East Asia which includes Emergency Operations Center (EOC) enhancement and operationalization projects in Ethiopia, Nepal, India, and others. They are currently guiding the "Asian Preparedness Partnership" (APP) program in six countries. The program seeks to improve preparedness and emergency response capabilities during disasters.

1.2.6. The Bangladesh Preparedness Partnership (BPP)

In October 2018, the APP program was expanded to include Bangladesh as the Bangladesh Preparedness Partnership (BPP); the BPP is based on the experiences, implementing concepts, and the APP's vision. It has established a collaborative partnership for the effective implementation of the SOD 2019, supporting the active participation of local actors at the national and sub-national levels in government-led disaster preparedness coordination.

The MoDMR is leading and guiding the BPP program, with technical assistance provided by ADPC and support from the Gates Foundation (BMGF). The first phase (BPP-1) covered the period from October 2018 to August 2023, with the second phase (BPP-2) running from September 2023 until October 2026.

THE FOUR KEY STRATEGIC THEMES OF THE BPP



DEVELOPING MULTI-STAKEHOLDER PARTNERSHIPS



STRENGTHENING EMERGENCY OPERATION CENTERS



CAPACITY DEVELOPMENT



SOUTH-SOUTH LEARNING AND KNOWLEDGE EXCHANGE WITHIN AND BEYOND BANGLADESH

The BPP employs a four-pronged strategy to support locally led actions. The program's strategy is designed around four key strategic themes. One of the strategies to support the enhancement of disaster management is the strengthening of national and subnational coordination systems through emergency coordination centers, by developing enhanced capacities, identifying vertical and horizontal linkages in coordination, by participation in simulation exercises, and by providing technical assistance. This report examines how the strengthening of the disaster management information center network can support this strategy.



CHAPTER TWO

Objectives of the DMIC Study

2.1 Background to the DMIC study

Under the leadership and guidance of the MoDMR, ADPC is co-implementing and facilitating BPP-2. This phase aims to strengthen multi-sectoral partnerships at national and subnational levels by building operational and technical capacities, research applications, and knowledge-sharing mechanisms.

Efficient national and subnational coordination systems are vital for the effective management of disasters. They are required for the coordination of preparations prior to and during such events, as well as for the response and recovery phases during and after them. Bangladesh has well-developed national, district, and local emergency response coordination systems. One of the aims of BPP-2 is to strengthen these national and subnational systems.

In 2009, the CDMP developed the DMIC concept at national, district, and upazila levels (see paragraph 1.2.3 above). The aim was to set up processes designed to acquire and share topical and timely information during routine and emergency periods, support DM activities, and assist in real-time emergency response. This initial concept was followed by GoB constructing 65 district DMIC hubs as information collection and transmission centers using the network of disaster management structures from the district, upazila, and union levels.

The DMIC concept aimed to collect data through its matrix of districts, upazilas, unions, and other stakeholders to support information management and coordination and dissemination of early warnings, situation reports, damage assessments and other disaster information through various pathways, including websites, cell broadcasting, SMS, and other tools. The aim was to enhance Bangladesh's disaster risk reduction, preparedness, response, and recovery efforts.

2.2 The Study of DMICs

The original concept for establishing DMICs was to improve the collection and transfer of disaster information. However, these centers are currently underutilized and not fully operational. The MoDMR has acknowledged this issue and has requested that the BPP-2 support the strengthening and operationalization of three DMICs. As a result of this request, ADPC is conducting a study to develop a technical proposal and pilot scheme aimed at improving the DMICs in three districts: Cox's Bazar, Kurigram, and Bagerhat. Upon completing the proof of concept, there are plans to expand the initiative nationwide.

The study will focus on identifying gaps and needs, as well as providing recommendations to create a comprehensive proposal that highlights the current strengths and scope of work necessary for enhancing the functioning of the three DMICs. After the report is finalized, the study team will collaborate closely with relevant stakeholders to develop and finalize the operational guidelines, standard operating procedures (SOPs), and other technical documents essential for the operationalization of the DMICs.

2.3 Anticipated Outcomes of the Study

The anticipated outcomes of the various stages of the study are:

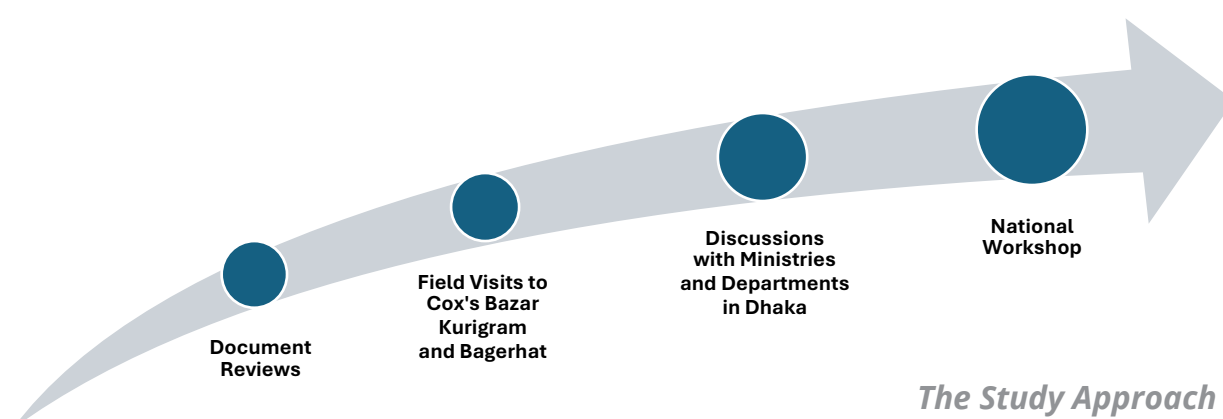
OUTCOMES	TIMEFRAME
An examination and understanding of the current DMIC structure and its processes using a document review and field visits to three districts.	Q4/2024
Sharing of initial findings through a National Validation Workshop, document feedback and national KIIs	Q4/2024
Drafting of the assessment report with minimum equipment recommendations on IT, HR and general equipment.	Q1/2025
Submission of the final report including revisions received from MoDMR and other stakeholders including recommendations for the provision of resources required to better operationalize the network.	Q2/2025
Gain the agreement of all parties GoB and ADPC to proceed with the suggested improvements to the network.	Q2/2025
Draft the Operational Strategy and SOPs for the DMIC network to be endorsed by GoB.	Q3/2025
Procurement and installation of IT and other general equipment in three pilot districts	Q3 & Q4/2025
Advise GoB on the training of sufficient staff necessary for operationalization of the network.	Q4/2025
Design a Simulation Exercise Plan and Package and then conduct simulation exercises and debrief sessions to further prepare and operationalize the network.	Q2/2026



CHAPTER THREE

Methodology

3.1 The Approach



The study's methodology involved collecting, examining, and assessing a combination of primary and secondary data from both documentary and verbal sources using qualitative research methods. This process included a review of relevant documents such as the proposal for this study and the proposal for the BPP Phase One project. Additionally, it encompassed various government policy documents, including the SOD and NPDM, as well as information regarding the structure and components of the disaster management system in Bangladesh. Other documents related to the status of the DMIC network were also considered. Field visits were conducted to the three selected districts of Cox's Bazar, Kurigram, and Bagerhat. These visits included observations and investigations at several government departments and facilities in Dhaka.

Key informant interviews (KIIs) were conducted in Dhaka, along with in-depth interviews and focus group discussions with key stakeholders and beneficiaries in three districts. A structured questionnaire was used, featuring a variety of questions. Additionally, group discussions took place with relevant stakeholders during a National Consultation Workshop in Dhaka, where the findings from the field trips were also discussed.

The assessment for the DMIC study was conducted from October 2024 to December 2024. The initial phase involved reviewing relevant documents, followed by in-country visits that took place from November 15th to December 5th. The team visited Cox's Bazar, Kurigram, and Bagerhat districts, as well as various National Ministries and Departments in Dhaka. These three districts were selected based on recommendations from the MoDMR, due to their high vulnerability to disasters, geographic diversity, and previous impacts from cyclones and floods. Other potential sites, such as Satkhira, Sunamganj, and Bandarban, were considered but not included due to resource limitations or security concerns.

The study used key informant interviews and focus group discussions with essential stakeholders at MoDMR, DDM, BMD, FFWC, CPP in Dhaka and with various stakeholders in the three visited districts. Upon returning to the capital, further visits and discussions took place with MoDMR and DDM. The ADPC team also conducted a National Consultation Workshop on DMICs. The DMIC Study Program Schedule along with additional details regarding organizations visited and individuals interviewed, is shown in Annexure A.

3.2 The Literature Review

The team conducted document reviews from 28th October until 15th November and from 16th November to 5th December during the field visit in Bangladesh. The review process continued throughout December as additional documents were suggested and provided. The documents reviewed are listed in Annexure B.

3.3 Interviews Conducted

Initial interviews were conducted with the members of the ADPC country team in Dhaka, followed by a series of individual key-informant interviews and focus group discussions held at National, District, Upazila, Union and Village levels in Cox's Bazar, Kurigram and Bagerhat districts. Later, discussions were held with key individuals from the MoDMR, DDM, and other organizations based in Dhaka. The field trips were conducted from 16th – 28th November. The ADPC country team selected the interviewees based on suggestions from MoDMR and DDM, ensuring that a reasonable cross-section of disaster risk management stakeholders was represented. 28 Individual KIIs were conducted, and some 71 officials participated in the four focus group discussions. Lists of all KII interviewees and FGD participants can be found in Annexures C and D.

3.4 Guided Interviews, Questions used and overall approach

Initially, a questionnaire was created consisting of 34 questions for National-level participants and 40 questions for Sub-National level participants, with the content of the questions pre-approved by ADPC Bangkok and the ADPC Bangladesh project team. As the process developed and more details emerged, it became clear that the initial questionnaires needed adjustment. Consequently, a final set was developed that included 22 questions for the National-level and 15 questions for the Sub-National level. The questions varied in focus depending on the groups and individuals involved. A copy of the questionnaires used can be found in Annexures E and F. The questions were designed to align with specific aims and objectives. These were:

Identification of the Hazards faced in the district
Knowledge of the DMIC Network
Knowledge of the District DMIC
Knowledge of the lines of communication used by the D-DMIC
Knowledge of DMIC Information flows
Knowledge of the current usefulness of the DMIC Network
Faults with the current D-DMIC
Suggestions for improvements

3.5. The National Consultation Workshop

A National Consultation Workshop, “Strengthening Disaster Management Information Centers,” was held at the Hotel Golden Tulip, Dhaka, on December 3rd, 2024. Forty-seven participants from various government ministries, departments, academia, and NGOs attended the workshop. Details of the participants are contained in Annexure G.

The consultation included presentations from the MoDMR and DDM, outlining expectations, linkage with the concept of EOCs, and a plan of action for the next two years to support DMIC and EOC as part of institutional support. ADPC outlined the overall idea of DMICs and shared the field study findings from the three districts. The participants then separated into groups to discuss and report on four general themes. These were:

- Concept Outline of the DMIC Network.
- Equipping a DMIC network with hardware, software, and HR support.
- Identifying the network information requirements and
- Information flow and the sustainability of an enhanced DMIC network.

The discussions resulted in a better understanding of DMICs and additional information from key stakeholders, enabling the study team to propose suitable recommendations and prepare a proposal identifying the scope of work required for further strengthening the DMIC network. The consultation workshop program is shown in Annexure H.

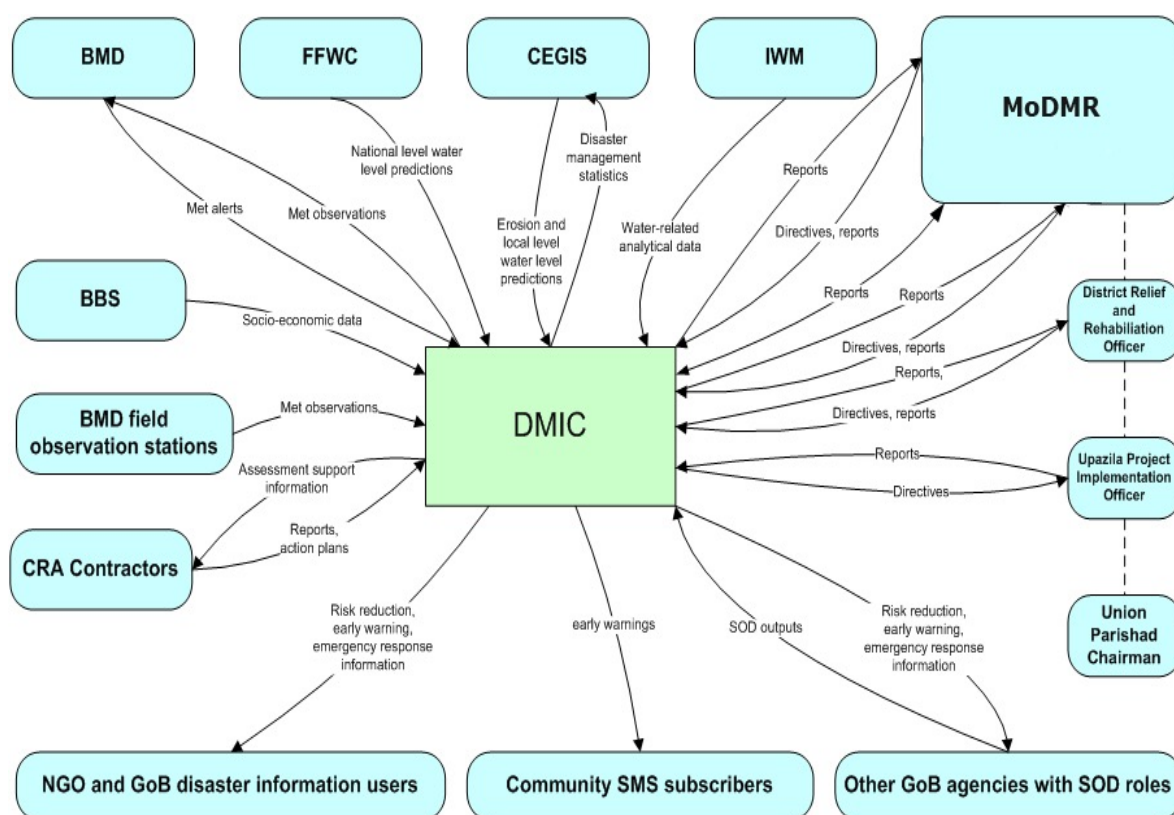


CHAPTER FOUR

Study Findings

The ADPC study aimed to analyse the DMIC network in three selected districts and to create a proof of concept to enhance their operations.

A DMIC is a centralised facility that gathers, analyses, and disseminates information related to emergencies and disasters, enabling effective coordination and response efforts. International and regional practices typically incorporate these functions within an EOC, ECC, or similar facility. An internet search for DMICs reveals only one known example, the DMIC in Bangladesh. However, the establishment of a coordination facility is essential for effective disaster management, regardless of its name or acronym.



The anticipated DMIC Network

In 2009, the CDMP project developed the DMIC concept, where facilities would be established in districts and upazilas to create a network to enhance disaster risk reduction, preparedness, response, and recovery capabilities. The anticipated network was extensive. However, the network is not being fully utilised. At the request of the MoDMR, this study aims to examine the operational capabilities of three DMICs and to develop a proof of concept for further expansion and improvement. The diagram on the left outlines the originally proposed process of a large-scale DMIC network as envisaged by CDMP.

The study will examine current DMIC operations and articulate any gaps and needs to prepare a comprehensive proposal identifying the scope of work for the functioning and further strengthening of the DMIC network. The MoDMR and DDM will then work closely with the relevant stakeholders to develop and finalise the operational guidelines, SOPs, and other relevant technical reports to better operationalize the DMICs. The anticipated outcomes of the various stages of this study are shown in paragraph 2.3 above.

4.1 The Literature Review

The review of relevant documents revealed that Bangladesh has an extensive disaster management structure and regulations. These include National Policy documents such as the Disaster Management Act 2012, the National Disaster Management Policy 2015, the Standing Orders on Disaster 2019 and the National Plan for Disaster Management 2021-2025.

The SOD clearly and succinctly outlines the functions and responsibilities of all ministries, divisions, departments, agencies and disaster management committees for DRM. Its objective is to inform all concerned about their specific duties at every stage of the DRM process. The GoB has also created an extensive network of disaster management committees at the national, district, division, upazila, pourashava (municipality), union and ward levels. There are no specific provisions in the various policy documents for the DMIC network. However, on a few occasions, the SOD mentions DMICs, but only as aside mentions for some departments.

In addition to these policy documents and government structures, Bangladesh has developed an extensive voluntary network with organizations such as CPP, Flood Volunteers, BDRCS, Bangladesh Scouts and others.

One of the main elements examined during the literature review was the DMIC concept created throughout Bangladesh. The origin of this concept is unclear, and the original justifications or administration policy support are unavailable. The idea originated from the UN's Comprehensive Disaster Management Programme (CDMP), which operated from 2004 to 2014. Beginning in 2006, the CDMP organised disaster information coordination facilities at district and upazila levels, equipping them with modern ICT equipment, while a separate World Bank project provided desks, chairs, TVs and whiteboards. Later, the government constructed 65 multi-storied buildings as DMIC hubs at the district level to enable the collection of data through its network using DRM structures from the district, upazila and union levels. There is very little documentation about the project and no confirmed details of the items of equipment provided. However, as mentioned in KII interviews with the DRROs and PIOs, one of the main weaknesses of the concept was that the project did not provide any personnel to operate the network or operational funding.

On several occasions the SOD mentions DMICs, but all entries are minor inclusions in lists of organizational responsibilities. There is no separate section that outlines the importance of or the roles and responsibilities of a DMIC.

4.2 District Visits

In November 2024, the ADPC study team visited Cox's Bazar, Kurigram, and Bagerhat and held discussions with senior officials, the various DRROs, PIOs, and members of the DDMCs. The team also visited the three DMICs, three Upazilas, and three Unions and their Data Centers. The organisations visited, and individuals involved in the KIIs and FGDs are listed in Annexures A, C, and D.

4.2.1 Cox's Bazar

Cox's Bazar, situated in the southeast of the country, bordering the Bay of Bengal. It is exposed to numerous natural hazards and extreme weather impacts, including cyclones, torrential rains, flash floods, storm surges, and extreme temperatures (UNDP Bangladesh).

The ADPC team and a senior representative from MoDMR visited Cox's Bazar District from November 16th to 19th. The district contains 9 Upazilas, 71 Unions, and 4 Municipalities with a population of about 2.9 million (Population Census 2022). The team visited three locations: the district headquarters, Ukhiya Upazila, and Rajapolong Union and conducted discussions with District Administration Officers, members of the DDMC, the DRRO, the PIO, the Union Chairman, and other key officials.

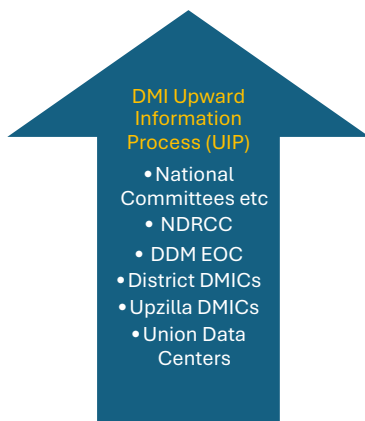


DMIC COX's Bazar



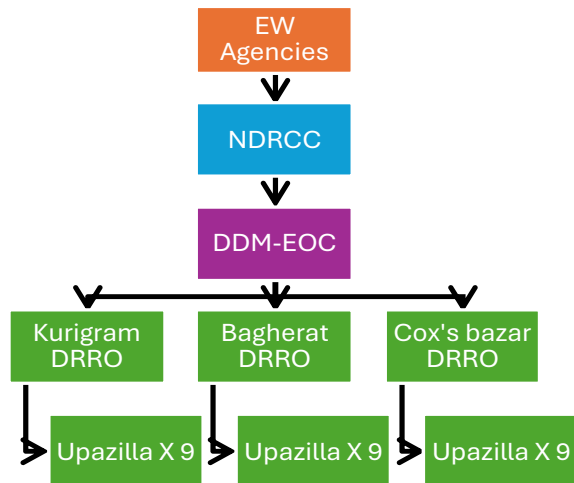
Interior of Cox's Bazar DMIC

During the visit to the DMIC in Cox's Bazar, the building was nearing completion. It consists of four floors: two designated for district disaster management storage, one for emergency accommodation, and one for the DMIC. The DMIC floor features an open-plan design, which is ideal for a DMIC or ECC. However, during the visit, the DMIC was just a shell; it had no equipment or furnishings and was unoccupied. The DRRO plans to move into the space when it becomes ready for occupancy. This move aligns with the practice at the two other DMICs, where the DRRO and other district sections have already occupied the office spaces.



The expected upward information process for the DMI network is shown on the left. Discussions with the DRRO and PIO revealed that the modified process developed because the DMICs did not have suitable equipment or staffing. The various individuals interviewed, knew little about the CDMP project and the DMIC equipment supplied to all districts and upazilas.

The district and upazila DMICs are not operating in their intended role. Instead, the DRRO and PIO are carrying out this function. The various records either received or transmitted are retained on the officer's personal work computers.



DMIC Downward Information Process

The downward information flow mainly consists of weather bulletins and warnings passed from the EW agencies (BMD, FFWC, and BSPARSO) or requests for information coming from NDRCC. In addition, the EW agencies use several methods to directly pass warnings to all levels.

DRRO, and PIOs have extensive duties to perform during disasters and the lack of support that would be provided by a DMIC reduces their effectiveness during disaster operations. The availability of a fully functional DMIC would alleviate this weakness.

4.2.2 Kurigram



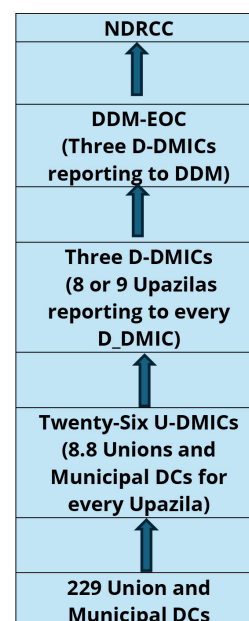
Kurigram District DMIC Building

Kurigram, in the northern region of Bangladesh, suffers from annual river and flash flooding, river erosion, and drought. The ADPC team and a senior representative from DDM visited the district from November 20th to 22nd. The district contains nine upazilas, 73 Unions, and three Municipalities, with a population of over 2.38 million (Population Census 2022). The study team visited three locations: the district headquarters, Kurigram Sadar Upazila, and Vhogdanga Kurigram Sadar Union and conducted discussions with District Administration Officers, members of the DDMC, the DRRO, the PIO, the Union Chairman, and other key officials.

The District DMIC in Kurigram has a standard three-level design, with the ground floor for DM storage, the top floor for emergency accommodation, and the middle floor for the DMIC. Unlike the open plan of Coxs Bazar, the floor design includes multiple office spaces. The DRRO and staff have occupied some offices on the DMIC level, but they are not using the remainder as a DMIC. There is no I.T. or other technical equipment in the office spaces, and most office furniture belongs to other units.

The district and upazila DMICs are not functioning in their intended role. Instead, the District DRRO and the Upazila PIO carry out this function. The downward transmission of warnings and instructions and upward movement of sitreps, SOS-Forms, D-Forms, and other necessary information works with few complaints from interviewees. However, the lack of support an operational DMIC or ECC would provide means the system is under immense strain when operating in disaster 24/7 mode.

The table on the right outlines the input workload for a limited three-facility DMIC network. Roughly nine unions and municipalities report to every upazila, and eight or nine upazilas report to every district, with the three districts reporting to the DDM. As mentioned already, DRROs and PIOs have multiple duties to perform during disasters. 24/7 operations over prolonged periods are not sustainable when individuals are responsible for the network as opposed to fully equipped and operational DMICs.



4.2.3 Bagerhat



Bagerhat District DMIC Building

Bagerhat, in the southwest region of Bangladesh, suffers climate-related risks, including cyclones, floods, sea-level rise and coastal erosion. The ADPC team and a senior representative from DDM visited the district from November 25th to 28th. The district contains nine upazilas, 75 Unions, and three Municipalities, with a population of 1.61 million (Population Census 2022). The study team visited three locations: the district headquarters, Sarankhula Upazila, and South Kali Union and conducted discussions with District Administration Officers, members of the DDMC, the DRRO, the PIO, the Union Chairman and other key officials.

The District DMIC in Bagerhat has the standard three-level design, with the ground floor for DM storage, the top floor for emergency accommodation, and the middle floor for the DMIC. The DMIC floor plan includes multiple offices, unlike the open plan design of Cox's Bazar. The DRRO and staff have occupied some offices on the DMIC level, but they are not using the remainder as a DMIC. No I.T. or other technical equipment is available in the office spaces, and some office furniture belonging to different units is present. Again, the district and upazila DMICs are not functioning in their expected role. Instead, the District DRRO and the Upazila PIO carry out this function.



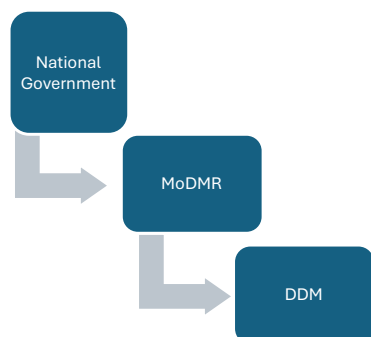
All interviewees are satisfied with the downward transmission of warnings and instructions, most of which are weather warnings and updates from the EW agencies. In addition to the DMIC network information flow process, the EW agencies communicate with all levels using various mobile phone networks and social media methods. Organizations such as CPP and BDRCS supplement these by separately informing their volunteer networks.

The movement of documents and information such as sitreps, SOS forms, and D forms from grassroots to national levels reportedly works. Still, interviewees noted a critical weakness due to reliance on individual officers (DRROs and PIOs) needs to be addressed.

4.2.4 National KIIs

The study team discussed the DMIC enhancement project and the current organization of disaster Management information processing with several senior officials from MoDMR, DDM, BMD, BWDB-FFWC, and CPP and later visited the National Disaster Response Coordination Center (NDRCC) situated at offices of the MoDMR and the Department of Disaster Management's Emergency Operations Center (EOC).

Senior officials at MoDMR and DDM are aware that the DMIC network is not operating at optimum levels, and all we spoke to were supportive of any improvements this project could suggest.



"The Ministry of Disaster Management and Relief is the focal point of all government DRM activities. This ministry will be responsible for all disaster risk management activities overall. The ministry will help the NDMC and IMDMCC by providing information and making decisions. The ministry will coordinate and assist in all programs of agencies/organizations involved in disaster risk reduction and response directly and indirectly" (Source: SOD 2019)

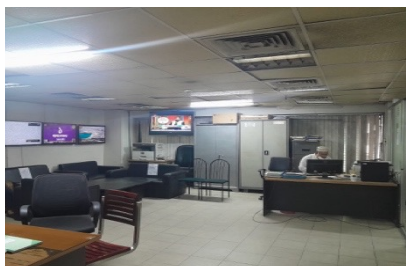
"The DDM serves the MoDMR to implement the objectives of the DM Act 2012 by undertaking risk reduction activities, responding to disaster events efficiently as well as strengthening programs undertaken by different stakeholders related to DRR and DRM" (Source: Bangladesh National Portal DDM)

In essence, MoDMR is the DRM policy arm, interpreting directions from the GoB and creating DRM policies while the DDM is the executive/operational arm responsible for carrying out the policies.

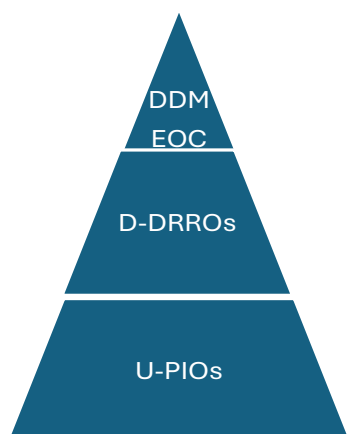


NDRCC at MoDMR

Unlike the three district DMICs we visited, MoDMR and the DDM have operational and well-equipped coordination centers. The MoDMR NDRCC is within the ministry building and has reasonable working space, facilities, and equipment. The GoB is in the early stages of planning for a new National EOC, and the current thinking is that MoDMR will operate this center and, when operational, will replace the NDRCC. If this is the case, there is no reason for the NDRCC not to be



NDRCC at MoDMR



renamed as the N-EOC sooner rather than later so that systems and processes will be better prepared for the operation of the new facility.

The DDM's facility, known as the DDM EOC, is located within the department building. It is a small space with limited equipment. The building suffered damage during the civil unrest and turmoil of 2024 and is currently undergoing repairs. The DMIC is currently not operational, but there is a reasonable amount of available space on the third floor, along with access to a computer server. Discussions with senior officials have indicated that the DDM should host the N-DMIC. This view was confirmed by participants during the National Consultation Workshop mentioned below. The N-DMIC needs to be fully equipped, and once it is operational, the EOC should be closed and integrated into the new facility.

The senior officials interviewed believe that the DMIC process as indicated, is functioning in its current form, with PIOs and DRROs taking the place of the DMI Centers. However, they also acknowledge the need to upgrade the DMIC facilities with better equipment and manpower to ensure the process operates at full capacity.

The weaknesses in the current process are seen to be:

- Lack of suitable equipment
- Lack of trained DM staff and
- The reliance on DRROs and PIOs

4.2.5 National Consultation Workshop

The National Consultation was held in Dhaka on the 3rd of December 2024 with participants from various ministries, departments, academia, and NGOs. The consultation included presentations from the MoDMR and DDM, outlining expectations, linkage with the concept of EOCs, and a plan of action for the next 2 years to support DMIC and EOC as part of institutional support. And from ADPC outlining the overall concept of DMICs and sharing the field study findings. The participants then discussed, deliberated, and reported on some general themes. The overarching objective of the discussions was to understand DMICs better and add additional information from key stakeholders to enable the study team to propose suitable recommendations for further strengthening the DMIC network. The concept questions posed to the various groups and their answers/solutions are:

1. The Conceptual Outline of the DMIC Network.

Q1	As DDM is expected to take responsibility for the N-DMIC, how will the N-DMIC connect with MoDMR-NDRCC and later the NEOC? and Should the N-DMIC be co-located with the planned N-EOC when it becomes operational, or should it remain separate?
A	DMIC should remain at National and District Levels. Upazila DMCs should be created later. NEOC should be a separate agency under MoDMR.

Q2	What should be the hours of operation of the N-DMIC and D-DMICs during the three disaster phases, before, during and after? And if operating on a 24/7 basis over an extended period, how many shifts should be used?
A	24/7 for N-DMIC and D-DMIC, with four 6 hourly shifts.
Q3	How will the D-DMIC connect with U-DMICs, Union Digital Centers (UDCs) and Municipality One Stop Service Centers?
A	The usual format of MoDMR to DDM to D-DMIC to U-DMIC to UDCs.
Q4	What types of roles and functions should be adopted by a DMIC? In addition to gathering and disseminating information what other roles would be useful for a D-DMIC and N-DMIC to perform
A	Training for capacity enhancement. Running Simulation drills. Knowledge sharing. Running DM seminars and workshops. Working as a disaster network hub and assisting local DM committees.

2. Equipping a DMIC network its hardware, software and HR support.

Q1 AND Q2	What basic level equipment should be supplied to a DMIC? and What IT equipment should be supplied to a DMIC?
A	Standard Office equipment, Generator. Solar Power, UPS, Microphones, Conference facilities, Satellite Phones, VHF and UHF radios, Computer printer, Scanner and fax, Data Imaging, Cameras, Drones, Specialized GIS and Remote sensing
Q3	What information storage systems should be utilized?
A	Local caching server/computer with a paper-based fall-back mechanism
Q4	Should a N-DMIC host a dashboard or similar service
A	Yes
Q5	What level of human resources should be allocated to a N-DMIC and to D-DMICs?
A	Dedicated and skilled personnel with a minimum of service in DM of 5 years with IT, communication, data skills.

3. Identifying the network information requirements. and

Q1	What departments, organizations and other stakeholders should feed information into the N-DMIC?
A	From existing bodies, strengthening trans boundary data sharing and the inclusion of other stakeholders
Q2	What departments, organizations and other stakeholders should the N-DMIC feed information back to?
A	All organizations involved in or interested in disaster management and response

Q3	What type of information should be collected/shared?
A	Needs based, authenticated and coordinated information. Resource allocations. Warning Information
Q4	How should this information be transmitted and collected?
A	Mobile Apps, Auto-Generated phone calls and SMS, DMCs and Union DCs, locally through PA systems and day to day communication networks
Q5	Which grassroots stakeholders should feed information into a District DMIC?
A	Trained Civil Defence Personnel, Local Volunteers, Farmers, All professionals and other local NGOs and organizations.

4. The sustainability of an enhanced DMIC network.

Q1	Develop a plan of action (Key Interventions, expected outcomes and the timeline) for Implementation of an enhanced DMIC Network at National level, District level and possibly Upazila level with Linkages both vertically and horizontally.
A	1. Empowering Sectoral partners in data sourcing and decision making. Outcome, Authenticated Data Timeline Mid-term 2. Capacity Building of data sourcing personnel, DMCs, sectoral departments etc. Outcome, establishment of a sustainable data collection process Timeline Short-term. 3. Functional union digital canters as community information hubs Outcome, Realtime data sourcing and dissemination Timeline Mid-term. 4. Alignment of MoDMR and BMD, Outcome, Access to all relevant data for quick decision-making Timeline Long-term
Q2	Identify and discuss the roadblocks and suggested solutions to the sustainability and future development of the DMIC Network.
A Roadblocks	Challenges of Data collection and sharing. Limited Interdepartmental Cooperation. Technological Constraints. Limited Funds. Deficit of Human Resources. Lack of public awareness and engagement. Coordination Gaps and Sustainability Issues
A Solutions	Enhanced data management. Technology Integration. Secured and Diversified Funding. Capacity Building. Public awareness. Improved Coordination Mechanisms. Focus on Sustainability and Community Engagement.



CHAPTER FIVE

Observations and Conclusions

The study confirmed that Bangladesh has a comprehensive disaster management structure, which includes several detailed national policy documents, plans, and processes, as well as an extensive network of Disaster Risk Management (DRM) Committees at all levels, from national down to the union level. The SOD 2019 clearly outlines the functions and responsibilities related to DRM for all ministries, divisions, departments, and agencies, aiming to inform all stakeholders of their specific duties at every stage of the disaster management process.

In addition to these policy documents and government structures at sub-national levels, the country boasts a well-established network of volunteers.

Information is crucial for effective disaster management and is needed at all stages of the disaster management cycle. The DMIC network was created for efficient collection, collation, storage, and sharing of information. The study found that while the framework for this network is in place, the processes have largely fallen to individuals, such as district DRROs and Upazila PIOs. Consequently, the physical facilities designed for these purposes are not being utilized as intended.

The GoB policy regarding the creation of the DMIC network is not available. In the three districts visited, the equipment provided in 2009 by the CDMP project to all districts and upazilas to set-up the DMIC network has been lost or has become obsolete. The various items of information passed down and passed up the DMIC network is retained on the work computers of the DRROs and PIOs. The information is not held on a centralized data collection device where it could be accessed by other stakeholders.

5.1 Operationalizing the three DMICs

My experience in disaster and emergency management across the Asia/Pacific region—specifically in establishing Emergency Command Centers (ECCs) and Emergency Operations Centers (EOCs), conducting emergency management training, assessing and evaluating ECC/EOC enhancement projects, and creating and delivering national-level simulation exercises has highlighted several fundamental requirements for effectively operationalizing ECC/EOC networks. This also applies to the Disaster Management Information Center (DMIC) network in Bangladesh. These requirements include:

a. The recognition of the need for and the corporate will to create a DMIC Network.

- There is a critical need for acceptance at the highest levels of government regarding the creation of this network, along with a willingness to make it a reality. This is particularly important because the CDMP project was unable to be sustained.
- An appropriately selected and passionate organization or individual must advocate for the recognition and resources necessary for the success of the network.

- Updates to the Standing Orders on Disasters (SOD) and the National Plan for Disaster Management (NPDM) should clearly outline the Disaster Management Information and Communication (DMIC) network, detailing its duties and processes.
- The National DMIC should be established within the DDM and should be activated and operationalized to effectively drive the network.
- Consideration should also be given to extending the network down to Upazila DMICs and Union Data Centers (UDCs) to create a more comprehensive network structure.

b. The creation and availability of facilities and basic equipment.

- The space for the N-DMIC is available at the DDM building, but it is not equipped or ready to operate. It requires equipment, staffing, and operational setup.
- The DMIC buildings are available, but the DMIC floors are currently non-operational, lacking both IT equipment and furnishings. BPP-2 should provide the necessary basic equipment, and the DMIC spaces in the three buildings need to be restored for full DMIC use.

c. The supply and availability of IT equipment and appropriate data storage.

- Aside from a computer server at the N-DMIC, there is currently no IT equipment available at the district DMICs. The ADPC needs to ensure that sufficient IT equipment is provided to make the district DMICs operational.
- The DDM should be responsible for transferring sufficient basic office and IT equipment to ensure that the N-DMIC can function properly.
- Annexure J includes a list of the minimal basic office and IT equipment required to equip all three district DMICs. Additionally, provisions for the ongoing maintenance of this equipment should be included in any plans for network creation or enhancement.

d. The provision and retention of sufficient experienced personnel.

- Consideration should be given to establishing and training a team of disaster management specialists within the overall Disaster Management (DDM) structure at both the national and district levels, with plans for eventual expansion to upazila and ward levels.
- A cost-effective operational model observed throughout the Asia Pacific region involves centers (such as ECCs, EOCs or DMICs etc.) having a small core of professional full-time staff. This core team can then be supplemented by additional staff during periods of heightened operational need.
- The National and District Disaster Management Information Centers (DMICs) must be staffed by experienced and adequately trained personnel. This will require the organization to provide training for selected individuals. The national consultation conducted during this study indicated that, in addition to basic DMIC training, personnel should serve in their positions for a sufficient period to enhance their overall effectiveness.

- The DRRO, who will ultimately be responsible for the D-DMIC, should oversee the training process. However, field visits have shown that the DRRO has numerous important duties during disasters, including collaboration with senior management, disaster management committees, upazilas, and wards.
- Although the DRRO is responsible for the D-DMIC, it is advisable to appoint another officer as the D-DMIC manager or Officer in Charge .
- Experience has demonstrated that a lack of sufficient human resources can lead to program failure. The re-established network requires dedicated personnel. Initially, if feasible, the BPP-2 may provide these resources. However, it is crucial that this provision be sustainable and eventually taken over by the Government of Bangladesh (GoB).

e. The Knowledge of Network Client Requirements.

- The DMIC must customize its services to meet the needs of stakeholders at all levels. National agencies depend on it for real-time data and policy planning, while district and upazila authorities require timely updates to coordinate their response efforts. Communities should have access to alerts through SMS, radio, and local networks, and the private sector relies on risk assessments to safeguard their assets.
- For the DMIC to operate effectively, it needs trained personnel, modern technology, and ongoing engagement with stakeholders. This ensures a responsive and demand-driven disaster management system. DMIC staff at all levels must possess a comprehensive understanding of the needs and requirements of their respective clients.

f. The design and creation of systems and processes for capturing, sharing and storing information.

- The disaster management information network needs software tools that can efficiently collect, collate, and analyse data.
- To facilitate operationalization, data storage facilities are necessary at all network levels. While the N-DMIC already has a server, the D-DMICs require an appropriate storage system for collecting and storing their data. This should be included in the BPP-2.
- Additionally, it's important to consider implementing Smart Data and Digitalization for DMICs to address the current gaps in automation for disaster data collection, analysis, and dissemination.

g. Basic training in equipment usage and ongoing training including simulation exercising.

- All officers assigned to or employed by the network must undergo individual basic training. This training should also encompass specialist equipment training, ongoing training, and simulation training to ensure that DMIC staff capabilities are continuously improved and developed.

h. The provision of a maintenance Budget.

- One of the issues identified in the CDMP project was the lack of a budget allocated for the districts and upazilas that received the original equipment. As a result, computers were not properly maintained, consumable supplies for printers were not provided, and fuel for petrol-driven items, such as generators, was not budgeted. BPP-2 needs to ensure that an initial maintenance budget is established and that arrangements are made for the Government of Bangladesh (GoB) to take up this responsibility.

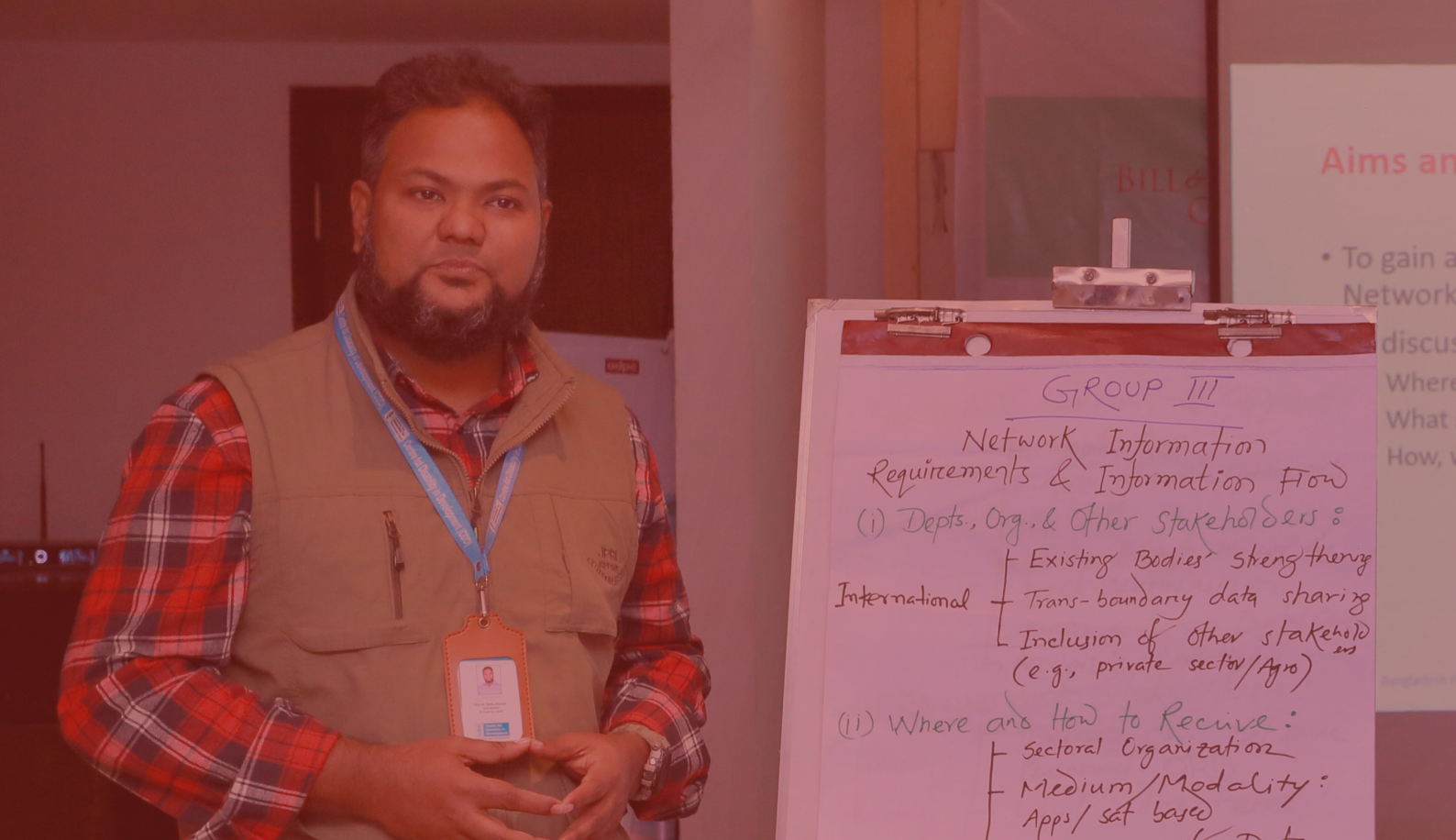
The study concluded that while a framework for a DMIC network is in place, the operational processes have become reliant on individuals such as the district DRROs and the Upazila PIOs. These officers are currently using their personal office computers to transmit messages throughout the information transfer chain. This situation is unsatisfactory and unsustainable, especially during major disasters when operational duties can extend over a 24-hour period for days or even weeks. Addressing this issue is relatively straightforward; it involves recognizing the need for support and enabling the DMICs to take on the responsibility effectively.

5.2 Center Nomenclature

The term “DMIC” was established by the UN CDPM project around 2004. In 2018, the Government of Bangladesh (GoB) began constructing 65 DMIC buildings. This concept is not utilized in other countries in the region. Typically, various levels of coordination or operations centers focus on creating a disaster management information network to facilitate effective collection, collation, storage, and sharing of information.

The use of DRROs and PIOs in disaster management roles can be confusing. This issue was discussed with senior officials at MoDMR and DDM. It has been suggested that DRROs be renamed District Disaster Management Officers (D-DMOs) and PIOs Upazila Disaster Management Officers (U-DMOs). This suggested change aims to streamline the system and enhance clarity regarding disaster management roles.

The term “Disaster Management Information Center” (DMIC) does not accurately capture the expected role of such a facility in managing the preparedness, response, and recovery phases of a disaster. A more appropriate name would be “Disaster Management Coordination Center” (DMCC) or “Emergency Management Coordination Center” (EMCC). As the title DMIC is primarily used in Bangladesh and considering the planned creation of the National Emergency Operations Center (N-EOC), it would be timely to consider renaming the DMICs.



- GROUP III
- Network Information Requirements & Information Flow
- (i) Depts., Org.. & Other Stakeholders :
- Existing Bodies strengthening
 - Trans-boundary data sharing
 - Inclusion of other stakeholders (e.g., private sector/Agro)
- (ii) Where and How to Receive :
- Sectoral Organization
 - Medium/Modality : Apps/ sat based

CHAPTER SIX

Recommendations

To enhance the operational effectiveness of the DMIC network, as outlined in paragraph 5.1 above, the following recommendations are provided, along with suggested timeframes for their implementation. The timeframes are categorized as follows: short-term (0-12 months), medium-term (1-2 years), and long-term (2-5 years). The recommendations are as follows:

6.1 The recognition of the need for and the will to create a DMI Network.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R1	That the GoB should establish a legal framework for DMICs and include this in any updated Disaster Management Act, or National Policy on Disaster Management (NPDM).	1-2 YEARS
R2	That a DMIC Policy and Operational Framework under DDM be drafted and agreed which clearly defines the roles, responsibilities, and governance of the centers.	0-12 MONTHS
R3	That DMICs are fully integrated into the SOD, making their operation a mandatory function in national and subnational disaster management processes.	1-2 YEARS
R4	That stakeholder consultations are conducted with (MoDMR, DDM, LGD, ICT Ministry etc) and the proposed legal framework submitted to the National Disaster Management Council for endorsement.	1-2 YEARS
R5	That a DMIC Finance Committee is formed under MoDMR to develop funding strategies and negotiate private sector partnerships for infrastructure and technology support	1-2 years
R6	To develop a National DMIC Capacity-Building Program. to address the Lack of trained personnel at national and district DMICs.	1-2 years
R7	To establish a DMIC Training Academy in partnership with universities, ICT sector, and regional partners (e.g., ADPC, UNDRR). Developing a DMIC certification program (basic, intermediate, advanced) for government officials, emergency responders, and community stakeholders. Include technical training on GIS, real-time data collection, and AI-driven disaster forecasting.	2-5 years
R8	To identify suitable institutions for collaboration (e.g., BRAC University, Dhaka University) and secure funding from donors for training modules.	0-12 months
R9	To strengthen Public-Private Partnerships (PPPs) for DMICs to address over-reliance on government funding for DMIC operations. Establish PPP models where private tech firms (Grameenphone, Robi, Huawei, Google Crisis Response Team etc) provide IT infrastructure, cloud services, and AI analytics	1-2 years
R10	To further collaborate with mobile network operators (MNOs) to establish SMS-based disaster alerts. Sign MoUs with private telecom providers for emergency alert integration. Develop a PPP model with IT companies for cloud-based DMIC operations	1-2 years

R11	To establish and set up a DMIC Sustainability Fund to address the absence of a dedicated budget for maintenance and operational sustainability. Managed by DDM and/or MoDMR, with contributions from: National budget allocations. Private sector (CSR from telecom companies, banks). International partners (World Bank, ADB, UNDRR). Introduce a “Disaster Data Usage Fee” for research institutions and insurance companies accessing DMIC data.	1-2 years
R12	To provide basic IT and general office equipment to better operationalize the three district DMICs, they will also need to be provided with sufficient operational manpower. ADPC and GoB need to come to an agreement for the sustainability of any initial resources provided. If this is not available, the initial project provision will inevitably fail.	0-6 months
R13	There is a degree of overlap between the roles and responsibilities of MoDMR and DDM for disaster management. It is recommended that the responsibility for the DMIC Network should be allocated to the DDM as the DDM is the operational arm of the MoDMR. The DDM should host and be responsible for the National DMIC.	0-6 months
R14	To navigate the complexities of varying government ministries and differing organizations, a well-qualified, passionate individual should be selected to head and advocate for the DMIC network.	1-2 years
R15	To simplify the network, consideration should be given to changing the titles of DRRO and PIO to District Disaster Management Officer (DDMO) and Upazila Disaster Management Officer (UDMO).	0-6 months

6.2 The creation and availability of facilities and basic equipment.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R16	The DDM should arrange for the provision of sufficient office and IT equipment for the N-DMIC from their own departmental resources.	0-6 MONTHS
R17	The BPP-2 project should provide equipment for the three DMICs as per the suggested provisions in Annexure J. On the understanding that the responsibility for the care of the equipment will rest with DDM.	0-6 MONTHS

6.3 The supply and availability of IT equipment and appropriate data storage.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R18	The DDM should arrange for the provision of sufficient IT equipment and appropriate data storage facilities for the N-DMIC from their own departmental resources.	0-6 MONTHS
R19	The BPP-2 project should provide IT equipment and appropriate data storage as per the provisions at Annexure J. On the understanding that the responsibility for the care of the equipment will rest with DDM. The provision should include data backup facilities and fallback procedures to other centers in the event of the loss of a facility.	0-6 MONTHS

6.4 The provision and retention of sufficient experienced personnel.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R20	The GoB will need to commit to the ongoing provision of manpower and equipment to fully operationalize the network. On the understanding that the responsibility for the care of the equipment will rest with DDM.	0-6 MONTHS
R21	The DDM should provide sufficient experienced manpower for the N-DMIC from their own departmental resources	0-6 MONTHS
R22	Initially, the BPP-2 project may provide at least one person per District DMIC as per Annexure J.	0-6 MONTHS

6.5 The knowledge of network client requirements.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R23	The district structure of DRRO (DDMO), PIO (UDMO and DMIC staff must be trained and made aware of their various client requirements both up and down their lines of communication.	1-2 YEARS
R24	For the system to be fully operationalized it must be expanded and properly equipped to Upazila DMICs in the first instance and later to Union Data Centers.	2-5 YEARS

6.6 The design and creation of systems and processes for capturing, sharing and storing information.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R25	There need to be effective and sufficient data processing systems and processes for capturing, sharing and storing information at national and district levels.	1-2 years
R26	There is a requirement to introduce Smart Data and Digitalization for DMICs to address lack of automation in disaster data collection, analysis, and dissemination.	1-2 years
R27	There is a need to develop an AI-based Early Warning System (EWS) integrated with the DMIC network for real-time hazard monitoring.	1-2 years
R28	A National Disaster Management Digital Dashboard needs to be created with centralized data on floods, cyclones, earthquakes, fires, and health emergencies. Utilizing satellite imagery, drones, and IoT sensors for real-time data collection	1-2 years
R29	There needs to be better collaboration and integration with the Bangladesh Meteorological Department (BMD), the Flood Forecasting and Warning Center (FFWC), and UNDP's digital disaster resilience programs. These dashboards should be pilot tested in three districts before a national rollout.	1-2 YEARS

6.7 Basic training in equipment usage and ongoing training including simulation exercising.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R30	There needs to be a training package designed from basic level through refresher level so that personnel engaged in DMIC duties are properly equipped. Training at district level should be the responsibility of the DRRO (DDMO) or the OiC DMIC. (Suggested timeframe) The creation of a DMIC training academy and courses is mentioned at R6 and R7 above.	1-2 YEARS
R31	Once the DMIC process is better operationalized a simulation training package should be designed and simulation exercises held at regular intervals. The conduct of regular DMIC simulation exercises will address the lack of testing and refinement of DMIC systems. Bi-annual DMIC simulation drills, integrating flood forecasting, cyclone warnings, and earthquake response scenarios. Will test knowledge and awareness of SOPs and provide experiences in crisis communication and decision-making. (Suggested timeframe)	1-2 YEARS AND 2-5 YEARS

6.8 The provision of a Maintenance Budget.

NO	RECOMMENDATION	SUGGESTED TIMELINE
R32	Initially, a small maintenance budget may be provided by BPP-2, but arrangements need to be put in place for this responsibility to be taken over by GoB. Other recommendations on DMIC financing are mentioned at R5 R8 and R9 above.	0-6 MONTHS



ANNEX

ANNEXURE A

DMIC Study Program Schedule from 15th November until 05th December 2024

DATE	DAY	TIME	PROGRAM	VENUE/LOCATION
15/11	Fri	22:40	Arrival	
16/11	Sat	1st Half	Meeting with BPP team	ADPC Dhaka office
		2nd Half	Travelling to Cox's Bazar from Dhaka	
17/11	Sun	1st Half	Discussion with DRRO Office and Visiting DMIC	DRRO Office- Cox's bazar
17/11	Sun	2nd Half	Consultation with DDMC- Cox's Bazar members including DC, ADCs, DDLG, DRRO, Fire Service, CPP, BMD, DAE, Administrator & Secretary of Cox's Bazar Municipality, DCCI, Academia, Local NGO, CS Office, etc. (15-20)	DC Office Hall Room- Cox's Bazar
18/11	Mon	Full Day	Field Visit: Ukhiya and Teknaf for learning of EOC DMIC & UDC (Union)	Ukhiya & Teknaf Upazila EOC and 01 Union of Ukhiya or Teknaf
19/11	Tues	1st Half	Discussion with DC, ADC, DDLG, DRRO and District Administration for more information	DC Office - Cox's Bazar
		2nd Half	Travelling from Cox's Bazar to Dhaka to Cox's Bazar	
20/11	Wed	Morning	Travel from Dhaka to Kurigram	
		12:30-2:30pm	Meeting with DRRO: Mr. Abdul hay Sarker	DRRO Office
		2:30-3:30pm	Meeting with DC- Kurigram (Nusrat Jahan) and ADC General (Mr. Uttom Kumar Roy)	DC Office

		4:00-5:00pm	Meeting with the Department of Culture Extension (DAE) Officer (Mr. Abdullah Al Mamun)	DAE Office
		5:30-6:30pm	Meeting with Deputy Assistant Director (DAD) of FSCD (Mr. Kabir Hossain)	FSCD Office
		7:00-8:00pm	Meeting with Water Development Board (Executive Engineer- Mr. Rakibul Hasan)	WDB Office
21/11	Thur	10:00-1:00pm	Visiting Union and Upazila	Sadar Upazila and Union
		2:30-4:00pm	Meeting with BDRCS Officials	BDRCS Office
		4:00-5:30pm	Meeting with District Chamber of Commerce (DCCI)	DCCI office
22/11	Fri	10:30-12:30pm	Meeting with ADC General and Municipality	ADC Office
		2:30-4:00pm	Team Meeting	Hotel
		4:30pm	Travel from Kurigram to Dhaka	
23/11	Sat		Desk Work	
24/11	Sun	1st half	Meeting with DDM	DDM
		2nd half	Meeting with MoDMR	MoDMR
25/11	Mon	1st Half	Travelling from Dhaka to Bagerhat	Dhaka Office
		2nd half	Discussion with DRRO Office, DC and Visiting DMIC	DRRO Office - Bagerhat
26/11	Tue	10:00 am-12:00pm	Consultation with DDMC-Cox's Bazar members including DC, ADCs, DDLG, DRRO, Fire Service, CPP, BMD, DAE, Administrator & Secretary of Bagerhat Municipality, DCCI, Academia, Local NGO, CS Office, etc. (10)	DRRO Office hall Room- Bagerhat
		2nd half	Discussions with DDLG-ADC	DRRO Office
27/11	Wed	8:30am-3:00pm	Visiting 01 Upazilla and Union of Bagerhat to understand DMIC	Shoronkhula & Rainda Union

		3:00-4:30pm	Meeting with DCCI/ Private Sector	Bagerhat DCCI
28/11	Thur	1st half	Travelling to Dhaka from Bagerhat	DC Office
		2nd half	National KII with BMD/ FFWC/CPP	Dhaka Office
29/11	Fri	Weekend	Desk Work	Office
30/11	Sat	Morning	National Workshop Preparation	ADPC Dhaka office
01/12	Sun	1st half	National Workshop Preparation	ADPC Dhaka office
		2nd half	National Workshop Preparation	ADPC Dhaka office
02/12	Mon	1st half	Preparation for National Workshop	ADPC Dhaka office
		2nd half		ADPC Dhaka office
03/12	Tue	Daylong	National Workshop/ Meeting	Golden Tulip Hotel
04/12	Wed	1st half	Desk Work	
		2nd half	Debriefing	ADPC Dhaka office
05/12	Thur	Travel from Dhaka to Australia		

ANNEXURE B

List of Documents Reviewed

DOCUMENT	REMARKS
Bangladesh Preparedness Partnership (BPP) Emergency Operations Center (EOC) Technical Brief	March 2023
Comprehensive Disaster Management Programme, Disaster Management Information Network: Project Completion Report (UNDP)	January 2009
CDMP, DMIC Needs Assessment (UNDP)	June 2006
Concept note on National Emergency Operations Center (NEOC) in Bangladesh. By the technical committee for providing comments, suggestions and required corrections on the draft NEOC concept note.	April 2019
Standing Order on Disasters 2019	September 2020
National Plan for Disaster Management (2021-2025) <i>Action for Disaster Risk Management Towards Resilient Nation</i>	March 2020
Disaster Risk Reduction in Bangladesh, Status Report 2020 (UNDRR)	2020
Situation Report Disaster Management Information Center (DMIC) MoDMR, Saturday 25th April 2015, Countrywide Earthquake Situation.	April 2015
Bangladesh Preparedness Partnership (BPP) Phase 02 Concept Note, Functional Disaster Management Information Centers (DMICs) at the District Level	3rd August 2024
Draft Concept Note on The Workshop on Damage and Need Assessing (DANA) System with DANA Committee and BPP Partners	17th August -2022
Comprehensive Disaster Management Programme BGD/01/004 Quarterly Progress Report April - June 2009	July 2009
PowerPoint Presentation on Capacity Development for Disaster Information Management, Bangladesh. By Dr. Jnanendra N Biswas Additional Secretary, MoDMR	Undated
Copies of D Forms and SOS Forms	SOD 2019
An ADPC assessment: The district level Emergency Operation Centre (EOC)	September 2022
Structures of the National Disaster Management Council (NDMC) and Inter-Ministerial Disaster Management Coordination Committee (IMDMCC)	SOD 2019
Towards Multistakeholder Partnership for a Prepared State Process Documentation on Bangladesh Preparedness Partnership (BPP)	June 2023
PowerPoint Presentation: National Disaster Information and Emergency Response Coordination presented by Netai Dey Sarker Director (MIM)Department of Disaster Management	December 2024

ANNEXURE C

List of all KII Participants

DATE	NAME	ORGANIZATION	POSITION
16th Nov 2024	Ms Shivani Gupta	ADPC Bangkok	Project Management Specialist
16th Nov 2024	Dr. Mohammed Ahsan Ullah	ADPC Bangladesh	Senior Project Manager
16th Nov 2024	Mr Faruk Hossain	ADPC Bangladesh	Program Coordinator
17th Nov 2024	Mr. Jahangir Alam	DDM	District Relief and Rehabilitation Officer, Cox's Bazar
17th Nov 2024	Mohammad Salahuddin	District Administration- Cox's Bazar	Deputy Commissioner and District magistrate
17th Nov 2024	Ms. Shamim Akhter	Cox's Bazar Municipality	Social Development Officer (SDO)
18th Nov 2024	Mr Abu Morshed Khoka	District Chambers of Commerce (DCCI) Cox's Bazar	President
18th Nov 2024	A.T.M. Kawser Ahmed	DDM	Project Implementation Officer (PIO)- Ukhiya Upazila, Cox's Bazar
18th Nov 2024	Mir Shahedul Islam Chowdhury	Union Parishad (Acting)	Chairman Rajapalong Union, Ukhiya Upazila, Cox's Bazar
21st Nov 2024	Mr. Uttom Kumar Roy	District Administration	ADC General Kurigram
21st Nov 2024	Mr. Abdul Hay Sarker	DDM	District Relief and Rehabilitation Officer, Kurigram
21st Nov 2024	Nusrat Sultana	District Administration- Kurigram	Deputy Commissioner & District Magistrate
22nd Nov 2024	Mr. K. Fizanur Rahman	DDM	Project Implementation Officer (PIO)- Kurigram Sadar Upazila, Kurigram
22nd Nov 2024	Alhaj- Md. Saidur Rahman	Union Parishad	Chairman, Vhogdanga, Kurigram Sadar Union
24th Nov 2024	Mr. Netai Chandra Dey Sarker	Department of Disaster Management (DDM)	Director-Monitoring and Information Management (MIM)
24th Nov 2024	Mr. Md. Jahid Hasan	DDM	Office in Charge (Emergency Response Center)
26th Nov 2024	Mr. Rabinda Biswas	District Administration	ADP General- Bagerhat

26th Nov 2024	Mohammad Masudur Rahman	DDM	District Relief and Rehabilitation Officer, Bagherat
26th Nov 2024	Mr. Aminul Kawser Khan	Freelance Consultant in Bangladesh	Emergency Management Expert
26th Nov 2024	Mr. Md. Zahidul Islam	Bagethat Municipality	Social Development Officer (SDO)
27th Nov 2024	Mr. Imran Hossain Rajib	Union Parishad	Chairman, South Khali Union- Sharankhola Upazila Bagerhath
27th Nov 2024	Mr Md. Amirul Islam	DDM	Project Implementation Officer (PIO) Sarankhola, Bagerhat
28th Nov 2024	Mr. Ahmadul Haq	Cyclone Preparedness Programme (CPP)	Additional Secretary and Director
28th Nov 2024	Sarder Uday Raihan	Bangladesh Water Development Board Flood Forecasting and Warning Centre	Executive Engineer
28th Nov 2024	S.M.Quamrul Hassan	Storm Warning Centre, Bangladesh Meteorological Department	Deputy Director
1st Dec 2024	Mr. K.M. Abdul Wadud	Ministry of Disaster Management and Relief (MoDMR)	Additional Secretary- DM-01 And Chair- BPP- Mobilization Desk
1st Dec 2024	Ms. Sanzida Yesmin	MoDMR	Deputy Secretary
1st Dec 2024	Mr. Md. Hasan Sarwar	MoDMR	Former Additional Secretary and Chair- BPP Mobilization Desk

ANNEXURE D

Focus Group Discussions

SL. #	NAME OF PARTICIPANT	DESIGNATION	ORGANIZATION
1	Jannatul Ferdous Tasfe	PERT Volunteer	FBCCI, Cox's Bazar
2	Nadiya Akter Lipi	PERT Volunteer	FBCCI, Cox's Bazar
3	Samia Akhter Nishat	PERT Volunteer	FBCCI, Cox's Bazar
4	Mizanur Rahman	PERT Volunteer	FBCCI, Cox's Bazar
5	Towfiqur Rahman	PERT Volunteer	FBCCI, Cox's Bazar
6	Nurul Kabir Jibon	PERT Volunteer	FBCCI, Cox's Bazar
7	Ashraful Huda	PERT Volunteer	FBCCI, Cox's Bazar
8	Md. Atikur Rahman	PERT Volunteer	FBCCI, Cox's Bazar
9	Nazmul Hossen Rafi	PERT Volunteer	FBCCI, Cox's Bazar
10	Nurul Islam Kawsar	PERT Volunteer	FBCCI, Cox's Bazar
11	Absar Alam	PERT Volunteer	FBCCI, Cox's Bazar
12	Md. Khalil	PERT Volunteer	FBCCI, Cox's Bazar
13	Rabiul Hasan	PERT Volunteer	FBCCI, Cox's Bazar
14	Liton Das	PERT Volunteer	FBCCI, Cox's Bazar
15	Tanbir Hossain	PERT Volunteer	FBCCI, Cox's Bazar
16	Ahsanul Hoque	PERT Volunteer	FBCCI, Cox's Bazar
17	Noor Mohammad Faisal Alam	PERT Volunteer	FBCCI, Cox's Bazar
18	Mohammad Rezaul Karim	PERT Volunteer	FBCCI, Cox's Bazar

19	Humayun Kabir	PERT Volunteer	FBCCI, Cox's Bazar
20	Mohammad Nabil	PERT Volunteer	FBCCI, Cox's Bazar
21	Sazadul Kalm	PERT Volunteer	FBCCI, Cox's Bazar
22	Md. Yusuf Khan	PERT Volunteer	FBCCI, Cox's Bazar
23	Sahana Mazumder Chumki	PERT Volunteer	FBCCI, Cox's Bazar
24	Md. Ahsanul Alam Chy	PERT Volunteer	FBCCI, Cox's Bazar
25	Mahmodul Islam	PERT Volunteer	FBCCI, Cox's Bazar
26	Mohammed Khalid Bin Sayed	PERT Volunteer	FBCCI, Cox's Bazar
27	Tasriful Islam	PERT Volunteer	FBCCI, Cox's Bazar
28	Abdul Malek Naeem	PERT Volunteer	FBCCI, Cox's Bazar
29	Shafika Karim	PERT Volunteer	FBCCI, Cox's Bazar
30	Rafika Karim	PERT Volunteer	FBCCI, Cox's Bazar
31	Mobareka Karim	PERT Volunteer	FBCCI, Cox's Bazar
32	Gias Uddin	PERT Volunteer	FBCCI, Cox's Bazar
33	Arifur Rahman Sohag	PERT Volunteer	FBCCI, Cox's Bazar
34	Mohammad Aziz Uddin	PERT Volunteer	FBCCI, Cox's Bazar
35	Kawsar Alam	PERT Volunteer	FBCCI, Cox's Bazar
36	Khurshida Akter	PERT Volunteer	FBCCI, Cox's Bazar
37	Shaariar Kabir Mostafa	PERT Volunteer	FBCCI, Cox's Bazar
38	Kutub Uddin Ahmed	PERT Volunteer	FBCCI, Cox's Bazar

39	Md Maksudul Alam Siddiki	PERT Volunteer	FBCCI, Cox's Bazar
40	Md. Rabiul Alam	PERT Volunteer	FBCCI, Cox's Bazar
41	James Langton	Consultant, ADPC	
42	Shivani Gupta	Program Management Specialist	ADPC
43	Dr. Mohammed Ahsan Ullah	Senior Project Manager	ADPC
44	Faruk Hossain	Program Coordinator (Admin, Finance & Logistics)	ADPC

Meeting with FBCCI-PERT Official, Venue: FBCCI, Kurigram

SL. #	NAME OF PARTICIPANT	DESIGNATION	ORGANIZATION
1	Alok Sarker	Senior Co-Chairman	FBCCI, Kurigram
2	Md. Zahangir Alom	PERT Volunteer	PART, Kurigram
3	Dilip Kumar Saha	Deputy Director, DDM	Government
4	Md. Ahsan Habib Sayem	Member, FBCCI	FBCCI, Kurigram
5	Md. Ruhul Amin	Member, FBCCI	FBCCI, Kurigram
6	Md. Mozammel Hque	Member, FBCCI	FBCCI, Kurigram
7	Wahida Afrin	PERT Volunteer	PART, Kurigram
8	Masrufa Akter	PERT Volunteer	PART, Kurigram
9	Bipul Chandra Ghosh	Member, FBCCI	FBCCI, Kurigram
10	Md. Mozahidul Islam Miror	Member, FBCCI	FBCCI, Kurigram

11	Md. Ataur Rahman Khan	Member, FBCCI	FBCCI, Kurigram
12	Md. Azad Mia	Member, FBCCI	FBCCI, Kurigram
13	Ahmad Mustain	Member, FBCCI	FBCCI, Kurigram
14	James Langton	Consultant, ADPC	
15	Dr. Mohammed Ahsan Ullah	Senior Project Manager	ADPC
16	Faruk Hossain	Program Coordinator (Admin, Finance & Logistics)	ADPC

Meeting with Bagerhat Municipality Official, Venue: Bagerhat Municipality Meeting Room

SL. #	NAME OF PARTICIPANT	DESIGNATION	ORGANIZATION
1	Chayan Pronob Das	Project Officer	(Bangladesh Red Crescent Society), BDRCS
2	Md. Saiful Morshed	Program Officer	(Bangladesh Red Crescent Society), BDRCS
3	Md. Rafiqul Islam	Head Assistant	Bagerhat Municipality
4	Mollick Neamul Khan	Admin Officer	Bagerhat Municipality
5	Mr. Zahidul Islam	Social Development Officer	Bagerhat Municipality
6	Masum Billah	MCO-SDC	Bagerhat Municipality
7	Md. Masudur Rahman	DRRO	Government
8	James Langton	Consultant, ADPC	
9	Dr. Mohammed Ahsan Ullah	Senior Project Manager	ADPC
10	Faruk Hossain	Program Coordinator (Admin, Finance & Logistics)	ADPC

Meeting with Sharankhola Project Implementation Office (PIO) Bagerhat Official, Venue: Sharankohola Upazila Meeting Room

SL. #	NAME OF PARTICIPANT	DESIGNATION	ORGANIZATION
1	Md. Akbar Islam	Station Officer	FSCD, Sharankhola
2	Mahabubur Rahman	Field Officer	CPP
3	Md. Golam Rasul	Field Officer	CIS (Local NGO)
4	Md. Abdur Razzak	CA	Government
5	Md. Mezbaul Rahman	UFF	Government
6	Mr. Nikhil Ranjan Mondal	Field Officer	Shushilan (NGO)
7	Md. Delowar Hossain	Technical Officer	CODEC (NGO)
8	Md. Shahidul Islam	Field Officer	SDD (Local NGO)
9	Mahemunul Islam	Field Officer	CDD (NGO)
10	Md. Nasir Uddin	PIO	Government
11	Md. Masudur Rahman	DRRO	Government
12	James Langton	Consultant, ADPC	
13	Dr. Mohammed Ahsan Ullah	Senior Project Manager	ADPC
14	Faruk Hossain	Program Coordinator (Admin, Finance & Logistics)	ADPC

ANNEXURE E

KII and FGD Questions for National Stakeholders

1. What is your, Organization, Name and Designation?
2. What is your organization's role in Disaster Management?
3. What is your personal role in Disaster Management?
4. Is there a National DMIC? and where is it located?
5. What organization is/should be responsible for a N-DMIC?
6. Which Officer is/should be directly responsible for the N-DMIC?
7. Is the N-DMIC currently operational/Does it operate?
8. How will the N-DMIC fit with the proposed NEOC?
9. Are you aware of the background to the D- DMIC buildings + U- DMICs?
10. In your view what should a DMIC be designed to achieve? How will it work?
11. Where should a DMIC sit within the National DM Structure?
12. What roles do you believe a DMIC should have in managing hazards?
13. Would a N-DMIC portal be useful to your organization?
14. What equipment is needed to organize the operations of the DMIC?
15. What levels of manpower do you think should staff the DMIC?
16. What organizations should provide information to the N-DMIC?
17. What types of information does the N-DMIC need?
18. How is this information to be passed to the DMIC?
19. What types of information should a DMIC send out to stakeholders?
20. By what method will the N- DMIC send this information out?
21. What information does your organization need from the N-DMIC?
22. Any other comments?

Thank you for your time

ANNEXURE F

KII and FGD Questions for Sub-National Stakeholders

1. What Hazards affect the district?
2. Do you know if the district has a Disaster Management Information Center?
3. Do you know what is it/or where is it?
4. What department is responsible for the D-DMIC?
5. Which Officer is directly responsible for the D-DMIC?
6. Is the DMIC operational/Does it operate?
7. What equipment is needed to organize or better organize the operations of the DMIC?
8. What should the operation look like before, during and after disasters?
9. Which organization does the DMIC report to? (Chain of communication)
10. What type of information does the D-DMIC pass up to the N-DMIC?
11. How is this information passed upwards?
12. What information does it receive from above and below?
13. Please explain the information flow process from both up and down to and from Upazilas and Wards?
14. When (if) the DMIC is operational what numbers of staff are deployed and what records are retained?
15. Any other comments?

Thank you for your time

ANNEXURE G

Bangladesh Preparedness Partnership Phase 02 Participants at the National Consultation on DMIC

	SECTOR	AGENCY	NAME
1	Government	Ministry of Disaster Management and Relief (MoDMR)	Mr. Md. Kamrul Hasan ndc
2	Government	MoDMR	Mr. K.M. Abdul Wadud Additional Secretary-DM 01 and Chair, BPP Mobilization Desk
3	Government	MoDMR	Mr. Razwanur Rahman Director General
4	Government	MoDMR	Mr. Hasan Sarwar Former Additional Secretary
5	Government	MoDMR	Mr. Jahangir Alam PS to Secretary (Deputy secretary)
6	Government	MoDMR	Mr. Asim chandra Bani Deputy Secretary
7	Government	MoDMR	Md. Golam Robbani Deputy Secretary
8	Government	MoDMR	Ms. Sanzlda Yesmin Deputy Secretary
9	Government	MoDMR	Mr. Ferdaws Mla Administrative Officer
10	Government	MoDMR	Md. Naglb Mahfuz Administrative Officer
11	Government	MoDMR	Md. Sujon Miah Office Cum Clark
12	Government	Department of Disaster Management (DDM)	Mr. Netai Chandra Dey Sarker Director-MIM (Focal person-ADPC)
13	Government	DDM	Mr. Mohammad Hafizur Rahman Assistant Director (GIS, C.C.)
14	Government	DDM	Mr. Md. Jahid Hasan Office in Charge (Emergency Response Center)
15	Government	Cyclone Preparedness Programme (CPP)	Mr. Md. Sharafat Hossain Khan Deputy Director - Admin
16	Government	ADP General -Cox's Bazar	Md. Yamin Hossain Additional Deputy Commisner (General)
17	Government	DRRO Cox's Bazar	Mr. Jahangir Alam District Relief and Rehabilitation Officer

18	Government	Deputy Commissioner Office, Bagerhat	Mr. ARABINDA BISWAS Additional Deputy General Commissioner
19	Government	DRRO Bagerhat	Mohammad Masudur Rahman District Relief and Rehabilitation Officer
20	Government	Deputy Commissioner Office, Kurigarm	Mr. Uttom Kumar Roy Additional Deputy Commissioner General
21	Government	DRRO Kurigram	Mr. Abdul Hays Sarker District Relief and Rehabilitation Officer
22	Government	Fire Service and Civil Defense	Ahsanul Kabir Sagor Director - Training, Planning and Development
23	Government	Flood Forecasting and Warning Centre	Executive Engineer
24	Government	Storm Warning Centre, Bangladesh Meteorological Department	S.M. Quamrul Hassan Deputy Director (Current charge)
25	Academia	Dhaka University	Mahbuba Nasreen, PhD Professor & Former Director Institute of Disaster Management and Vulnerability Studies
26	Academia	Dhaka University	Dr. Mohammed Moniruzzaman Khan Director IDMVS-Dhaka University
27	Academia	BRAC University	Dr. Imon Chowdhoree Associate Professor, Department of Disaster Management, Brac University,
28	Academia	BRAC University	Muhammad Ferdaus Lecturer, Department of Disaster Management, Brac U
29	Private Sector	FBCCI	Abu Nayem Md. Shahidullah Advisor
30	Private Sector	FBCCI	Mr. Md. Monjur Kader Khan Focal-BPP
31	Private Sector	FBCCI	Mr. Shakhawat Hossain Coordinator
32		FBCCI	Capacity Building Specialist
33	LNGO & CSO	National Alliance of Humanitarian Actors in Bangladesh (NAHAB)	Md. Roushon Ali Coordinator, NAHAB
34	LNGO & CSO	Dwip Unnayan Songstha (DUS)	Subrina Khan
35	LNGO & CSO	Bangladesh Scouts	Mr. Abdullah Mamun Deputy Director Community Development and Health
36	LNGO & CSO	he Foundation for Disaster Forum	Mr. Gawher Nayeem Wahra Member Secretary Foundation of Disaster Forum

37	LNGO & CSO	BRAC- Humanitarian Programme {BHP}	Mr. Khondoker Galam Tawhid Head, Programme Development, Knowledge Management and M & E
38	LNGO & CSO	Center for Disability in Development (CDD)	Mr. Broja Gopal Saha (Deputy) Director Centre for Disability in Development {CDD}
39	LNGO & CSO	Network for Information Response and Preparedness Activities on Disaster (NIRAPAD)	Mr. Rashedul Hasan Coordinator
40	LNGO & CSO	Emergency Management Expert	Mr. Aminul Kawser Khan
41	IGO	ADPC	Mr. Md. Anisur Rahman Consultant
42	IGO	ADPC	Mr. Suprio Ahmed Research and Documentation Officer
43	IGO	ADPC	Dr. Mohammed Ahsan Ullah Senior Project Manager-ADPC
44	IGO	ADPC	Dr. Mohammed Ahsan Ullah Senior Project Manager-ADPC
45	IGO	ADPC	Mr. Faruk Hossain Finance, Admin and Logistics Coordinator
46	IGO	ADPC	Md Kabiol Hossain Communications Consultant
47	NGO	NIRAPAD	S.W.A Kabeen Program Officer

ANNEXURE H

The National Consultation Workshop, Strengthening of Disaster Management Information Centers

TIME	TOPIC	NOTES/FACILITATORS
09.30 - 10.00	Registration	
10.00 - 10.30	Opening Remarks	Mr. K.M. Abdul Wadud Additional Secretary and Chair of BPP Mobilization Desk, MoDMR
10.30 - 11.00	Introduction and clarifying the objectives and expected outcomes.	Mr. James Langton Consultant-ADPC
11.00 – 11.15	Coffee Break (Networking)	
11.15 – 11.45	Presentation by MoDMR & DDM - outlining expectations, linkage with concept of EOCs, plan of action for the next 2 years to support DMIC and EOC as part of institutional support.	Mr. Netai Dey Sarker Director-Monitoring and Information Management (MIM), DDM
11.45 - 12.15	Outline of the concept of a DMIC network its overall framework, objectives and best practices. Outline of the findings from the District Field trips to Cox's Bazar, Kurigram, Bagerhat and discussions with National Stakeholders (Ppt Presentation).	MR. James Langton Consultant-ADPC
12.15– 13.15 (60 Mins Group Work Then Presentations after lunch)	Review of the need for and the resources required to create an enhanced network of DMICs (Hardware, Software and Human Resources)	Participants will split into four small groups (6-8 members/ each group) and discuss a range of questions designed to assist in the design process of creating an improved and effective DMIC Network
13.15 - 14.00	Lunch and Prayer Break	
14.00 - 15.00	The Groups will report their findings in plenary session for discussion and consideration	(15 mins X 4 groups for reporting back and questions)
15.00 – 15.30	Open discussion and the Way Forward	Participants
15.30 – 15.45	Coffee Break (Networking)	
15.45 – 16.15	Overall Review (Summary of the discussion) and discussion of the proposed outline and components of the activation and development of the DMIC, (including required Hardware, Software, HR and other logistics support)	Mr. James Langton Consultant-ADPC

Closing Address	Chief Guest: Mr. Md. Kamrul Hasan, ndc Secretary, Ministry of Disaster Management and Relief (MoDMR) Special Guest: Mr. Razwanur Rahman Director General, Department of Disaster Management (DDM) Chairperson: Mr. K.M. Abdul Wadud Additional Secretary and Chair of BPP Mobilization Desk, MoDMR
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ANNEXURE I

Group Questions used during the National Consultation Workshop

Group 1. The Concept Outline of the DMIC Network

- As DDM is expected to take responsibility for the N-DMIC, how will the N-DMIC connect with MoDMRs NDRCC and later the NEOC? and Should the N-DMIC be co-located with the planned N-EOC when it becomes operational, or should it remain separate?
- What should be the hours of operation of the N-DMIC and D-DMICs during the three disaster phases, before, during and after? And if operating on a 24/7 basis over an extended period, how many shifts should be used?
- How will the D-DMIC connect with U-DMICs, Union Digital Centers (UDCs) and Municipality One Stop Service Centers?
- **What types of roles and functions should be adopted by a DMIC? In addition to gathering and disseminating information what other roles would be useful for a D-DMIC and N-DMIC to perform?**

Group 2. Equipping the District Level DMIC Network, its Hardware, Software and HR Support

- What basic level equipment should be supplied to a DMIC?
- What IT equipment should be supplied to a DMIC?
- What information storage systems should be utilized?
- Should a N-DMIC host a dashboard or similar service?
- What level of human resources should be allocated to a N-DMIC and to D-DMICs?

Group 3. Network Information Requirements and Information Flow

- What departments, organizations and other stakeholders should feed information into the N-DMIC?
- What departments, organizations and other stakeholders should the N-DMIC feed information back to?
- What type of information should be collected/shared?
- How should this information be transmitted and collected?
- Which grassroots stakeholders should feed information into a District DMIC?

Group 4. Sustainability of an Enhanced DMIC Network

- Develop a plan of action (Key Interventions, expected outcomes and the timeline) for Implementation of an enhanced DMIC Network at National level, District level and possibly Upazila level with Linkages both vertically and horizontally.
- Identify and discuss the roadblocks and suggested solutions to the sustainability and future development of the DMIC Network.
- Roadblocks---Suggested Solutions

ANNEXURE J

Equipment and Manpower levels required for the three DMICs.

The following minimal level of equipment and manpower is required for the effective operationalization of the three district DMICs.

SUBJECT	EQUIPMENT NEEDED	NO NEEDED	PURPOSE OF USE
Manpower	In the first instance, BPP-2 may provide one person per D-DMIC. in total. However, arrangements need to be agreed for this responsibility to be taken over by the GoB.	3* 6	Two staff per D-DMIC per eight-hour shift. A supervisor and a data input officer.
General Equipment	Four workstations (Desks)	12	To enable operation by additional staffing levels during surge situations surge capabilities
	Chairs	15	
	Two flat screen TVs for news feeds during disaster events	6	To equip and enable DMIC Operations
	Two photocopier and scanners	6	
	Three White Boards	9	
	Two map Boards	6	
	Two large Clocks	6	
	Four land telephone lines or dedicated mobile phones	12	
	One satellite phone	3	
	One HF radio	3	
	One VHF Radio	3	
	One generator	3	
	One Digital camera	3	
	Two Fire Extinguishers	6	
IT Equipment	Two Desktop Computers	6	Four computers and one solid state hard drive for data storage for each DMIC with power points for additional computers where necessary.
	Two laptop Computers	6	
	One 2 TB Solid State Drive	3	
	Standard Software	Licence for 4+ computers	Microsoft Office or equivalent and any other software usually used by GoB
	Disaster Information Management Software. Suitable Disaster Information Management Software will eventually be needed to supplement the DMI process.	For further development	A bespoke or commercial off the shelf DIM software package will need to be developed or selected to improve the overall DIM process.

Maintenance	Provision of a suitable maintenance budget for the project.		Maintenance budget for fuel (generator), costs for mobiles, Computer servicing and other operational expenses.
Toilet and kitchen facilities	The availability of toilet and kitchen facilities will be necessary for extended periods of operation.		To enable 24/7 operations over extended periods.



Overall Coordination



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