Annex 2 –CREWS Action Final Report

1. Action Title	Strengthening Enabling Environment for Multi-Hazard Early Warning Systems in Belize (CREWS ASW Belize)	**2. Action Reference**	CREWS/ASW/10/Belize
3. Implementing Partner	UN Office for Disaster Risk Reduction World Meteorological Organization	**4. Other Partners (i.e., Sub-contracted)**	
5. SC Approved Action Duration / End Date	25 August 2025	**6. Actual Action Duration / End Date**	31 March 2026
7. SC Approved Action Budget (in USD; incl. IP fees)	Total: USD 250,000 UNDRR: USD 172,663 WMO: USD 77,337	**8. Actual Action Expenditure (in USD; incl. IP fees)**	Total: USD 250,000 UNDRR: USD 172,663 WMO: USD 77,337
9. Reporting Focal Point(s)	UNDRR: Jennifer Guralnick, Stefanie Dannenmann-Di Palma WMO: Petra Mutic, Stephanie Gallasch, Lina Sjaavik		
10. Action Type	Analyses and Assessments		
11. Early Warning System Element(s) Supported	*[Pulled from Action Presentation Note]* • 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 • MHEWS Governance		
12. SC Approved Action	*[Pulled from Action Presentation Note]* **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.
13. Summary of Actual Action	*Through the support provided by this CREWS ASW, high-level government buy-in of the EW4All / MHEWS approach was deepened and the ensuing EW4All Belize implementation roadmap is currently under review by the Ministry and Cabinet. More specifically, through the ASW support, Belize achieved the following:* **1) Disaster Risk Reduction Situational Analysis** Belize's situation analysis was developed as initially conceived, providing an assessment of institutional arrangements and technical capacities in alignment with key international and regional frameworks, strategies and plans. It provides an overview oof the country's risk profile including its exposure to a wide range of hazards, its socio-economic and environmental vulnerabilities, and the (historical) impacts on key sectors, while assessing institutional frameworks, policies, and capacities. It also identifies major gaps in governance, data, preparedness, and financing, and outlines strategic priorities to strengthen resilience, integrate climate adaptation, and support sustainable development. It prioritizes and analyzes the capacity and effectiveness of EWS and the related national policy and institutional architecture along with governance issues and constraints. Key findings of this document include the following: Belize faces escalating disaster risk driven by frequent and intensifying multiple hazards, particularly hurricanes, floods and drought. These are

	combined with high socio-economic vulnerability, coastal exposure (around 60% of the population), and reliance on climate-sensitive sectors such as tourism and agriculture, resulting in persistent economic losses from hazardous events despite improved response capacity. While disaster risk governance, financing instruments and early warning systems have been strengthened, critical gaps remain in planning, enforcement, local capacity, data integration, and inclusive implementation. In particular, early warning systems are still uneven in coverage, rely partly on informal last mile communication, and lack fully integrated data and standardized, accessible dissemination, limiting their effectiveness in triggering timely early action. Current reforms, including the MHEWS roadmap and advances framed by the EW4All initiative, are improving coordination, forecasting, and institutional alignment, but priorities remain to scale nationwide coverage, modernize communication (e.g. cell broadcast), strengthen disaster risk data systems as the backbone of early and anticipatory action while calling for community early action protocols and AA frameworks, and link warnings to community-level action. Overall, the situation analysis underscores that closing these gaps (particularly in governance, early warning effectiveness, data systems, financing, and community preparedness) is essential to reduce losses, protect development gains, and build inclusive, climate-resilient systems. One of the key conclusions of this document is that to translate gains into sustained resilience, Belize will need to modernize its legal and planning framework, institutionalize risk and loss data systems, and scale inclusive community preparedness and last-mile early warning coverage. Priority actions also include increasing and better tracking DRR spending, strengthening local capacity, investing in nature-based solutions, and improving policy coherence so that climate action, disaster risk reduction and development planning are financed and measured as a single integrated agenda **2) MHEWS Gap Analysis** Belize's MHEWS gap analysis included a lengthy process of consultation and ultimately served as the basis for developing the country's MHEWS / EW4All implementation roadmap. Developed and completed in 2025, the gap analysis fostered institutional alignment by directly informing the nationally approved MHEWS Implementation Roadmap (December 2025), establishing a costed, multi-agency plan with defined roles and targets. It revealed fragmented and underdeveloped EWS, with major gaps in governance, legal mandates and interagency coordination limiting effectiveness. Capacity constraints, inadequate financing, and staff

	shortages were shown to hinder risk assessment, monitoring and forecasting, while the absence of a centralized, interoperable data system means that hazard, exposure and vulnerability information is dispersed across agencies and often in formats that are incompatible, thus limiting real-time sharing, integrated analysis, and evidence-based decision-making for trusted and timely warnings and early action. Warning dissemination was revealed to be inconsistent, with limited use of modern ICT, weak last-mile reach, and poor inclusivity for vulnerable groups. Preparedness was found to be uneven, particularly at community level, and there was no systematic monitoring or evaluation of effectiveness. Ongoing reforms and donor-supported initiatives were shown to provide a strong opportunity to establish a more integrated, inclusive and sustainable MHEWS. **3) MHEWS Implementation Roadmap** In December 2025, the head of the National Emergency Management Organization (NEMO) as country focal point to EW4All approved the national implementation roadmap and at the time of this report is awaiting final consideration by the Minister and Cabinet. The Belize MHEWS Implementation Roadmap 2026–2029 represents a major advancement by translating identified system gaps into a coordinated, costed, and inclusive national action plan aligned with EW4All and the Sendai Framework. It responds to the detailed gap analysis and consultations with key actors and prioritizes investments in risk data, forecasting, dissemination technologies such as cell broadcast, and community preparedness, while strengthening governance, legal frameworks, and interagency coordination. By providing a clear structure for resource allocation, donor alignment, and a proposed monitoring and evaluation framework to track implementation, the roadmap paves the way for scalable, people-centered early warning systems, positioning Belize to significantly improve coverage, early action, and resilience while being better positioned to access other mechanisms and funds for additional financial support for implementation of the roadmap. **4) Socio Economic Benefit Analysis of investments evaluated for services provided by NMSB and NEMO to target sectors** Two complementary Socio-Economic Benefit Analyses (SEB/SEBA) were developed to strengthen the evidence base for Belize's MHEWS investment case: (i) the 2024 SEB for the National Meteorological Service of Belize (NMSB), delivered by the Met Office and London Economics; and (ii) the 2026 SEBA for the National Emergency Management Organization (NEMO). Together, the two analyses show the economic value of the full warning-to-action chain. The NMSB analysis quantified the benefits of

	authoritative weather and climate observations, forecasting, early warnings and aviation services, while the NEMO analysis quantified the downstream coordination, preparedness and response functions that convert warnings into protective action. The NMSB SEB estimated that every BZD 1 invested in the meteorological service generates BZD 3.30–6.80 in economic and social benefits, equivalent to approximately BZD 5.7–11.8 million annually, with a plausible upper range reaching BZD 19.0 million or an 11:1 return. It also underlined that the NMSB operates with only 32 staff while supporting aviation, agriculture, tourism, disaster management, public services and climate policy. The NEMO SEBA estimated a central Benefit-Cost Ratio of 1:6.42, indicating that every BZD 1 invested in national disaster management coordination generates BZD 6.42 in avoided economic losses. Using an Annual Expected Loss baseline of BZD 246 million, the analysis estimates BZD 18.45 million in annual avoided damages and a 20-year Net Present Value of benefits of BZD 229.9 million compared to BZD 35.8 million in costs. An important insight from the NEMO analysis is that technical warning information produces the greatest value when it is connected to coordinated early action. For example, synchronized NEMO/NMSB advice supported preventive shutdowns by Belize Water Services, avoiding an estimated BZD 1.5 million in infrastructure damage in a single high-intensity hydro-meteorological event. Overall, the two SEBAs provide a strong, Belize-specific economic rationale for sustained domestic financing of both NMSB and NEMO, showing that investments must be synchronized across the chain so that improvements in monitoring and forecasting are matched by effective dissemination, coordination, preparedness and response. On 16 March 2026, an online launch of both SEB Analyses was held, with the participation of representatives from the Ministries of Finance and Economic Development. The session presented the key findings and highlighted how the analyses provide an important evidence base for national budget discussions, donor engagement and future resource mobilization to strengthen early warning systems and coordinated disaster risk management in Belize. This ASW allowed for high-level engagement and ownership, as well as improved interinstitutional and intersectoral articulation and coordination, whereby a focus on inclusion and diverse stakeholder engagement was promoted throughout the process.

14. Contributions to CREWS Programming Principles and Results Framework	*[Briefly explain the contributions to relevant CREWS programming principles and outputs and indicators, referring to those selected in the Action Presentation Note]* **1. Contributions to CREWS Programming Principles** The CREWS ASW Belize project contributed significantly to advancing CREWS programming principles, particularly people-centered approaches, gender responsiveness, coherence, and leverage, through a combination of analytical work, inclusive consultation processes, and strategic planning support. The combined processes carried out during this project have enabled Belize to move towards a progressive approach that embraces a people-centred, gender responsive, disability inclusive and coherent governance approach to MHEWS. From the MHEWS stakeholder mapping and gap analysis to the application of the inclusive early warning early action checklist and final implementation roadmap for MHEWS, emphasis was placed on supporting this approach. This was reinforced through national level workshops on gap analysis, inclusive early warning and early action, and implementation roadmap, including with the additional support by other partners such as the World Institute on Disability (WID), as well as complimentary initiatives carried out with UN Women at the local level to strengthen urban resilience through MHEWS, gender equality and disability inclusion. **1.1. People-Centered:** The project prioritized inclusive and participatory processes throughout implementation. National consultations undertaken as part of the MHEWS Gap Analysis and Implementation Roadmap engaged a diverse range of stakeholders, including government agencies, technical institutions, civil society organizations, and representatives of at-risk groups. Emphasis was placed on ensuring that the perspectives of women, persons with disabilities, and vulnerable communities informed the identification of gaps and the prioritization of actions within the roadmap. This contributed to strengthening ownership and ensuring that early warning systems are responsive to the needs of end users. In addition to ensuring a diverse array of stakeholders and population segments were engaged in the processes at the national level, this project allowed for strengthening engagement and buy-in from the community and local level, with a view towards marginalized and at-risk groups and representatives of gender bureaus and of persons with disabilities. In partnership with complementary initiatives such as the Joint SDG Seed Fund project 'Belize Inclusive Resilience in Safe and SMART Spaces' carried out by UNDRR and UN Women, assessments of Belize City's urban resilience capacities were conducted, leading to the development of a local governance plan for DRR and resilience for Belize

	City, prioritizing MHEWS, gender equality and inclusion of persons with disabilities. The local-level assessment in Belize City reinforced the importance of integrating community-identified priorities (such as community risk assessments, gender-responsive and disability-inclusive governance processes, and accessible dissemination of early warnings) into national planning. Through these engagements, vertical integration was strengthened, ensuring that inclusive and representative local priorities were reflected at the national level. This, in turn, fostered two-way communication, information exchange and coordination between national and local levels. An additional key feature of this process was the engagement of the World Institute on Disability (WID), whose expertise on disability inclusion helped shape discussions and reinforce the importance of ensuring that persons with disabilities are not left behind. WID's partnership, alongside national actors such as the Disability Desk, contributed to embedding disability-inclusive priorities into the roadmap, ensuring that the checklist findings translated into actionable steps for resilience. **1.2. Gender-Responsive:** Gender and social inclusion considerations were systematically integrated into project outputs, including through the application of the Inclusive Early Warning Early Action Checklist and dedicated consultation sessions. The MHEWS Implementation Roadmap incorporates specific actions to improve gender-responsive risk information, inclusive communication, and participatory governance mechanisms. Identified gaps such as limited availability of sex-, age-, and disability-disaggregated data and insufficient tailored communication approaches were translated into concrete recommendations and priority actions within the roadmap. A dedicated Inclusive Early Warning Early Action session was held to inform the development of the MHEWS roadmap and extend the findings of the MHEWS Gap Analysis, providing a clear picture of progress and persistent challenges in building a gender-responsive and disability-inclusive MHEWS. Key findings highlighted gaps in legal and policy frameworks, limited systematic data collection disaggregated by gender and disability, and insufficient tailored communication formats. Key recommendations were directly reflected in the MHEWS implementation roadmap including activities such as publishing hazard risk profiles that integrate gender and social variables, developing a social inclusion policy, engaging community-based groups, and establishing advisory committees to co-create risk knowledge strategies. Together, these actions ensure that

	inclusivity is embedded in the roadmap, translating checklist findings into practical steps for resilience. **1.3. Promotes Coherence:** The project strengthened coherence across national institutions and with regional and global frameworks. It aligned ongoing national processes with the EW4All Initiative, the Sendai Framework, and regional CREWS programming (i.e. CREWS Caribbean 2.0), while also ensuring coordination between key national actors such as NEMO and the NMSB, and with complementary initiatives such as the initiative by UNDRR with UN Women. The development of a unified and nationally driven and owned MHEWS Implementation Roadmap has created a solid framework to guide future investments that will in turn reduce fragmentation and enhance inter-agency coordination, efficiency and effectiveness. **1.4. Leverage:** The project successfully leveraged partnerships and complementary initiatives to amplify impact. Collaboration with the UK Met Office enabled the delivery of the Socio-Economic Benefit Analysis (SEB) through in-kind support, allowing for a more strategic (re)allocation of resources. Additionally, it also contributed to and aligned with complementary initiatives supported by partners such as UN Women, the World Institute on Disability, and regional organizations. These partnerships enhanced the scope and sustainability of results while strengthening linkages to future financing opportunities, including CREWS Caribbean 2.0 and the CREWS–GCF scale-up proposal. The NMSB SEB was particularly cost-effective for the project, as it was financed through UK support (Met Office and the UK VCP) rather than through the CREWS ASW budget. This enabled the ASW to benefit from an additional high-quality investment case without placing further pressure on the ASW budget, while ASW resources remained focused on the agreed workplan and coordination. The availability of two linked SEBAs also strengthened leverage, as the combined evidence can be used to support future government budget discussions and resource mobilization with donors, climate funds and development partners. Partnerships with other UN agencies were also leveraged with support from the UN Resident Coordinator's Office (RCO), whereas private sector, academia, NGOs and community organizations were actively involved in this project in addition to different line ministries and key sectors both within and external to Belize. In this way, sustainability was built into the project's implementation, while the groundwork has now been laid for exploring future possibilities with multilateral development partners and climate funds. Furthermore, this has served to also strengthen Belize's national loss and damage tracking and reporting through the Sendai Framework Monitor. Similar partnerships supported

by this project that were leveraged included with UN Women and with the World Institute on Disability (WID).

2. Contributions to CREWS Results Framework

2.1. NMSBs' service delivery improved, including the development of long-term service delivery strategies and development plans:

The project contributed to strengthening the strategic positioning and service delivery of the National Meteorological Service of Belize (NMSB). The Socio-Economic Benefit Analysis (SEB) demonstrates the value of hydrometeorological services, supporting evidence-based decision-making and contributing to increased national budget allocations. Furthermore, the advancement of draft legislation to formalize the NMSB mandate reflects a significant institutional strengthening outcome that will enhance long-term service delivery capacity.

2.2. Risk information to guide early warning systems and climate and weather services developed and accessible:

The project produced a comprehensive Disaster Risk Reduction Situational Analysis and a MHEWS Gap Analysis, which together provide an updated and structured assessment of Belize's risk profile, and early warning and disaster management system gaps. These knowledge products improve the availability and accessibility of risk information and serve as foundational inputs for national planning, investment prioritization, and decision-making processes. The analyses have been validated through national consultations and are actively informing the MHEWS Implementation Roadmap.

Progress towards the application in country of DELTA Resilience will enable the use of loss and damage data in activities related to improved risk knowledge, design of financial protection instruments, early warning systems and impact-based forecasts, among others. It will also support better sex, age and disability disaggregated data. With this in mind, a DELTA Resilience workshop was carried out in February 2026, bringing together experts and stakeholders from eight institutions to present, through a hands-on exercise, the different new features of the system, such as the recording of hazardous events, the use of standardized information to classify hazards, and the recording of impacts and damages, related to both economic and non-economic losses.

2.3. Gender-responsive training, capacity building programmes provided:

Through workshops, consultations, and application of inclusive methodologies, the project strengthened national capacity to integrate gender and inclusion into early warning systems. Stakeholders and government representatives, including the Ministry of Human Development Family Support and Gender Affairs, Ministry of Health and Wellness, were trained on the use of the Inclusive Early Warning Early Action Checklist, the Sendai Framework Gender Action Plan (Sendai GAP) and the importance of gender-responsive DRR. In addition, the project supported capacity development through targeted training opportunities for technical staff, further strengthening institutional capabilities.

3. Contribution to Programme Indicators

3.1. Loss of life:

While the project does not directly measure reductions in loss of life within its timeframe, it contributes indirectly by strengthening the enabling environment for more effective and actionable end-to-end early warning systems. The development of a costed national implementation roadmap and strengthened institutional coordination are expected to contribute to improved early action and reduced disaster impacts over time.

3.2. Forecasting and warning capacity:

The project contributed to enhanced forecasting and warning capacity by strengthening institutional planning and identifying priority investments in monitoring, forecasting, and data systems through the MHEWS Gap Analysis and Implementation Roadmap. Capacity-building activities for NMSB and NEMO staff, as well as from other key sectors, further support improvements in technical capabilities.

3.3. Access to early warning:

Access to early warning is expected to improve as a result of roadmap actions that prioritize modernization of dissemination systems (e.g., cell broadcast) along with redundancy (high and low tech), improved coordination across sectors and agencies, and enhanced inclusivity. The identification of gaps in last-mile communication and inclusivity provides a clear pathway for expanding coverage and accessibility.

3.4. Use of risk information:

The project fostered improvements in the use of disaster risk information for decision-making. The DRR Situational Analysis, Gap Analysis and Implementation Roadmap are already considered to be actively informing national policy processes.

	These outputs will enable enhanced evidence-based planning and prioritization. The development of impact-based forecasts requires having available recent and robust information about exposure and vulnerability characteristics, for which relevant progress has been made in Belize while establishing the baselines for loss and damage assessments. **3.5. Capacity to disseminate warnings:** The project identified critical gaps in dissemination systems and proposed targeted improvements, including strengthening communication technologies, standardizing dissemination protocols, and enhancing coordination among responsible agencies. These priorities are incorporated into the national roadmap, providing a clear basis for future investments. **3.6. Capacity to prepare for and respond to warnings Access to Early Warning:** Preparedness and response capacities are expected to be strengthened through improved coordination, clearer institutional roles, and enhanced planning frameworks established under the roadmap. The participatory processes undertaken during the project are also strengthening stakeholder awareness and trust which in turn fosters readiness to act on warnings.
15. Contributions to Partner Country Plans and Commitments	*[Briefly explain the contributions to relevant existing/ongoing projects, programs, plans and commitments (e.g., EWS projects supported by bilateral or multilateral funds, NAP, NDC), referring to those selected in the Action Presentation Note]* The project made a substantial contribution to strengthening national policy frameworks, strategic planning processes, and international commitments related to DRR and EWS, and their interlinkages. At the national level, it directly supported the development and advancement of Belize's emerging MHEWS Framework, currently under consideration for Cabinet endorsement, and a proposed national coordination mechanism. The MHEWS Gap Analysis and the resulting Implementation Roadmap provided critical technical inputs to this process by identifying governance, institutional, and operational gaps and translating them into prioritized, costed actions. In doing so, the project has strengthened the evidence base underpinning national policy reforms and has supported the establishment of a more coherent governance structure for early warning and action systems. The project also contributes to Belize's reporting through the Sendai Framework Monitor, particularly on Target G, as well as to others such as to the implementation of the Plan Belize Medium-Term Development

	Strategy 2022-2026, particularly its objective to reduce the vulnerability of the population to climate change and disasters. By strengthening multi-hazard risk knowledge, improving coordination across institutions, and supporting inclusive planning processes, the project has enhanced Belize's capacity to integrate disaster risk reduction and early warning systems into ongoing development planning processes. At the sectoral and institutional level, the project has strengthened the strategic planning and investment case for key national institutions, particularly the National Meteorological Service of Belize (NMSB) and NEMO. The Socio-Economic Benefit Analysis (SEB) demonstrated the value of early warning services, making the business case for increased national budget allocations and advancing legislative processes related to the NMSB and NEMO mandates. These outcomes represent a significant shift toward more sustainable domestic financing and institutional strengthening. At the regional and international level, the project has played a catalytic role in advancing Belize's implementation of EW4All and MHEWS, ensuring alignment with its four plus one pillars and strengthening national ownership of the initiative. The Implementation Roadmap serves as a key national instrument to operationalize EW4All commitments and provides a clear framework for coordination among government agencies, development partners, and regional organizations. The project further contributed to the development and alignment of regional and multilateral initiatives, including: • The CREWS Caribbean 2.0 Initiative, where identified gaps and priorities from Belize are being integrated into future programming; • The European Union Caribbean Resilience Programme (EU-CA-RES) by setting the foundations for engaging the private sector in EW4All / MHEWS; • The CREWS–GCF Scale-Up proposal, for which the analyses, roadmap, and stakeholder consultations supported by this project provide foundational evidence base; • The SOFF readiness phase, through strengthened national understanding of observational and data gaps; • Complementary investments supported by the Caribbean Development Bank (CDB), IFRC, the World Bank, the Inter-American Development Bank (IDB) and other partners.

	Importantly, the project also fostered stronger vertical and horizontal coherence across national and local levels and among sectors. By linking technical analyses, inclusive consultation processes, and strategic planning instruments, it has enhanced Belize's ability to coordinate across institutions and align national priorities with global frameworks such as the Sendai Framework. Overall, the CREWS ASW Belize project has served as a critical enabling investment, laying the analytical, institutional, and strategic foundations required for scaling up robust, people-centered and end-to-end early warning systems and is facilitating mobilizing larger-scale financing, while strengthening Belize's alignment with national, regional, and global commitments.
16. Lessons Learned	*[Briefly note important lessons learned from the action, including the factors that hindered or enabled successful action implementation]* The project demonstrates that relatively modest, short-term investments such as those provided through the Accelerated Support Window can produce high strategic value when focused on enabling environments. The combination of analytical work (situational analysis, gap analysis, SEB) and participatory planning (roadmap development) created conditions for significant downstream impacts, including towards greater policy and institutional coherence, increased domestic resource allocation, and the development of larger-scale investment pipelines. A key factor was the deliberate linkage between technical outputs and policy and investment processes. The MHEWS Gap Analysis directly informed the Implementation Roadmap, while the SEB analysis provides concrete evidence for decision-makers. This integration can significantly increase the uptake and use of project outputs. Future interventions might consider that analytical work is systematically connected to decision-making mechanisms from the outset. Strong leadership by national institutions, particularly NEMO and the NMSB, was instrumental in ensuring the relevance, credibility, and uptake of project outputs. The endorsement of the roadmap by NEMO and its progression toward Cabinet consideration highlight the importance of government ownership in translating technical work into policy and action. The use of participatory approaches, including national consultations and the application of the inclusive early warning early action checklist, strengthened both the quality and legitimacy of outputs. Engaging diverse stakeholders helped ensure that inclusivity considerations were integrated into the roadmap and broader planning processes. At the

	same time, the project demonstrates the value of leveraging complementary initiatives to reinforce inclusion. Despite progress, the project highlighted persistent challenges related to data fragmentation, limited interoperability, and insufficient use of digital tools. Addressing these issues will be essential for improving risk knowledge, enabling impact-based forecasting, and strengthening end-to-end early warning systems. While national-level planning advanced significantly, ensuring that early warning systems translate into effective early action at the community level remains an ongoing priority. Future interventions should further strengthen these linkages. A key lesson is that socioeconomic benefit analysis can be more persuasive when it explains the full system rather than one institution only. In Belize, the two SEBAs helped show how upstream meteorological services and downstream emergency coordination reinforce each other and why investment decisions should consider the full end-to-end MHEWS value chain. Another lesson is the value of sequencing and co-financing. UK-funded support for the NMSB SEB created an early evidence base that could be complemented through CREWS ASW support for NEMO, enabling a more complete national investment narrative without duplicating resources. Finally, the project demonstrated that ASW interventions can play a crucial role in preparing countries for larger-scale investments. By generating evidence, identifying priorities, strengthening institutional coordination and estimating financial needs moving forward, the project has positioned Belize towards improved access to additional financing through other mechanisms.
17. Visibility Products and Supporting Documents	*[Insert links to press releases, videos, or communication items and/or social media links, and list and attach to the report any documents providing details on action activities such as review reports, reports of training sessions, technical assessment reports, etc.]* Belize advances toward inclusive, multi-hazard early warning systems; UNDRR (news), 9 May 2025 "Early Warnings for All" workshop aims to enhance emergency response preparations in Belize; San Pedro Sun, 13 May 2025 Early Warnings for All (EW4All) for Belize 2nd National Consultative Workshop; UNDRR (training event)

	Belize Advances National Early Warning Systems; Government of Belize Press Office, 4 September 2025 Belize Advances National Early Warning Systems; Breaking Belize News, 4 September 2025 Belize Advances National Early Warning Systems; The San Pedro Sun, 5 September 2025 UN helps Belize City become Resilient; Amandala, 11 May 2025 Belize Strengthens Disaster Preparedness in Talks With UN Officials; Love FM, 18 February 2026 Belize advances disaster risk management strategy with new work program; Breaking Belize News, 5 April 2026 Value That Protects: Belize – Funding the Future of Forecasting (Video); WMO, 11 December 2025 Belize Shows Why Investing in Early Warnings Pays Off; WMO, 19 June 2026) See annex for more information on deliverables (i.e. achievements listed above)

UNDRR:

This is to certify that the report is accurate.

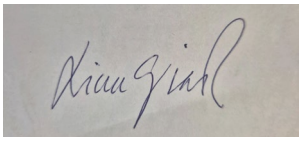
Impl. Partner Representative:	Mario Salgado Galvez
Position Title/Name of Organization:	Programme Management Officer, Officer in Charge
Date and Signature:	30 June 2026 Mario A. Salgado G.

This is to certify that the resources allocated are used for their intended purpose. All parties are in compliance with the financial rules, regulations and procedures of the Implementing Partners.

Impl. Partner Representative:	Sandya Prasad
Position Title/Name of Organization:	Chief of Administration, Resource Planning and Management Section
Date and Signature:	30 June 2026

WMO:

This is to certify that the report is accurate.

Impl. Partner Representative:	Lina Sjaavik
Position Title/Name of Organization:	Head, Project Development and Management Unit
Date and Signature:	1.7.2026 

This is to certify that the resources allocated are used for their intended purpose. All parties are in compliance with the financial rules, regulations and procedures of the Implementing Partners.

Impl. Partner Representative:	Krishnavarahan Adhivarahan
Position Title/Name of Organization:	Chief of Finance
Date and Signature:	2 July 2026

Annex on deliverables:

Disaster Risk Reduction Situational Analysis

This was developed in line with the approach from situation analyses for other CDEMA participating States in 2022 with a view to supporting the Belize Comprehensive Disaster Management (CDM) Country Work Programme (CWP). It is structured around 5 outcomes on institutional arrangements; knowledge management; community mitigation, preparedness and response; operational readiness; and post-disaster recovery and reconstruction. It also sets out the priority hazards and elements of vulnerability, as well as aligning the international and regional frameworks with the national and institutional frameworks with a view to coherence. It offers forth a stakeholder analysis and links it to Belize's MHEWS implementation roadmap and current government architecture.

MHEWS Gap Analysis

This document presents a comprehensive analysis of the current state of multi-hazard early warning systems (MHEWS) in Belize, highlighting gaps, challenges, and recommendations for improvement. It is structured around the Early Warnings for All (EW4All) initiative.

In addition to an inadequate governance structure which does not clearly define the roles and responsibilities of each actor, and which in turn hampers effective coordination among various sectors, other critical gaps related to DRM and MHEWS include:

- Regulatory misalignment;
- Human capacity constraints;
- Insufficient financial resources for DRM;
- Insufficient use of readily available ITC solutions;
- Weak community-level DRM frameworks and plans;
- Poor participation by nonstate actors in the NEMO system;
- Absence of a comprehensive plan for the development and implementation of EWSs;
- A narrow window of inclusivity, especially related to disabilities, women, linguistic minorities, etc.;
- A lack of (an) incentive scheme (s) to stimulate the development and deployment of appropriate MHEWs across all sectors.

MHEWS Implementation Roadmap

Scaling Up Multi-Hazard Early Warning Systems: Implementation roadmap 2026-2029, approved by NEMO in December 2025, for review and approval by Ministry, and onward presentation to Cabinet.

Socio Economic Benefit Analysis of investments evaluated for services provided by NMSB and NEMO to target sectors The SEB work comprises two complementary analyses: one focused on the National Meteorological Service of Belize (NMSB) and one focused on the National Emergency Management Organization (NEMO). The two reports intentionally cover different but connected parts of the early warning value chain, avoiding double counting while showing the combined value of technical warning services and downstream coordination/action.

NMSB SEB (Met Office/London Economics, 2024): This analysis was funded by the Met Office and the UK Voluntary Cooperation Programme (VCP). It estimated that every BZD 1 invested in the NMSB generates BZD 3.30–6.80 in economic and social benefits, equivalent to approximately BZD 5.7–11.8

million annually, with a plausible upper range of BZD 19.0 million or 11:1. The analysis highlights the value of NMSB services for aviation, agriculture, tourism, disaster management, the public and climate-related decision-making.

NEMO SEBA (2026): This analysis quantified the downstream coordination value of preparedness, response and warning-to-action functions. It estimated a central Benefit-Cost Ratio of 1:6.42, annual avoided damages of BZD 18.45 million, and a 20-year Net Present Value of benefits of BZD 229.9 million compared with BZD 35.8 million in costs. It also included a concrete example from Belize Water Services, where coordinated preventive shutdowns supported by NEMO/NMSB advice avoided an estimated BZD 1.5 million in infrastructure damage during a high-intensity hydro-meteorological event.

Overall, the two SEBAs strengthen the investment case for Belize by demonstrating that the highest value is generated when NMSB's authoritative forecasts and warnings are linked to NEMO's coordination, preparedness and response mechanisms. This provides a strong evidence base for domestic financing, future donor engagement and larger-scale investments under EW4All, CREWS Caribbean 2.0 and related initiatives.