ISCG | Rohingya Refugee Response
INTER SECTOR COORDINATION GROUP | Bangladesh

PROCEEDINGS OF THE

Multi-Hazard Preparedness, Anticipatory Action, and Response

LESSONS LEARNED WORKSHOP

22 April 2024

CONTENT

ACRONYMS

AATWG	Anticipatory Action Technical Working Group
AOR	Area of Responsibilities
APBn	Armed Police Battalion
BDRCS	Bangladesh Red Crescent Society
BFD	Bangladesh Forest Department
BMD	Bangladesh Meteorological Department
CiC	Camp-in Charge
CPP	Cyclone Preparedness Programme
CRA	Community Risk Assessment
DC	Deputy Commissioner
DMC	Disaster Management Committee
DMU	Disaster Management Unit
DoE	Department of Environment
DERF	Disaster Emergency Relief Fund
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DRRO	District Disaster Relief and Rehabilitation Officer
EEN	Energy and Environment Network
EOC	Emergency Operation Centers
EPR	Emergency Preparedness and Response
EPRWG	Emergency Preparedness and Response Working Group
EVIs	Extremely Vulnerable Individuals
EWS	Early Warning System
FAO	Food and Agriculture Organization of the United Nations
FbA	Forecast based Action
FSCD	Fire Service and Civil Defense
FSS	Food Security Sector
HLP	Housing, Land, and Property
IEC	Information, Education and Communication
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
ISCG	Inter Sector Coordination Group
JNA	Joint Needs Assessment
MHRP	Multi-hazard Preparedness and Response Plan
MPCSC	Multi-Purpose Community Service Centers
NFI	Non-Food Item
NGO	Non-Governmental Organization
NPM	Needs and Population Monitoring
PERU	Protection Emergency Response Unit
PHC	Primary Health Care Center
PwD	Person with Disability
RCRC	Red Cross Red Crescent
RDV	Rapid Damage Verification
RRRC	Refugee Relief and Repatriation Commissioner
SCCCM	Shelter, Camp Coordination and Camp Management
SDGs	Sustainable Development Goals
SMS	Site Management Support
SODs	Standing Order on Disasters
SOPs	Standard Operating Procedures
SUV	Safety Unit Volunteer
SWM	Solid Waste Management
TDK	Tie Down Kit
UNO	Upazila Nirbahi Officer
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation, and Hygiene
WFP	World Food Programme
WHO	World Health Organization

SUMMARY

The Lessons Learned Workshop on Multi-Hazard Preparedness, Anticipatory Action, and Response was organized in Cox's Bazar, Bangladesh, on 22 April 2024. Led by the Refugee, Relief, and Repatriation Commissioner (RRRC) and welcomed by the Principal Coordinator of the Rohingya Refugee Response Inter Sector Coordination Group (ISCG) Secretariat, with the presence of the United Nations agencies' heads of offices. Speeches were provided by the United Nations International Organization for Migration (IOM), the United Nations High Commissioner for Refugees (UNHCR), and the International Federation of Red Crescent Societies (IFRC).

The event brought together 74 participants from relevant government agencies, including the District Disaster Relief and Rehabilitation Office (DRRO), Cyclone Preparedness Programme (CPP), Bangladesh Army, Armed Police Battalion (APBn), and Bangladesh Meteorological Department (BMD). Humanitarian organizations were also present, including Red Cross Red Crecent Movement represented by Bangladesh Red Crescent Society (BDRCS), IFRC and American Red Cross and the United Nations agencies (i.e. Food and Agriculture Organization of the United Nations (FAO), United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), IOM, World Food Program (WFP), World Health Organization (WHO), and UNHCR, International Non-Governmental Organizations (INGOs), National and Local Non-Governmental Organizations (N/LNGOs), and NGO Platform. Other attendees were the stakeholders involved in Emergency Preparedness and Response (EPR) operations, Anticipatory Actions (AA), and Disaster Risk Management (DRM).

The workshop aimed to facilitate a comprehensive exchange of perspectives on the existing EPR initiatives and AA, sharing lessons learned through mapping of strengths and best practices and identifying needs and gaps, as well as deciding on actionable recommendations of quick wins, priority actions, and pathways, as ways forward. Additionally, it was foreseen that the workshop would be a platform to foster collaboration among EPR actors to enhance effective coordination, aiming to ultimately build disaster resilience for the Rohingya population and host communities[1].

The workshop followed a structured format, including plenary presentations, breakout group discussions, and interactive sessions. Topics covered included an overview and key learning from the 2023 multi-hazard EPR mechanisms in the Rohingya refugee response and host communities, as well as AA. Meanwhile, the thematic discussions focused on emergency preparedness and response to fires, cyclones, and monsoons, as well as climate change adaptation, risk mitigation, and the environment.

The thematic discussions mapped the strengths and identified needs/gaps. Preconditions for addressing EPR and AA challenges were identified, and the strategic ways forward was collectively decided. This highlighted the priority actions, pathways, and entry points to improve the EPR system.

The main areas and priorities commonly recommended for improvement include:
(i) Comprehensive risk analyses, including multi-hazard impact assessment and consolidation of currently fragmented risk information, to improve timely access to evidence and inform EPR planning, strategies, and decision-making. This includes the availability of disaggregated data of the most vulnerable groups to ensure inclusivity of the EPR, risk mitigation, and site planning of the Rohingya camps.
(ii) Key EPR policies, plans, guidelines, standard operating procedures (SOPs) preparation and their effective dissemination and use to help guide EPR delivery. This includes Search Rescue and Retrieval (SRR), dead body management, mass casualty, and debris management plans for camp and host communities.
(iii) Preparation of a harmonized camp relocation plan, protocol, and guidelines, and systematic implementation of these plans, including advocating for adequate evacuation facilities and

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[1] Communities in Cox's Bazar that were included in the 2024 Joint Response Plan (JRP)

resources. Given the limited safe shelters inside the camps, advocacy for the Rohingya population's potential use of the cyclone shelters in the host community is needed.

(iv)   Improvement of the EPR coordination mechanisms (district to wards/camps), including the establishment and activation of the humanitarian coordination cells (HCCs) and emergency operation cells (EOCs) during emergencies, strengthening disaster management committees at the camps and host communities and building synergy with the district disaster management committee (DDMC) to carry out timely EPR planning.

(v)   Strengthening Early Warning Systems (EWS) to improve effectiveness by contextualizing triggers and developing EWS for localized hazards (e.g., landslides, flash floods, waterlogging, drought, and heat waves) and promoting inclusivity by improving communication and dissemination mechanisms to inform the Rohingya population and host communities to enhance their awareness and decision-making (EW4All).

(vi)   Timely implementation of simulation/drills and emergency stocks, prepositioning aligned with the updated and harmonized contingency plans at all levels, and evaluation and learning exercises to improve future implementation.

(vii)   Intensification of the delivery of by increasing funding, harmonizing concepts and triggers, and building the capacity of the implementing actors, especially volunteers.

(viii)   Improvement of information management, sector assessments, data analyses, and reporting, with increased understanding and clarity of the roles and responsibilities of all actors during the Joint Needs Assessment (JNA) activation and monitoring system during emergencies.

(ix)   Allocation for multi-year strategic lifesaving, recovery, and rehabilitation interventions, thereby increasing household coping mechanisms and building sustainable community resilience.

(x)   Mainstreaming the inclusivity principle across EPR and AA from risk analysis, policy development, and implementation, including relocation and early warning system protocols and guidelines, ensuring increased access for people with disabilities to emergency facilities and early warning messages.

The workshop concluded with a positive commitment to increase collaboration and partnership to implement actionable recommendations by developing pragmatic strategies considering the best practices shared during the event. The overarching vision agreed upon was to enhance existing multi-hazard EPR systems and mechanisms to empower and build the resilience of the Rohingya population and host communities in Cox's Bazar, substantially reducing the potential impacts of disasters on their lives and livelihoods and safeguarding development gains.

INTRODUCTION

Background

Cox's Bazar district is a geographically highly exposed and vulnerable area in Bangladesh which faces multi-hazard risks, including cyclonic storms, flooding, landslides, drought, heat waves, and extreme weather associated with depressions in the Bay of Bengal. On the other hand, fire is becoming a prominent hazard with the increasing frequency of incidents in the Rohingya camps, resulting in massive losses and damage to lives, shelters, and facilities and causing displacement of refugees. Similarly, monsoon-induced landslides and flooding are a recurring crisis, affecting the most vulnerable living in high-risk areas and especially the Rohingya people living in 33 refugee camps in the district.

In response to these challenges, humanitarian actors have invested resources in emergency preparedness and response, anticipatory actions, climate change adaptation, and disaster risk mitigation under the overarching Disaster Risk Management (DRM) framework. These efforts have been coordinated through a sectoral approach to the overall Rohingya Refugee Response, coordinated by the Inter Sector Coordination Group (ISCG) and in close collaboration with the office of the Refugee Relief and Repatriation Commissioner (RRRC) for the Rohingya camps and the Deputy Commissioner (DC) for the host communities in Cox's Bazar. The workshop was intended to be an inclusive dialogue platform for stakeholders who are actively involved in the EPR efforts in the Rohingya camps and host communities in Cox's Bazar. It aimed to exchange lessons learned, map strengths, analyze gaps, dialogue on emergency preparedness and response mechanisms, and anticipatory actions. Moreover, it was foreseen to facilitate collaboration and synergy among humanitarian actors with key government institutions, and to improve the effectiveness of the collective EPR efforts in the camps and host communities. Ultimately, the workshop was designed to generate actionable recommendations and strategies to address challenges, safeguard development outcomes and enhance community disaster resilience.

Objectives

- Facilitate comprehensive exchange of information on existing EPR measures and AA.
- Share lessons learned through mapping strengths/best practices and analysing gaps/needs.
- Identify ways forward and actionable recommendations for quick wins, priority actions, and pathways.
- Foster collaboration among the stakeholders involved in Cox's Bazar district EPR, AA, and DRM efforts.

Expected Learning Outcomes

By the end of the workshop, it was expected to have the following results:

- Document various multi-hazard emergency preparedness and response measures implemented in 2023 in the Rohingya camps and host communities.
- Map strengths, analyse gaps, and identify pre-conditions to address challenges and barriers hindering the effectiveness of multi-hazard EPR and AA.
- Consolidate recommendations for collective priority actions and strategic pathways, including entry points and quick wins to improve EPR, AA, and DRM implementation.

Workshop Main Components

The workshop's principal components were presentations and discussions. There were three plenary presentations on the (i) key learning from 2023 multi-hazard EPR initiatives in the overall Rohingya refugee response, (ii) overview of the EPR and AA in host communities, and (iii) overview of the multi-hazard EPR in the camps in 2023.

Meanwhile, an interactive group and brainstorming exercises was facilitated on the EPR and AA key components concerning the cyclone, fire, and monsoon-induced landslide and flood hazards and climate change adaptation, risk mitigation, and environmental impacts. Nevertheless, the event's highlight was the group output presentations on the stocktaking of EPR measures implemented in 2023, strength mapping, gap analysis, and the collective recommendations of priority activities, pathways, and entry points. For more details, please see the workshop agenda **(Appendix I).**

Workshop Organization and Participation

The ISCG organized the workshop in close collaboration with the RRRC and key EPR Working Group members, including the Sector coordinators. The humanitarian actors, including UN agencies and INGOs, facilitated the group discussions.

The workshop was attended by a total of 74 representatives, representing key government authorities, UN agencies and other humanitarian actors, as detailed on pg. 5 and in the Appendix: Attendance List. The humanitarian actors that were present are coordinated under the Emergency Preparedness and Response Working Group (EPRWG) platform (Appendix II). Also present were the Camp in Charge (CiCs) and Camp Managers, who are members of the Disaster Management Committee (DMC) in the camps and have been crucial in capturing on-the-ground experiences.

OPENING STATEMENTS

Mr. David Bugden, Principal Coordinator of ISCG, welcomed the participants and partners and recognized the importance of the participation of the various stakeholders in the multi-hazard lessons learned workshop. The event's overall objective was mentioned to primarily promote coherent and coordinated efforts for all disaster risk reduction actions in Cox's Bazar, both in the host communities and the Rohingya camps. The Bangladesh Government was appreciated for its commitment to disaster response management, which could be considered a model for other countries accordingly. The participants were requested to focus on exchanging lessons learned that will contribute to better EPR planning in the future. He emphasized the use of science and technology for the Early Warning System (EWS) and improving the coordination system to ensure robust EPR.

Mr. Hrushikesh HARICHANDAN, Head of Sub-Delegation, IFRC in Cox's Bazar, appreciated the ISCG for organizing the workshop. The need for reflection and to produce a collective impact in supporting the Government of Bangladesh was mentioned. The importance of coordinated efforts was highlighted to counter climate and environmental crises in Cox's Bazar. He explained the benefit of the workshop, which was to identify gaps, additional capacities needed, practical support, and commitments. The role of the Cyclone Preparedness Programme (CPP) and Bangladesh Red Crescent Society (BDRCS) was shared, primarily in implementing early warning systems and AA in enhancing readiness and preparedness efforts, particularly relevant for the highly vulnerable Rohingya camps. The importance of coordinated multi-hazard preparedness and response mechanisms was reiterated to minimize disaster losses and damages. Optimism about the workshop outcomes was expressed as a crucial step in updating the Rohingya camp's Multi-Hazard Response Plan. Finally, the IFRC's commitment to strengthening Disaster Risk Management in Cox's Bazar district was affirmed through the collaboration with UN agencies and the government.

Ms. Nihan ERDOGAN, IOM Deputy Head of Mission pointed out the importance and relevance of disaster preparedness and response. She highlighted the global concern of climate change and emphasized that disasters have no boundaries, affecting any region or community. The importance of preparedness in recognizing community vulnerabilities and safeguarding development gains and investments was reiterated. The cost-effectiveness of investing in emergency preparedness was emphasized, stating that a $1 investment can save $7 in response efforts. The limited allocation of resources toward preparedness was raised as a concern, and Bangladesh was commended for being an influential host country that dealt with various disasters. Special appreciation was extended to the government's CPP. The participants were urged to clarify the roles and responsibilities of the different actors, identify commonalities, and build synergies to mitigate the negative impact of disasters.

Mr. Mohan Mani Lamsal, the Senior UNHCR Protection Coordinator, centered his message on the importance of community involvement in disaster preparedness. He accentuated the need for collective recognition of communities' roles and encouraged greater stakeholder participation. The need to be sensitive to the needs of society's most vulnerable members and ensure their inclusion in discussions was underlined. The Bangladesh government's leadership in disaster management was acknowledged and joint efforts and collaboration were called for. Finally, the valuable contribution made by communities towards preparedness and response efforts was attributed.

Mr. Abu Saleh Mohammad Obaidullah, Additional RRRC, emphasized Bangladesh's vulnerability to various disasters while acknowledging the country's global recognition for its coordinated response efforts. He applauded the government's capacity to handle disasters, resulting in minimized loss of lives and livelihoods and progress towards the Sustainable Development Goals (SDGs). Mr. Obaidullah recognized the reality of catastrophe and stressed the crucial role of preparedness for effective disaster management. He specifically highlighted the success of establishing the cyclone early warning system and the significance of the Standing Order on Disasters (SODs), which delineate clear

responsibilities for stakeholders before and after disasters. While acknowledging the absence of a major cyclonic storm in Cox's Bazar since the Rohingya influx in 2017, Mr. Obaidullah emphasized the need to remain prepared for future uncertainties. He expressed concerns about the uncoordinated response to the crisis and underscored the importance of disaster preparedness, strengthening the systems, improving coordination efforts, and developing SOPs tailored to the Rohingya camps. For Mr. Obaidullah, these measures are essential for ensuring a more effective response in the face of future disasters.

PLENARY PRESENTATION

Presentation 1: Key Learning from 2023 Multi-Hazard EPR in the Rohingya Response

The presentation was focused on the key lessons from the 2023 multi-hazard emergency preparedness and response implemented in the Rohingya response, coordinated through the ISCG.

The key progress of the emergency preparedness and response initiatives, particularly improving policies, plans, and guidelines, was highlighted, aiming to build a systematic and coordinated EPR system benefitting the Rohingya population and host communities. While significant strides have been made, there is always room for improvement. The need to strengthen the synergy and coordination of emergency preparedness and response between the government DMCs and the Rohingya response was raised, particularly for Ukhiya and Teknaf host communities targeted under the Joint Response Plan (JRP) 2024.

The success of empowering the camp volunteers as first responders has been emphasized, including the revitalization of the EPR governance and coordination mechanisms and the operationalization of the 33 Camp Disaster Management Committees (CDMCs). The need for complementarity and coherent implementation of the EPR mechanisms across the camps and host communities has been stressed to mitigate disaster impacts and converge meaningful results with the premise of building community resilience.

On the other hand, updates on the improvement of EPR data collection and reporting systems using the daily incident reporting tool have been mentioned in the context of generating timely reports during emergencies. Meanwhile, the harmonization of the joint needs assessments (JNA) in camps and host communities was raised for better alignment of evidence and to produce joint situational reports. The current early warning system communication and dissemination was explained, as it is essential for efficient emergency preparedness operations. It was suggested that the group discussion should find options to add value to the existing system to be more people-centered.

Finally, Mr. Vedharaniyam Karuppiah, the ISCG Deputy Coordinator, explained the workshop objectives and expected outputs, emphasizing its relevance to the key emergencies that affected the Rohingya settlements in 2023 and the residual cyclone risk the Cox's Bazar district residents face annually. For further details, please find the presentation in **Appendix IVA.**

Presentation 2: Overview of the Camp Multi-Hazard EPR in 2023

The presentation by IOM's Site Management and Site Development Programme Manager, Emmanuel Taabu, included the experiences of the multi-hazard emergency preparedness and response efforts and lessons learned regarding EPR actions implemented in the refugee camps in 2023. It focused on hazard profiles, including cyclones, monsoon-induced flooding, landslides and fires, and the impacts and key successes of the preparedness and response. For preparedness, it highlighted the efforts of the DMU volunteers, Local firefighters, first responders, and members of the First On-Site Team (FORT). It also explained the combined

preparedness mechanisms, which include awareness campaigns, contingency and evacuation planning, stock prepositioning and monitoring, and shelter protection. The early warning mechanisms were emphasized, and the key milestones, such as the timely relocation of households during cyclones (Mocha and Hamoon) and the landslide episodes, were detailed. For the response efforts, it was mentioned the involvement of broader coordination between camp communities, government (e.g., Camp in Charge, Fire Service and Civil Defense (FSCD), and APBn, as well as NGO partners. Meanwhile, the details of the disaster impacts were reported, including shelter damage, WASH infrastructure disruptions, and the emerging housing, land, and property (HLP) issues between host communities and refugees.

The presentation also emphasized the identified gaps and needs across all EPR components, especially on coordination, activation of SOPs, contingency planning, community readiness, early warning, impact assessments, rehabilitation, and recovery. The need to mainstream age, gender, and disability was also presented. For further details, please find the presentation in **Appendix IV B.**

Presentation 3: Overview of the Multi-Hazard Emergency Preparedness, Anticipatory Action, and Response efforts in 2023 at Host Community

The presentation provided an overview of the multi-hazard emergency preparedness, anticipatory action, and response efforts implemented in the host communities by various stakeholders in 2023. The Disaster Risk Reduction Analyst of UNDP, Obaidul Islam Munna and BDRCS DRR Coordinator, Shajib Kamal Munshi jointly presented the consolidated experience and learning and highlighted the key pillars of the multi-hazard concept of emergency preparedness, anticipatory actions, and emergency response. The presentation highlighted the progress in building the capacities, strengthening the disaster risk management governance, early warning initiatives, and infrastructure investment in reducing disaster risk.

AA was highlighted as a new approach in the DRM framework nationally. It primarily presented the alignment of early warning in activating the pre-agreed actions, such as the crucial involvement of CPP volunteers for cyclone and landslide early warning dissemination and forecast-based financing. On the other hand, the emergency response efforts detailing the timely evacuation of the extremely vulnerable individuals in cyclone shelters were reported. Other response mechanisms, such as through youth engagement and risk-informed livelihood support, were explained.

Similarly, the gaps and needs across DRM/EPR and AA were mentioned. Specifically for emergency preparedness, updating contingency plans and harmonizing the disaster plan at different levels are key immediate needs. Timely seasonal drills and simulations were identified as crucial preparedness actions that have to be addressed, including the lack of standard modules specially related to fire preparedness drills period. Contextualizing the parameters and threshold while addressing the current limited understanding of using the system is essential for early warning. Moreover, the continuous strengthening of DMCs was stressed to improve their functionalities aligned with SOD 2019. Improving the inclusivity of the EPR efforts by paying attention to people with special needs was considered fundamental, aiming to uphold the principle that no one should be left behind. Finally, the limited funding availability was mentioned as a significant factor influencing the EPR operation's effectiveness. Thus, resource mobilization is fundamental. For further details, please find the presentation in **Appendix IVC.**

THEMATIC GROUP DISCUSSION OUTPUTS

The workshop breakout session had four concurrent groups discussing the emergency preparedness and response for the key hazards such as fire, cyclone, and monsoon-induced landslide and flooding/waterlogging and a topic on climate change adaptation and mitigation that concerns the Rohingya population and host communities in Cox's Bazar district.

The thematic session was designed to foster collaboration, solicit collective views, share lessons learned, and identify common actions, aiming to improve the essential elements of EPR and AA. Specifically, the breakout groups were tasked with answering the following questions:

1. What EPR measures were in place or implemented in 2023?
2. What are the strengths in operationalizing the EPR measures?
3. What are the gaps and barriers/challenges that hinder emergency preparedness, anticipatory actions, and response operations?
4. What areas of operational capability need to be collectively improved? What strategic pathways and entry points should be prioritized to maximize the effectiveness of EPR operations, including implementing AA?

These questions were intended to analyze the progress of the key elements of EPR and AA, including : (i) *Risk analyses, exposure, sensitivity, and vulnerability; (ii) Policies: ERP/SOP/Contingency planning/AA protocol/framework; (iii) Governance: Coordination mechanisms, and engagement of key stakeholders; (iv) Early Warning System operation; (v) Mitigation and Prevention and/or AA; (vi) Life-saving relief/response/early recovery delivery and access; (vii) Build-back-better recovery, rehabilitation, and reconstruction; and (viii) Mainstreaming of cross-cutting themes (inclusivity, age, gender, protection, etc.).*

THEMATIC GROUP 1: FIRE PREPAREDNESS AND RESPONSE

Fire has become one of the major hazards affecting the Rohingya camps due to its increasing frequency and massive impact. It has caused the most vulnerable Rohingya population great suffering, loss of life, and damage to invaluable assets. According to the Needs and Population Monitoring (NPM) daily incident report, in 2023 alone, a total of 529 fire incidents occurred across the 33 Rohingya camps. These incidents displaced over 12,300 people and resulted in 57 injuries. In response to this critical situation, a united front of humanitarian agencies, including IOM, UNHCR, and their partners, have been working to address the fire hazard and reduce its impact by improving preparedness and response efforts.

Considering the disaster impacts, the workshop participants played a crucial role in assessing the collective actions implemented in 2023. They were tasked with mapping the strengths, analyzing gaps, and identifying preconditions to address challenges and underlying issues that become bottlenecks for effective EPR and AA. Their role was pivotal in agreeing on the priority actions, with pathways and entry points defined as a common way forward.
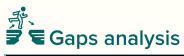
Since fire is not a major hazard in host communities, therefore the group discussion was centered on the camps, and the results are documented below:

Group Discussion Outputs

☑ Stocktaking of emergency preparedness and response in 2023

EPR Key Areas	Emergency Preparedness and Response implemented in 2023
Risk analyses, including exposure, sensitivity, and vulnerability	o Conducted comprehensive mapping and identified vulnerable areas and strategic locations for the firefighting facilities. o Identified risks associated with Liquid Petroleum Gas (LPG), firewood, and other flammable materials, and steps were taken to mitigate fire hazards. o Assessed the accessibility of emergency response, with a particular emphasis on ensuring inclusion and accessibility for people with disabilities. o The Needs and Population Monitoring (NPM) conducted the joint need assessments (JNA).
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Prepared fire preparedness and response plans incorporated in the multi-hazard guides to support disaster response efforts.
Governance: Coordination mechanisms, and engagement of key stakeholders	o Mobilised the Camp DMC and Disaster Management Units (DMUs)/Safety Unit Volunteers (SUVs) as first fire responders during fire incidents.
Mitigation and Prevention and/or AA	o Established water relay systems to address adequate water sources for firefighting. o The use of fire-resistant shelter materials was emphasized to reduce the risk of fire incidents. o Regular fire drills were conducted to improve preparedness and response efficiency. o Personal protective gear was provided to search and rescue units and disaster management committee members to ensure their safety during emergencies. o Community awareness was organized to educate and engage the local population in disaster preparedness. o Deployment of tanks and establishment of additional fire stations to strengthen emergency response capabilities. o Training programs were conducted to enhance the skills and preparedness of community volunteers and personnel involved in disaster management.
Life-saving relief/response/early recovery delivery and access	o There was rapid response by the DMU/ SUV during fire incidents. o Response was also provided by the FSCD. o Mechanisms to provide swift food support and shelter reconstruction were in place.
Build-back-better recovery, rehabilitation, and reconstruction	o Facilitated site planning for better rehabilitation including introducing the fire prevention and fire break options. o Food support through food for work schemes were extended as required. o Expedited shelter reconstruction within 3 months. o Other facilities/infrastructure were also reconstructed.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o The consideration of cross-cutting themes such as inclusivity, gender, and protection were ensured in the response efforts, through the following: (i) The PERU (Protection Emergency Response Unit) team was activated, (ii) Families with extremely vulnerable individuals (EVI), as per Shelter sector criteria received shelter construction support, and (iii) Dignity kits were distributed to address the needs for female members of the affected families.

Strength mapping

EPR Key Areas	STRENGTHS: Areas that contributed to fire emergency preparedness and response capabilities at the camps.
Risk analyses, including exposure, sensitivity, and vulnerability	o The mapping exercises were conducted to assess the level of fire exposure in the camps, enabling resource allocation according to the needs of the high-risk areas. o Rapid impact assessments, through Joint Needs Assessments (JNA), enabled the timely identification and reporting of the affected population's immediate needs, especially for the most vulnerable, facilitating prioritized response efforts. o Utilization of drone imagery for a comprehensive visual analysis of the fire impacts, complementing the rapid assessments that informed decision-making for response optimization.
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o A comprehensive fire response plan outlines the necessary steps and protocols for a coordinated and efficient response to fire incidents. o The DMC guidelines detailed the roles and responsibilities of the members.
Governance: Coordination mechanisms, and engagement of key stakeholders	o Trained SUVs, DMUs, and the First On-site Response Team (FORT), with comprehensive skills and knowledge to effectively respond to fire emergencies. o Proactive Camp Disaster Management Committee (DMC) led by the Camp in Charge (CiC) effectively managed fire risks and coordinated response efforts. The CiC leadership and support contributed to the overall disaster management in the camp settlements.
Early Warning System (end-to-end) operation	o An effective emergency communication tree ensured the prompt dissemination of information to fire-affected neighboring places to relocate.
Mitigation and Prevention and/or AA	o Accessible and available fire response map and plan provided to trained volunteers and fire response teams at the satellite fire stations. o Available firefighting equipment and trained volunteers with contingency materials for immediate response and lifesaving efforts. o Water tanks in each block containing water and sand to use while firefighting were useful.
Life-saving relief/response/early recovery delivery and access	o Mobile fire-fighting units across 33 camps were actively participating in firefighting with 3-wheelers and tuk-tuks. o Donor support and partner collaboration enabled a swift and effective response to fire emergencies in the camp settlements.
Build-back-better recovery, rehabilitation, and reconstruction	o The availability of extended food support (3 months) for shelter reconstruction facilitates the immediate accomplishment of the reconstruction works.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o A significant number of trained and equipped volunteers to carry out fire preparedness and response efforts are women.

Gaps analysis

EPR Key Areas	GAPS: Areas that need improvement in the fire emergency preparedness and response in the camps.
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o There is a lack of adequate space for proper site planning, which includes establishing essential fire-related infrastructure such as fire stations and fire water tanks. This can hinder the prompt and effective response to fire incidents.

Early Warning System (end-to-end) operation	o No fire early warning system.
Life-saving relief/response/early recovery delivery and access	o Absence of special burn injury treatment facility. The Primary Health Care Center (PHC) within the camp settlements does not have a dedicated facility for treating burn injuries. o Longer food support (beyond 3 months) was challenging due to unavailable resources.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Lack of inclusion and consideration for people with disabilities in the risk analysis, which can lead to their specific needs and vulnerabilities being overlooked.

Pre-conditions

EPR Key Areas	Pre-conditions to address the challenges and barriers
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Longer-term funding commitment is essential in implementing plans and strategies that adhere to policies.
Mitigation and Prevention and/ or AA	o Community engagement and awareness-building are essential to promote responsible behavior and resource management during fire incidents.
Life-saving relief/response/early recovery delivery and access	o Crowd management during fire events is crucial to ensure smooth response operation.
Build-back-better recovery, rehabilitation, and reconstruction	o Extensive community consultations are needed to ensure the site plan and shelter designs align with the needs and preferences of the community.

Way Forward

EPR Key Areas	Quick Wins/Entry Points	Longer-term Priorities/Strategic Pathways
Risk analyses, including exposure, sensitivity, and vulnerability	o A comprehensive fire risk and impact assessment to provide evidence for better EPR policies and planning.	
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Effective dissemination strategies on policies to enhance awareness and understanding and alignment of strategies among stakeholders.	o Comprehensive site planning after a fire incident, incorporating robust fire EPR, mitigation, and prevention measures informed by the fire risks assessment and analysis.
Governance: Coordination mechanisms and engagement of key stakeholders	o Fostering ownership by engaging the community in the decision-making processes to promote responsible behavior to take ownership of their safety and mitigate fire risks.	
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Incorporate inclusivity in all fire EPR elements and efforts, especially addressing the needs of people with special needs.	

THEMATIC GROUP 2: CYCLONE PREPAREDNESS AND RESPONSE

Cox's Bazar is one of the cyclone-prone districts because of its geographical position and vulnerability, which are higher than those of other coastal districts. The long, unprotected coastline adds to this heightened disaster exposure.

Over the past decade (2007 to 2017), Cox's Bazar has been directly hit by more than six cyclones, each with wind speeds exceeding 85 km/h[2]. The frequency of these cyclones is on the rise, a clear indication of the urgent need for action. For instance, from 2015 to 2017, a cyclone struck the Cox's Bazar coastal belt annually during the monsoon period from May to July[3].

In 2023, two cyclonic storms wreaked havoc in the two sub-districts of Cox's Bazar. Cyclone Mocha, which made direct landfall on the Myanmar coast in May 2023, left a trail of destruction in Teknaf sub-district, affecting over 400,000 individuals in the camps and host communities[4]. Similarly, cyclone Hamoon, which hit the southeastern coast of Bangladesh near Cox's Bazar, had a profound impact on around half a million people living in camps and host communities[5]. Obviously, the human toll of these disasters cannot be overstated.

While there has been commendable progress in cyclone preparedness across the district, including in the Rohingya camps, it is crucial that we continue to strengthen these efforts. This is especially true when it comes to the evacuation and relocation of the most vulnerable Rohingya and host communities. For the group tasked with this responsibility, it was vital to understand the various efforts, identify gaps and bottlenecks, and find ways to improve the EPR system and mechanisms for cyclones.

Group Discussion Outputs

Stocktaking of emergency preparedness and response in 2023

EPR Key Areas	STRENGTHS: Emergency Preparedness and Response implemented in 2023	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Risk analyses across 33 camps for cyclone preparation and response were conducted.	o Hazard mapping and vulnerability assessments were conducted at the Upazila (sub-district) level to understand the affected areas' exposure, sensitivity, and overall risk profile.

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[2] ACAPS Briefing note - Bangladesh and Myanmar: Impact of Cyclone Mocha (23 May 2023) - Bangladesh | ReliefWeb
[3] ibid
[4] Bangladesh Cyclone Mocha 2023 DREF Final Report (MDRBD030) - Bangladesh | ReliefWeb
[5] Ibid

EPR Key Areas	STRENGTHS: Emergency Preparedness and Response implemented in 2023	
	Rohingya Camp Settlement	Host Community
Policies: ERP/SOP/ Contingency plan/ AA protocol/framework	o The Multi-Hazard Response Plan (MHRP) has existed since 2022, although it is subject to revision. o The dead body management plan and shelter management policy are available. o The camp DMC guideline was operationalized. o Emergency response plan checklists were updated and followed before and after the cyclone. o Information, education, and communication (IEC) materials were developed using the 2019 approved Cyclone Preparedness Field Discussion Guide. o Catchment-focused sector-based camp-level emergency response plans for the delivery of life-saving relief, response, and early recovery efforts.	o Disaster Management Act 2012 is in place. o Standing Orders on Disaster (SOD) 2019 is considered as the main policy document followed by the EPR operations. o The Guidelines on Dead Body Management prepared in 2016 were followed during the cyclone aftermath. o Shelter management policy was followed for early recovery and rehabilitation. o Contingency stocks and plans were developed.
Governance: Coordination mechanisms and engagement of key stakeholders	o Stakeholder workshops have been organized to strengthen coordination mechanisms. o Engagement and mobilization of the Camp DMC and DMU/SUV/CPP volunteers, government authorities (CiCs), and humanitarian agencies. o Operationalization of the camp DMCs.	o Stakeholder workshops have been organized to strengthen coordination mechanisms. o Engaged key stakeholders in disaster risk management efforts. o Activated all levels of DMCs.
Early Warning System (end-to-end) operation	o The national cyclone early warning system was operationalized through Camp DMC and camp-level volunteer networks. o There was an ongoing effort to pilot a landslide early warning system. o BMD and the RIMES portal have been utilized as sources of warning information for alerts and advisories.	o The national cyclone early warning system was activated and is operating through the CPP. o Efforts to pilot landslide early warning system. o BMD and RIMES portals were used for early warning. o Early warning messages were monitored from district to upazila levels according to the warning stages.
Mitigation and Prevention and/or AA	o Initiatives had commenced constructing multipurpose building as cyclone centers. o NFIs, including tie-down kits, were distributed before the cyclone for shelter strengthening. o Cyclone drills were conducted. o Personal protective gear was provided to search and rescue teams and disaster management committees. o Community awareness initiatives were organized to educate and	o Renovation of existing multi-purpose cyclone shelters were undertaken.

EPR Key Areas	STRENGTHS: Emergency Preparedness and Response implemented in 2023	
	Rohingya Camp Settlement	Host Community
	engage the local population in disaster preparedness. o Contingency stocks were updated to strengthen emergency response capabilities. o A series of training sessions were conducted to enhance the skills and preparedness of community volunteers, DMC members, and personnel involved in disaster management.	
Life-saving relief/response/early recovery delivery and access	o The provision of emergency food supply and basic support by the sectoral partners. o A Mobile Medical Team (MMT) was deployed for immediate life-saving support. o NFI distribution was done.	o Stock prepositioning and contingency planning were implemented to ensure the timely delivery of life-saving relief, response, and early recovery efforts.
Build-back-better recovery, rehabilitation, and reconstruction	o Shelter reconstruction took place according to the site management plan in coordination with the respective CiCs in the affected areas.	
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o The age and disability working groups were actively involved in ensuring the inclusion of the cross-cutting themes in the EPR efforts.	o While efforts were made to include cross-cutting issues such as inclusivity, age, gender, and protection, the workshop participants noted that inclusion was relatively less prioritized than other areas.

Strength mapping

EPR Key Areas	STRENGTHS: Areas that contributed to cyclone emergency preparedness and response capabilities	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o The existing hazard maps are available. o Available skilled human resources to carry out thorough risk assessments.	
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Policies and plans are available such as the Multi-Hazard Response Plan (MHRP), DMC guidelines and sector-based ERP checklists. o Guidebook of Multi-Hazard Risk Communication and Community Engagement in Camp Settlement.	o The existing policies such as SoP, DRM Act and DMC guidelines. o o Contingency to deploy the Army for emergency support if required.
Governance: Coordination mechanisms and engagement of key stakeholders	o The activated Humanitarian Coordination Cell, the establishment of a control room at the Camp-in-Charge (CIC) office, and the operationalization of the Emergency Operations Cell (EOC).	o The active DMCs held immediate meetings upon the issuance of cyclone signals, enabling a control room at the District Commissioner's (DC) office to facilitate 24-hour monitoring of the situation.

EPR Key Areas	STRENGTHS: Areas that contributed to cyclone emergency preparedness and response capabilities	
	Rohingya Camp Settlement	**Host Community**
		o o The presence of well-established coordination mechanisms among all government and non-government humanitarian actors working on disaster response management.
Early Warning System (end-to-end) operation	o An established national cyclone early warning system ensured the prompt dissemination of information to facilitate well-coordinated preparedness and response among the various agencies and organizations involved. o Piloting of a landslide early warning system, and the utilization of the Regional Integrated Multi-Hazard Early Warning System (RIMES) portal.	
Mitigation and Prevention and/or AA	o 21 Multi-Purpose Service Centers (MPSCs) are under construction for relocation needs.	o Over 500 cyclone/multipurpose shelters are critical infrastructure for safeguarding the affected populations.
Life-saving relief/response/early recovery delivery and access	o Deployment of approximately 400 Army personnel to the camps available to support during emergencies. o The presence of various agencies/humanitarian actors supporting life-saving relief services. o Sector-specific response plans guide the timely provision of life-saving relief.	o The active presence of humanitarian agencies deployed for immediate life-saving response. o A centralized response mechanism led by the DDMC.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Women volunteers are engaged in EPR efforts.	o 50% of the CPP volunteers are women and women participating as members of DMCs.

🏃‍♂️ Gaps analysis

EPR Key Areas	GAPS: Areas that need improvement in the cyclone emergency preparedness and response:	
	Rohingya Camp Settlement	**Host Community**
Risk analyses, including exposure, sensitivity, and vulnerability	o No data or information is accessible. o Lack of data/information sharing.	o Information dissemination and access is challenging.
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Lack of guidelines and harmonized evacuation plan. o o There are no guidelines for managing cyclone shelters.	o A comprehensive DMC directory. o o A detailed list of union-wise cyclone shelters. o o Clear guidelines on how the host community should utilize cyclone shelters.

EPR Key Areas	GAPS: Areas that need improvement in the cyclone emergency preparedness and response:	
	Rohingya Camp Settlement	Host Community
Governance: Coordination mechanisms and engagement of key stakeholders	o The communication between the District Commissioner's (DC) office and the Refugee Relief and Repatriation Commissioner's (RRRC) office was disconnected, which hindered the effectiveness of the overall coordination efforts.	
Early Warning System (end-to-end) operation	o Early warning information needed to be more inclusive (*i.e.* end-to-end), potentially excluding vulnerable groups within the camp population.	
		o No adequate support for the Cyclone Preparedness Programme (CPP) volunteers, who were the primary EW disseminators.
Mitigation and Prevention and/or AA	o The absence of comprehensive evacuation plans. o Lack of agreement for the alternative relocation/evacuation of the refugee population.	o Lack of dedicated funding to support the implementation of AA.
Life-saving relief/response/early recovery delivery and access	o Ensuring longer-term food support is challenging to continue for the food security sector.	
	o The humanitarian agencies often prioritized their mandates over responding to the actual needs of the affected populations, leading to potential gaps in the delivery of critical assistance.	

🔑 Pre-conditions

EPR Key Areas	Pre-conditions to address the challenges and barriers:	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Increased funding. o Systematic risk assessments and analysis guidelines. o Guidelines for drills and simulations.	
Policies: ERP/SOP/ Contingency plan/AA protocol/framework	o Designated body to carry out sensitization and awareness of policies/plans and frameworks.	o Technical support to review current DRM/EPR policies/plans and system.
Governance: Coordination mechanisms and engagement of key stakeholders	o Streamlined coordination mechanism.	o Integration of efforts among the various agencies and authorities involved in the emergency management.
Early Warning System (end-to-end) operation	o Comprehensive process to review the effectiveness of the existing early warning systems.	
Mitigation and Prevention and/or AA	o Increased resources, for example, the Tarpaulin Shelter Kits (TDKs).	o Standard Operating Procedures (SOP) on evacuation.
Life-saving relief/response/early recovery delivery and access	o Clear surge and alternative support systems.	o Decentralization of disaster funds. o Prioritization of Disaster Response Coordination Groups.

→ Way Forward

EPR Key Areas	Quick Wins/Entry Points and Longer-term Priorities/Strategic Pathways:	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Leveraging the existing risk assessments to update exposure, sensitivity, and vulnerability for a comprehensive analysis. o Utilization of evidence for informed decision-making.	
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Awareness-raising regarding the existing policies, SOPs, contingency plans, and anticipatory action protocols.	
	o To designate a lead agency or entity responsible for overseeing the implementation of the EPR policy.	
Governance: Coordination mechanisms and engagement of key stakeholders	o Streamlining the existing coordination mechanisms. o Fostering collaborative efforts among the various agencies and authorities involved in emergency management.	o Addressing the needs of the Cyclone Preparedness Programme (CPP) volunteers, such as providing transportation support to enable their active participation in emergency response.
Early Warning System (end-to-end) operation	o The development of location-specific landslide and flash flood early warning systems.	
	o Disseminating early warning information in the local language.	
		o Travel allowances should be provided for the CPP volunteers to facilitate early warning dissemination.
Mitigation and Prevention and/or AA	o Increase the number of Multi-Purpose Service Centers (MPSC) for emergency relocation. o Use of durable materials for shelters. o Increasing the periodic distribution of Tie-down Kits (TDKs).	
Life-saving relief/response/early recovery delivery and access	o Resource mobilization is needed to address the current gaps in critical services and operations. o Prepare business continuity plan.	o The effective decentralization of disaster funds. o The streamlining of Ward Disaster Response Coordination Groups (WDRCGs) and Union Disaster Response Coordination Groups (UDRCGs) to enhance response coordination. o The integration of the CPP volunteers into the overall response efforts.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Promote 50% of camp volunteers to be women.	o Empowerment of women CPP volunteers.

THEMATIC GROUP 3: MONSOON PREPAREDNESS AND RESPONSE

Cox's Bazar District has a tropical monsoon climate characterized by high temperatures, heavy rainfall, and high humidity throughout the year. The monsoon season in Cox's Bazar is typically from June to October, peaking between July and September. During this period, the district will likely receive a daily average of over 300 mm of precipitation.

Given the location of the Rohingya refugees living in most barren hills and congested spaces, they are the most exposed and vulnerable population. Evidence shows that 19% of the camps are high to moderately susceptible to landslides[6]. Thus, there is a likelihood of being affected by the erratic monsoons. The sustained heavy downpours often result in severe flooding and landslides, particularly impacting the high-risk, hilly, and low-lying areas where the Rohingya refugee camps are located. This led to the destruction in 2023 of 850 shelters and essential facilities such as learning centers, health posts, and Water, Sanitation, and Hygiene (WASH) facilities, rendering them unusable and in need of immediate repair or replacement [7]. Notably, the monsoon affected over 8,400 refugees and more than 1,600 households.

This shows that with climate change, the monsoon-induced disasters significantly threaten the lives and livelihoods of the host communities and the Rohingya populations. To mitigate the impacts, the government, UN agencies, and other humanitarian partners work closely with communities, including the Rohingya to ensure effective emergency preparedness and response systems and overall implementation of disaster risk reduction measures.

Despite the efforts, the recurrent nature of the monsoon-induced seasonal hazards remains a major challenge. With this in mind, the group was tasked with reflecting on how the different types of actions implemented and promoted help to reduce the risk, enable identification of gaps/needs, and create pathways to advance the proposed new strategies. This continuous process of reflection and discussion is crucial for our collective efforts to improve and adapt to the changing conditions.

Group Discussion Outputs

📋 Stocktaking of emergency preparedness and response in 2023

EPR Key Areas	Emergency Preparedness and Response implemented in 2023	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Camp-wise hazard mapping (flood and landslide) was conducted. o Established daily incident data collection tool and reporting.	o Community Risk Assessment (CRA) reports are available at the Upazila to Union levels, with information on hazards, vulnerability, and capacities.

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[6] NASA Model 2019
[7] Daily Incident Report Dashboard

EPR Key Areas	Emergency Preparedness and Response implemented in 2023	
	Rohingya Camp Settlement	Host Community
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o The Multi-Hazard Response Plan (MHRP) was in place to guide the EPR actions. o The DMC guideline was operationalized. o Sector-based/Camp-based contingency plans and emergency response plan checklists were updated and followed.	o The Standing Order on Disaster (SOD) was revised in 2019, aligning with emerging needs which was a guiding document for national to local level government officials. o Disaster Management Act 2012 is in place.
Governance: Coordination mechanisms, and engagement of key stakeholders	o Periodic DMC meetings have been taking place in camps for coordinated emergency preparedness and response efforts, including monsoon. o Conducted orientation of the camp DMC guidelines. o Camp DMC guidelines were disseminated and expected to be followed by the members.	o DMCs from the national to local level and response coordination groups were implemented to coordinate emergency preparedness and response efforts, including for the monsoon season. o Regular meetings are conducted. Updates were available to ensure that effective governance/coordination mechanisms were in place. Timely activation of emergency coordination. o Pre-monsoon workshops conducted.
Early Warning System (end-to-end) operation	o Early warning messages were disseminated across the camps through the trained camp volunteers, who coordinated with respective site management supported by BDRCS/CPP, IFRC, UNHCR, IOM, the ISCG, and the Office of the RRRC.	o The early warning messages were disseminated through loudspeaker/miking and door-to-door campaigning.
Mitigation and Prevention and/or Anticipatory Actions	o Small-scale mitigation activities were implemented through Site Development agencies and DRR partners. o Community awareness raising was organized to educate and engage the local population in disaster preparedness. o Regular site planning was undertaken. o Training programs were conducted to enhance the skills and preparedness of community volunteers, DMC members, and personnel involved in disaster management. o Regular plantation activities and other nature-based solutions were carried out.	o Renovation of existing multi-purpose cyclone shelters also used for monsoon evacuation was undertaken. o Small-scale mitigation activities and pilot projects were implemented through government departments, humanitarian and development partners.

EPR Key Areas	Emergency Preparedness and Response implemented in 2023	
	Rohingya Camp Settlement	Host Community
Life-saving relief/response/early recovery delivery and access	o Contingency stocks were revised, including emergency stockpiling of NFIs to strengthen emergency response capacities.	o Life-saving relief storage was available at the government and agency levels.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Training and awareness sessions were conducted. o Assessments were carried out to identify the needs. o Aid devices were provided to people who need support. o Vulnerable people were prioritised during evacuation and relief distribution.	

Strength mapping

EPR Key Areas	STRENGTHS: Areas that contributed to Monsoon emergency preparedness and response capabilities	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Available agency-based guidelines, structures, tools, and methodologies.	
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o Existence of Multi-Hazard Preparedness and Response Plan of ISCG and camp level EPRP. o The DMC guidelines. o Agency/Sector-based Emergency Response Plans.	o The DMC guidelines provided a solid foundation for the emergency response efforts.
Governance: Coordination mechanisms and engagement of key stakeholders	o The institutional presence and functionality of ISCG and RRRC were crucial to coordinating the Rohingya refugee response overall. o Trained SUV and DMU volunteers. o DMC mechanisms and guidelines were in place to ensure proactive support of monsoon preparedness and response.	o Local government systems' institutional presence and functionality, including the DMC mechanisms, were crucial to providing overall preparedness and response support to the monsoon. o Robust coordination mechanism under the leadership of the Deputy Commissioner, cascading to upazila nirbahi officers (UNOs), upazila chairmen, and union level chairmen and ward councilors.
Early Warning System (end-to-end) operation	o The BMD/Regional Integrated Multi-Hazard Early Warning System (RIMES) forecast dissemination portal and landslide early warning system were accessible and user-friendly. o The existence of audience-specific IEC materials for monsoon preparedness, anticipatory action, and response in the camps was useful.	
Mitigation and Prevention and/or AA	o Cash for work to clean gutters was in place. o Community participation was in place.	
Life-saving relief/response/early recovery delivery and access	o Prepositioned emergency stock was in catchment containers.	o DRM funds were allocated
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Cross-cutting issues were mainstreamed in the essential guidelines and plan. o Sectoral plans included EPR for persons with specific needs.	

Gaps analysis

EPR Key Areas	GAPS: Areas that need improvement in the monsoon emergency preparedness and response	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o A hazard-specific analysis required updating to reflect the most relevant parameters.	o Landslide-prone area mapping remains to be fully done.
Policies: ERP/SOP/Contingency plan/AA protocol/framework	o The sensitization to ensure ownership of policies must be improved.	o The execution and governance of EPR policies and plans requires strengthening.
Governance: Coordination mechanisms and engagement of key stakeholders	o There is a lack of in-depth understanding of DMC guidelines and its operations.	o The governance and coordination mechanisms still need to be fully functional.
Early Warning System (end-to-end) operation	o Lack of knowledge and capacity to operationalize the early warning system by the stakeholders and communities.	
	o The early warning system needs to be fully people centered.	
Mitigation and Prevention and/or AA	o The absence of comprehensive evacuation plans, guidelines, and protocols jeopardizes people's timely and effective movement to safer locations.	o The absence of prioritization in infrastructure planning means there is limited capacity to support risk mitigation and prevention.
Life-saving relief/response/early recovery delivery and access	o Lack of contingency funds or resources for emergency life-saving relief/response/early recovery delivery and access.	o The policies and rules to accessing DRM funds are unclear.
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)		o Lack of access to information to support mainstreaming cross-cutting issues such as age, gender, disability, etc.

Pre-conditions

EPR Key Areas	Pre-conditions to address the challenges and barriers:	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Increasing the opportunities for community participation o Creating guidance to increase effective inter-sectoral engagement in EPR.	o Mechanisms for sectoral and departmental involvement.
Policies: ERP/SOP/ Contingency plan/AA protocol/ framework	o Enabling environment to facilitate context-specific protocols/policies/SOP and plans.	
Mitigation and Prevention and/or AA	o Guidance to reduce duplication of EPR implementation.	
Life-saving relief/ response/early recovery delivery and access	o Advocacy strategies for funding and resource mobilization are key to strengthening the overall preparedness and response mechanisms.	

EPR Key Areas	Pre-conditions to address the challenges and barriers:	
	Rohingya Camp Settlement	Host Community
Build-back-better recovery, rehabilitation, and reconstruction		o Access to remote areas to facilitate timely rehabilitation and reconstruction efforts.

→ Way Forward

EPR Key Areas	Quick Wins/Entry Points and Longer-term Priorities/Strategic Pathways:	
	Rohingya Camp Settlement	Host Community
Risk analyses, including exposure, sensitivity, and vulnerability	o Updating the hazard maps in coordination with relevant agencies is essential, incorporating the underlying causes of risk. o Comprehensive risk analysis to understand exposure, vulnerability, and capacities in the 33 camps.	o Integration of risk analysis with the government's longer-term planning.
Policies: ERP/SOP/Contingency planning/AA protocol/framework	o Adequate orientations to align policies for organizational planning processes.	
Governance: Coordination mechanisms and engagement of key stakeholders	o The strengthening of the coordination mechanisms to ensure proactive engagement of DMCs and responsible agencies during the preparedness and response phases.	
	o EPR Working Group should be operational and work with partners and agencies to monitor and align the initiatives, as well as ensure initiatives are capacity-strengthening.	
Early Warning System (end-to-end) operation	o Develop EWS protocol and guidelines. o Promote localized EWS for context-based hazards (i.e., Landslides, flooding, and waterlogging).	
Mitigation and Prevention and/or AA	o Establishing temporary access roads to be used during emergency response.	
	o Regularised cleaning of drainage systems and canal excavation. o Promote watershed management to reduce landslide and flooding risks.	
Life-saving relief/response/early recovery delivery and access	o Strengthen emergency telecommunication systems and improve network infrastructure.	
Build-back-better recovery, rehabilitation, and reconstruction		o Incorporating Indigenous knowledge in the design and implementation of infrastructure (i.e shelters, bridges, etc.)
Mainstreaming of cross-cutting themes (age, gender, disability, etc.)	o Enhancing allocation of resources to provide special EPR services.	o Strengthening sensitization regarding inclusivity, protection, and other relevant areas for the DMC coordination mechanism.

THEMATIC GROUP 4: CLIMATE CHANGE MITIGATION, ADAPTATION AND RESILIENCE

The densely populated camps, lacking adequate infrastructure, are particularly vulnerable to extreme weather events and are highly exposed to disaster risks. Thus, they require significant climate change adaptation and risk mitigation support.

Efforts to mitigate the negative effects of climate change began in 2018. The focus was promoting sustainable resource management, reforestation, and enhancing resilience against climate impacts by adopting nature-based solutions (NbS). The strategies include integrated watershed management in host communities and a Blue Green Network approach in the camps with the integration of disaster risk reduction principles. Implementation of responsible water use, and conservation practices such as the adoption of rainwater harvesting and the introduction of climate-sensitive irrigation schemes to improve water supply due to saline intrusion caused by excessive pumping, were encouraged.

Approximately 700 hectares of land have been reforested in the Rohingya camps, and efforts to restore the original landscape have also been carried out. However, mitigating hydrological and meteorological disaster risks, particularly monsoon-induced landslides and flooding, remains a challenge, considering the significant impacts of climate change[8].

Group Discussion Outputs
Stocktaking of Needs

Key Components	Rohingya Camp Settlement	Host Community
Climate mitigation, adaptation, and resilience needs	o The issue of environment waste has grown over time. UNHCR is conducting small-scale initiatives to address this concern. o Limited solar repair services to ensure sustainable energy solutions. o Expansion of landfill areas due to the increasing waste. o Increasing plastic waste vis-à-vis limited plastic recycling facilities. o Lack of effective implementation of the polythene ban policy. o Wastewater from the camps running into the host community affects the salt fields and crops. It becomes a concern for public health (mosquito breeding, etc.). The need to cover drainage and canal systems is crucial. o Lightning protection in camps is currently not available. o Mosquito breeding inside households increases with water in containers stored for long periods.	o Decreasing water availability both surface and aquifer. o Quality of water due to salinization. o Groundwater is not available in Teknaf especially during the dry season. o Drought impact on the availability of water for domestic use and livelihoods. o Lack of proper grounding of the lightning protection at mobile network towers. o Human elephant conflict remains an issue to address.

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[8] Energy and Environment | Rohingya Response

Key Components	Rohingya Camp Settlement	Host Community
	o Measures to mitigate heatwave consequences such as pneumonia/diarrhea/skin diseases, especially for vulnerable populations are needed.	
Environmental policies	o Camp communities need to actively participate in solid waste management (SWM) initiatives. o A polythene ban has been implemented, which aims to reduce plastic waste and promote environmental sustainability. o Humanitarian policies have been established in the Rohingya camps, prioritizing the residents' wellbeing and protection.	
Environmental coordination mechanism	o Regular coordination carried out by EEN continues to be needed o Active engagement of the Bangladesh Forest Department (BFD).	o DRM coordination exists at the Upazila level.

Strength mapping

Key Components	Rohingya Camp Settlement	Host Community
Climate mitigation, adaptation, and resilience needs	o Watershed management approach promoted.	
Climate mitigation, adaptation, and resilience needs	o On-going reforestation program to stablise slopes, rehabilitate land, enable carbon sequestration and provide cooling effect to the environment. o Ongoing WASH efforts that prevent drainage blockage. o Existing initiative through DRR mobilization and awareness raising. o Promoted green structural DRR mitigation or Nature-based Solutions for DRR. o Ongoing Liquefied Petroleum Gas initiatives contribute to the reduction of cutting trees.	o Schools have integrated environment into the curriculum.
Environmental policies	o A polythene ban exists. o Humanitarian policies relating to the environment are available.	o Existence of the Climate adaptation policies at national level. o District development plan in place that considers various factors, including climate adaptation, to ensure a holistic and sustainable approach to development.
Environmental coordination mechanism	o Humanitarian Energy and Environment Network is functional. o Engagement of the Bangladesh Forest Department (BFD) is in place.	o Functional DMC committees with strong understanding of environmental issues.

🏃 Gaps analysis

Key Components	Rohingya Camp Settlement	Host Community
Climate mitigation, adaptation, and resilience needs	o Limited community mobilization. o More reforestation/greening is needed. o Limited community ownership of the greening initiatives. o Proper care and maintenance of plantations is needed. o No integration of the risks mapping in strategy development and planning. o Measures to address flooding in downstream areas are missing/limited.	o Limited capacity building opportunities for communities. o Limited resources for social cohesion including settling the Housing, Land, and Property (HLP) issues in order to increase ownership of the environment. o Attention to reforestation is limited. o Less initiatives working with students and youth to foster generational change for environmental stewardship.
	o There is no provision of funds to address environmental issues in the camps and host communities.	
Environmental policies	o Limited knowledge and understanding of policies between the RRRC and CiCs. o There are concerns about the effectiveness of locally funded policies, which may lack sufficient resources and support.	o There is a lack of synergy between Cox's Bazar context, which includes the humanitarian context in camps and the national or regional level policies. o The district development plan does not include community risk assessment and reduction strategies.
Environmental coordination mechanism	o There is a lack of engagement with the Department of Environment (DoE), a regulatory body. o During emergencies or special occasions, external NGOs have intervened in the camps with uncoordinated interventions. o Less community engagement.	o This lack of coordination and alignment can create challenges in effectively addressing the needs and priorities of the camps within the broader policy framework. o Accountability is lacking in the coordination mechanisms. o Coordination gap between DRM and humanitarian bodies.

Pre-conditions

Key Components	Rohingya Camp Settlement	Host Community
Climate mitigation, adaptation, and resilience needs	o Site planning and mapping of spaces for reforestation/greening.	o Systems strengthening and capacity building on early warning information to increase dissemination from top to bottom.
	o Increase funding allocation and resource mobilization.	
Environmental policies		o An enabling environment to promote engagement of students and youth in environment and DRR. o Planning processes to ensure equal focus between Ukhiya and Teknaf.
Environmental coordination mechanism	o Institutionalization of community mobilization and engagement processes.	o Creating coordination mechanisms for the DRM working groups to be fully functional.

Way Forward

Key Components	Rohingya Camp Settlement	Host Community
Climate mitigation, adaptation, and resilience needs	o Implement solar energy solutions in camps to provide residents access to clean and reliable electricity, improving their quality of life and ensuring dignity and empowerment. o Alignment of the Energy and Environment Network strategy in the Rohingya camps with the broader district-wide strategy and mechanisms is important. o Expanding the national grid into camp settlements can provide a long-term solution to energy access. This would allow residents to connect to the existing electricity infrastructure and access a reliable power supply. o Implement waste-for-energy in camps, as a way to manage the waste. o Bangladesh's national strategy recognizes LPG as a stopgap measure for building a grid. This strategy aims to provide a temporary energy solution while working towards the long-term goal of grid connectivity. o Explore surface water extraction methods that can provide a sustainable camp water source. This can help meet the residents'	o Promote and implement responsible irrigation systems in agriculture, such as using efficient irrigation techniques and water management strategies through the food security sector. o Explore utilizing diverse water sources, such as different water tables and alternative water supply systems. o District-wide scaling of watershed management adoption and implementation. o Develop or implement programs on plastic reduction and effective solid waste management.

Key Components	Rohingya Camp Settlement	Host Community
	water needs and reduce their dependence on limited groundwater resources. o Implement initiatives to reduce plastic use by promoting the use of jute bags. Also, to build plastic recycling facilities.	
Environmental policies	o The policies directed by the RRRC are effective when implemented in collaboration with NGOs.	o Economic penalties could be considered as a means of enforcement.
	o Stronger regulatory enforcement from the RRRC and NGOs is needed to ensure compliance with policies and regulations.	
	o Harmonization of environmental plans between camps and host communities.	
Environmental coordination mechanism	o There is a need for greater engagement with the community to address their environmental needs.	o Better capacity and a strengthened system are needed. o Strengthening coordination efforts between humanitarian and development actors (World Bank and ADB).
	o Harmonization of environmental coordination mechanisms between camps and host communities.	

CONCLUSION

The workshop generated positive momentum and a spirit of collaboration, with participants providing encouraging feedback. It highlighted numerous opportunities to advance emergency preparedness and response in the Rohingya Refugee Response and the host communities. By mapping strengths, analyzing gaps, and identifying preconditions, it captured valuable lessons to address challenges and barriers, encouraging and motivating all stakeholders.

Notably, the workshop participants offered valuable ideas and recommendations on how to move beyond the EPR and AA's existing mechanisms, focusing on pragmatic and contextualized approaches to improve the EPR system. Specifically, it provided a roadmap of actionable strategies such as enhancing early warning systems and priority areas like strengthening partnerships, improving coordination effectiveness, and building community resilience. Key recommendations included incorporating disability-inclusive approaches, fostering community ownership, enhancing site planning and infrastructure, and ensuring the sustained dissemination and implementation of relevant policies and guidelines.

The workshop underscored the significant progress in enhancing multi-hazard preparedness and response mechanisms. It highlighted strengths in comprehensive risk analyses, robust coordination structures, effective early warning systems, and implementing mitigation and anticipatory measures. While gaps and challenges persist, the identified strengths provide a solid foundation for further optimization. This reassures the stakeholders and instills confidence in the progress made. Moreover, this will contribute to minimizing the loss of lives and livelihoods while promoting sustainable and equitable outcomes for both the Rohingya refugee population and the host communities. The workshop result will also serve as a valuable reference in developing the EPR theory of change and work plan for the future.

ACKNOWLEDGEMENTS

APPENDICES