Annex 1 – Template for CREWS Action Presentation Note

Action Title	**Strengthening Enabling Environment for Strengthening Multi Hazard Early Warning Systems (MHEWS) in Belize (supports the delivery of the GCF-CREWS Scale-up proposal in Belize)** (AWS Belize Initiative)
Country(ies)	Belize
Partner Country Entity / Entities	National Meteorological Service of Belize (NMSB) National Emergency Management Organization (NEMO)
Implementing Partner *(if submission by Implementing Partner)*	UN Office for Disaster Risk Reduction (UNDRR) (leading IP) World Meteorological Organization (WMO)
Implementing Partner Requested *(if submission by Partner Country)*	*Select at least 1:* ☐ World Bank/GFDRR ☒ WMO ☒ UNDRR ☐ No preference *[Please note that the requested Implementing Partner is not guaranteed; the Secretariat will review the nature of the Action and determine the most appropriate Implementing Partner, and the Implementing Partner will also need to confirm interest and availability to proceed with the Action Presentation Note in partnership with the Partner Country]*
Action Type	*Select at least 1:* ☐ Continued Assistance ☒ Analyses and Assessments ☐ Advisory Services
Early Warning System Element(s) Supported	*Select at least 1:* ☒ Monitoring, detection, analysis and forecasting of hydro-meteorological hazards providing lead-times for action ☒ Dissemination of timely and authoritative warnings ☒ Preparedness and response plans triggered by warnings and weather and climate predictions ☒ Disaster risk knowledge based on the systematic collection of data and disaster risk assessment *[Optional: provide additional information as relevant]* *MHEWS Governance*
	<u>Key words</u> to describe how it will support the element(s) selected above [max 50 words]: • Enabling environment • Multi Hazard Early Warning Systems (MHEWS) • MHEWS Governance component • Disaster Risk Management Situational Analysis • Country risk profile • Hazard context • Existing vulnerabilities with focus on women and other vulnerable groups • capacities • MHEWS gaps • MHEWS Roadmap • Socio Economic Benefit Analysis • Optimization of resource allocation

Contributions to CREWS Programming Principles and Results Framework	**CREWS Programming Principles addressed:** *Select all relevant:* ☒ People-centered ☒ Gender-responsive ☒ Promotes Coherence ☒ Leverage **CREWS Results Framework Outputs to which the Action is expected to contribute to:** *Select at least one:* ☒ NMSBs' service delivery improved, including the development of long-term service delivery strategies and development plans ☒ Risk information to guide early warning systems and climate and weather services developed and accessible ☐ Info. and comm. tech., including common alerting protocols, strengthened ☐ Preparedness and response plans with operational procedures that outlines early warning dissemination processes strengthened and accessible ☐ Knowledge products and awareness programmes on early warnings developed ☒ Gender-responsive training, capacity building programmes provided **CREWS Programme Indicators to which the Action is expected to contribute to:** *Select at least one:* ☒ Loss of life ☒ Forecasting and warning capacity ☒ Access to early warning ☒ Use of risk information ☒ Capacity to disseminate warnings ☒ Capacity to prepare for and respond to warnings *[Optional: provide additional information as relevant]*
	Key words to describe how it will contribute to the elements selected above [max 150 words]: • Enabling environment • Analysis and assessments • Most vulnerable population with focus on women and other vulnerable groups • Coherence • Integration • Gender • Inclusion • Innovation
Specific Action and Objectives	**Overall Objective**: Strengthening Enabling the Environment for Multi Hazard Early Warning Systems (MHEWS) in Belize **Outcome**: Highest-level political support in Belize for linking CREWS funded activities in the Caribbean region with the Early Warning for All Initiative ensured. Belize's MHEWS will thus be strengthened through the creation of an enabling environment: The proposed outputs and related activities will support the enabling environment for strengthening the four pillars of Multi Hazard Early Warning Systems (MHEWS) in Belize, including the governance component. The preparation of the **Disaster Risk Reduction Situational Analysis**, will provide an overview of the existing risk information in the country, establishing the country risk profile, analyzing the hazard context, existing vulnerabilities, capacities and gaps to determine the priority areas for action and interventions in support of the preparation of the **MHEWS Gap Analysis,** the **MHEWS Roadmap** and the **Socio-Economic Benefit Analysis**. The identification of gaps and priorities in the present MHEWS will

contribute to identifying needs for improving the MHEWS value chain for multiple hazards. Through addressing these gaps (through the MHEWS Roadmap), communities' capacities to mitigate risks, reduce vulnerabilities, and save lives, especially within the most at-risk population will be enhanced. Conducting a cost-benefit analysis with the goal of strengthening MHEWS is further instrumental in optimizing resource allocation and fortifying resilience.

Outputs:

1. **Disaster Risk Reduction Situational Analysis**
   This document will provide an overview of the Situational Analysis of Disaster Risk Reduction efforts in Belize, including capacity and effectiveness of current early warning systems. It will support the design, implementation, and revision of critical national instruments, especially those relevant to the implementation of the Early Warnings for All Initiative. The document will: a) take a stock of risk knowledge and information gaps in Belize; b) establish the country risk profile (analyze the multi-hazard context, existing vulnerabilities, capacities, and gaps); c) examine existing policy, regulatory, programme and investment instruments for DRR; and, d) determine priority areas for action and interventions in support of systemic risk governance.

   Additionally, the document is expected to facilitate exchanges and discussions among different decision-makers and stakeholders aiming to build resilience. Examples of this document, supported by CREWS funding could be found in the following link: https://www.undrr.org/publication/disaster-risk-reduction-caribbean-situational-analysis-2022

2. **MHEWS Gap Analysis**
   Undertake a comprehensive examination and report on the findings for the implementation of the Multi-Hazard Early Warning Systems (MHEWS) Checklist with national and other stakeholders in Belize. The Checklist is constructed based on the four pillars of an effective end-to-end people centred EWS: Pillar 1: Disaster Risk Knowledge; Pillar 2: Detection, Monitoring, Analysis and Forecasting; Pillar 3: Warning Dissemination and Communication; Pillar 4: Preparedness and Response Capabilities; and the interpillar component, better known as MHEWS Governance. The MHEWS Checklist is a practical tool consisting of the major components and actions in the form of a survey which can assist government agencies and relevant stakeholders in developing and evaluating multi-hazard early warning systems (MHEWS). The objective of the survey is to identify gaps in the systems which can then be improved upon. The findings in this document will be validated in a stakeholders' workshop in the framework of this action, highlighting those gaps and making recommendations for improvement. The MHEWS Gap Analysis will follow the same methodology implemented in the framework of the Early Warning for All Initiative for Caribbean countries, as well as that one implemented under the CREWS Caribbean 1.0 project on Strengthening Hydrometeorological and Early Warning Services in the Caribbean. The inclusive early warning checklist would be used to inform the gap analysis ensuring that most at risk stakeholders are involved: https://www.undrr.org/publication/inclusive-early-warning-early-action-checklist-and-implementation-guide

3. **MHEWS Roadmap**
   Based on the recommendations from the MHEWS Gap Analysis Report, stakeholders will be engaged in an articulation exercise to plan the way forward. This participatory approach will be a crucial part of developing the roadmap as it fostered a collaborative approach to strengthening MHEWS in Belize. The MHEWS Roadmap will provide a tangible guide that can be used to shape national investments and local policy with the aim of promoting more effective DRR.

   The MHEW Roadmap will follow the same methodology implemented in the framework

of the Early Warning for All Initiative for Caribbean countries, as well as that one implemented under the CREWS Caribbean 1.0 project on Strengthening Hydrometeorological and Early Warning Services in the Caribbean.

The roadmap will include specific actions that address women`s needs, following the Sendai Gender Action Plan, to access early warning for all as well as other measure to improve the inclusiveness of MHEWS.

4. **Socio Economic Benefit Analysis of investments evaluated for services provided by NMSB and NEMO to target sectors**
   By analyzing the cost-benefits/return on investment associated with the services rendered by NMSB and NEMO, the analysis strives to identify key services, products and related support that contribute significantly to public welfare and safety. Understanding the nuanced interplay between these organizations and the communities they serve is crucial for optimizing the effectiveness of the multi-hazard early warning system. As applicable, the SEB tool kit currently under development with the UK Met Office will be applied. The activity will be conducted in joint collaboration with UK Met Office and if needed, additionally by consultants for the NMSB and NEMO respectively and includes interviews, desktop research and analysis as well as a validation workshop where findings will feed into the development of an MHEWS roadmap. This activity will impact decision making processes, financial planning, risk assessment, stakeholder communication and the strategic priorities and actions taken by the NMSB and NEMO in the mid-term future.

In the execution of these activities, the technical capabilities of NMSB and NEMO will be enhanced through the recruitment of dedicated technical consultants situated at each organization, respectively. These additional resources will also serve as liaison focal points, fostering stronger coordination between the two organizations, as well as with UNDRR and WMO.

All planned activities are aimed at creating an enabling environment for Belize to strengthen its MHEWS. Analysis and assessments that will be conducted with a special focus on the most vulnerable population and women will fully consider all CREWS program indicators and make a substantial contribution to addressing deficiencies in Belize's MHEWS while promoting principles of coherence, integration, gender inclusion and innovation. Consequently, this effort aligns strongly with the CREWS Programming Principles and Results Framework.

The proposed outcomes will contribute to the preparations of an GCF/CREWS Scaling up framework proposal that will be submitted in partnership with the Caribbean Development Bank, and that is under negotiation. Further, identified gaps and needs will be taken into consideration and potentially be covered through national interventions within the recently approved "CREWS Caribbean 2.0" initiative. Generally, activities conducted under this AWS will further serve as case-studies and lessons learned for similar interventions in the region.

Need and Rationale	*[Max. 250 words articulating why the Action is needed and how it contributes to the country's early warning system efforts; if Cont. Ass., how it builds on CREWS Project]* Small Caribbean states like Belize have the most urgent need and justification for climate-related investment for capacity building and adaptation strategies, but face barriers and constraints in accessing related financing. The Caribbean region is extremely vulnerable to a group of recurring weather and climate extremes and hydro-meteorological hazards and as such is among the most vulnerable to climate change. Extreme weather events represent a substantial threat to life, livelihood, property and prosperity. Belize's degree of vulnerability is caused by its relatively small size, complex topologies, reliance on climate sensitive economic activities (e.g., agriculture and tourism) and overwhelming dependence on rainfall for water, amongst other things. In addition to weather and climate extremes, Belize is vulnerable to sea level rise and increased coastal flooding. Belize faces annual losses due to extreme weather events approximately around 4% of its GDP. Besides the frequent hurricanes that became to be expected considering the position of the country in the hurricane belt, in recent years, other natural hazards such as floods and storms have intensified their frequency of occurrence along with the occasional technological hazards. Additionally, 42% of Belize's population lives in poverty and is distributed in large part along the coastlines (i.e., 45%). The densely populated coastlines, along with the low-lying morphological conformation of the territory makes the country very vulnerable to slow on-set threat of sea-level rise. Finally, the Belizean economy is largely based on agriculture, fisheries, and tourism all activities endangered by the raise of the temperature which is expected to be in the range of 2°C – 4°C in Belize. Against this background, Belize has an urgent need to strengthen its MHEWS The proposed activities for this AWS project will serve as initial steps to enhance Belize's capacity of coping with extremer weather and related consequences in the future. The deliverables of this AWS project will also feed into the development of the CREWS/Green Climate Fund (GCF) scale-up project "Strengthening Hydro-Meteorological and Early Warning Services in the Caribbean", which is another rational for the proposed AWS project as an instrument to leverage large-scale resources and broad partnerships.
Alignment	*[Max. 250 words articulating the alignment between the requested Action and existing/ongoing projects, programs, plans and commitments (e.g., EWS projects supported by bilateral or multilateral funds, NAP, NDC, efforts within the Santiago Network)]* On a national level, this AWS project is strongly aligned with the Belize Early Warning Systems Framework policy that is being developed for Cabinet Endorsement. The MHEWS Gap analysis will provide useful information that can further inform this document and thereby strengthen the overall structure under which early warnings are governed in the country. This further supports a significant goal under the Plan Belize Medium Term Development Strategy, which is to reduce the vulnerability of citizens to climate change and weather and climate extremes. The proposed activities are directly linked to the Early Warnings for All Initiative and leverage CREWS funded activities in the Caribbean region, such as the closed CREWS Caribbean 1.0 initiative, the recently initiated CREWS Caribbean 2.0 initiative (USD 7 Million). It strives to ensure highest-level political support in Belize for linking CREWS funded activities in the Caribbean region with the Early Warning for All Initiative. The assessments and analysis included in this proposal will further be the foundation for the previously mentioned development of the CREWS/GCF Scale-Up project in Belize, Guyana and Trinidad and Tobago, led by the Caribbean Development Bank (CDB). Alignment will further be ensured to activities implemented under the Systematic Observations Financing Facility (SOFF) (currently USD 860,694 financing for the readiness phase) and the pilot technical assistance project funded by the CDB (USD 1,225,896) aimed at implementing a multi-hazard impact-based forecasting and early warning system for the

	Belize River Watershed in Belize. UNDRR and WMO, as implementing partners for this AWS project in Belize, together with national partners will ensure adequate exchange, collaboration, and integration of activities in national and regional structures.
Timeframe	*[Projected duration, in months; must be less than 12 months or include justification for longer duration (e.g., if linked to another project that extends beyond 12 months)]]* 12 months
Action Cost *(To be completed by Implementing Partner)*	*[Action amount requested in USD, including Implementing Partner fees]* A total among of USD 250,000 (United States Dollar two-hundred fifty thousand) is requested. For a detailed allocation, see Annex 2.
Attachments	*[Country Endorsement Letter or similar[1] if submission by Implementing Partner]* *[Detailed Activity List to be provided by Implementing Partner (Annex 1)]* *[Detailed Budget to be provided by Implementing Partner (Annex 2)]*

[1] This can include existing Letters or Frameworks in place between the Implementing Partner and Partner Country or Countries in the event that the scope of engagement includes the specific early warning system Action being requested. For Regional Action requests, the Endorsement Letter or similar existing Letter or Framework can originate from relevant regional institutions.

Annex 1

Detailed Activity List to be provided by Implementing Partner

Outcomes	Output	Activities	Indicators	Leading IP
1. Highest-level political support in Belize for linking CREWS funded activities in the Caribbean with the Early Warning for All Initiative ensured	**1.1** Disaster Risk Reduction - Situational Analysis for Belize	Development of MHEWS Disaster Risk Reduction Situational Analysis	Number of Disaster Risk Reduction Situational Analysis published considering the specific needs of those most at risk (e.g. women, older persons, children, persons with disabilities, etc.	NMSB NEMO UNDRR
	1.2 MHEWS Gap Analysis	Development of a MHEWS Draft Gap Analysis	Number of MHEWS Draft Gap-Analysis developed.	NMSB NEMO UNDRR
		Organization of a National Consultative Workshop with relevant stakeholders to discuss and validate the findings of the Gap Analysis (the 1st consultation for actions related to output 1.4 will be also implemented here)	Number of national stakeholders disaggregated by sex, age and disability attended the 1st National Consultative Workshop.	
		Development of a MHEWS Final Gap Analysis	Number of MHEWS Final Gap-Analysis published.	
	1.3 MHEWS Action Plan developed.	Development of a MHEWS Draft Roadmap with specific actions addressing most at risk population (e.g. women, persons with disabilities and other groups)	Number of MHEWS Draft Roadmap developed with specific actions targeting women, persons with disability and other most at-risk population.	NMSB NEMO UNDRR
		Organize a National Consultative Workshop with relevant stakeholders to validate and prioritize the MHEWS Final Roadmap (the presentation of the Situational Analysis, and the Final Cost Benefit Analysis will be also presented here)	Number of national stakeholders attended the 2nd National Consultative Workshop disaggregated by sex, age and disability.	NMSB NEMO UNDRR WMO
		Development of a MHEWS Final Roadmap	Number of MHEWS Final Roadmap developed.	
	1.4	Conduct a Draft Socio-Economic Benefit Analysis of NMSB services	Number of Draft Cost-Benefit Analysis of NMSB services developed.	NMSB

	Cost-Benefits of investments evaluated for services provided by NMSB and NEMO to target sectors	Conduct a Draft Socio-Economic Benefit Analysis of NEMO services	Number of Draft Cost-Benefit Analysis of NEMO services developed.	NEMO
		Development of a Final Join Socio Economic Benefit Analysis of NMSB and NEMO services	Number of Final Join Cost-Benefit Analysis of NMSB and NEMO services.	NMSB NEMO UNDRR WMO

Annex 2

Detailed Budget to be provided by Implementing Partner

Activities	Budget in USD	UNDRR	WMO
Outcome 1: Ensuring the highest-level political support for linking CREWS Caribbean Activities with the Early Warning for All Initiative			
Output 1.1: Disaster Risk Reduction Situational Analysis – Development of the document (desktop analysis, interviews, etc.)	$ 30,000	$ 30,000	$ -
Output 1.2: MHEWS Gap Analysis for Belize – Development of the document (desktop analysis, interviews, national consultation, engaging multiple stakeholders, etc.)	$ 56,399	$ 56,399	$ -
Output 1.3: MHEWS Roadmap for Belize – Development of the document (interviews, national consultation, engaging multiple stakeholders, etc.)	$ 56,400	$ 56,400	$ -
Output 1.4: Socio Economic Benefit Analysis of investments evaluated for services provided by NMSB and NEMO (Lead by WMO) – Development of the document (desktop analysis, interviews, national consultation, engaging multiple stakeholders, etc.)	$ 78,440	$ 10,000	$ 68,440
Total Activity Cost	**$ 221,239**	**$ 152,799**	**$ 68,440**
PSC (13%)	*$ 28,761*	*$ 19,864*	*$ 8,897*
GRAND TOTAL	**$ 250,000**	**$ 172,663**	**$ 77,337**