**CREWS Action Presentation Note**

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| **Action Title** | ***Analysis and assessments to support the implementation and integration of a Cell -Broadcast- based Emergency Alert Systems in selected Caribbean countries.*** |
| **Country(ies)** | Commonwealth of Dominica, Grenada, St. Kitts and Nevis, Saint Lucia, and St. Vincent and the Grenadines |
| **Partner Country Entity / Entities** | **Caribbean Telecommunication Union (CTU)**<br><br>**Alerting Authorities** (National Disaster Management Offices, National Meteorological Offices, University of West Indies Seismic Research Center, Health Ministries etc.)<br><br>**Other regional institutions:** Caribbean Disaster Emergency Management Agency (CDEMA), the Caribbean Meteorological Organization (CMO).<br><br>**Mobile Network Operators** (Digicel and Cable&Wireless) and GSMA, the global mobile network operators association<br><br>**Caribbean Association of National Telecommunication Organizations** (CANTO).<br><br>**Eastern Caribbean Telecommunications Authority** (ECTEL) |
| **Implementing Partner *(if submission by Implementing Partner)*** | World Bank/GFDRR<br><br>With support from the International Telecommunication Union (ITU). The Climate Risk Early Warning System (CREWS) Steering Committee has extended a formal invitation for the ITU to join the CREWS Fund as an Implementing Partner. The formal accreditation process is currently ongoing and will be concluded in second half of 2025. |
| **Implementing Partner Requested *(if submission by Partner Country)*** | *Select at least 1:*<br><br>☒ World Bank/GFDRR<br><br>☐ WMO<br><br>☐ UNDRR<br><br>☐ No preference<br><br>*[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:*<br><br>☐ Continued Assistance<br><br>☒ Analyses and Assessments |

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| | ☐ Advisory Services<br>☐ *Support to Project Preparation* |
| **Early Warning System Element(s) Supported** | *Select at least 1:*<br>☐ Monitoring, detection, analysis and forecasting of hydro-meteorological hazards providing lead-times for action.<br>☒ Dissemination of timely and authoritative warnings<br>☐ Preparedness and response plans triggered by warnings and weather and climate predictions.<br>☐ Disaster risk knowledge based on the systematic collection of data and disaster risk assessment.<br>*[Optional: provide additional information as relevant]* |
| **Contributions to CREWS Programming Principles and Results Framework** | **CREWS Programming Principles addressed:**<br>*Select all relevant:*<br>☒ People-centered<br>☐ Gender-responsive<br>☒ Promotes Coherence<br>☒ Leverage<br><br>**CREWS Results Framework Outputs to which the Action is expected to contribute to:**<br>*Select at least one:*<br>☐ A country and/or region has developed or strengthened legislative and/or institutional frameworks to support and sustain multi-hazard early warning systems.<br>☐ Multi-hazard needs, gaps and priority assessments, analyses, and related investment plans for early warning systems in a country or region are driven by CREWS financing.<br>☐ Partnerships and cooperation frameworks developed for financing and scaling up support to multi-hazard early warning systems.<br>☐ Risk information and tools generated by countries to enable the delivery of impact-based early warnings. |

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| | ☐ Monitoring, analysis and forecasting of hazards that threaten the country/region are improved and sustained by the countries.<br><br>☒ Warnings are communicated by the countries based on common alerting protocols under agreed standard operational procedures (SOPs)<br><br>☒ Warnings are received, understood and acted upon based on co-produced preparedness and response plans by the countries.<br><br>☐ People of different backgrounds, gender, youth, older persons, people with disability, poor, marginalized, displaced and non-native, as well as related institutions have co-produced climate and weather information products tailored to their needs.<br><br>☒ Private sector is engaged to foster innovation and sustainability in delivery of early warning services.<br><br>**CREWS Programme Indicators to which the Action is expected to contribute to:**<br><br>*Select at least one:*<br><br>☐ Loss of life<br><br>☐ Forecasting and warning capacity<br><br>☒ Access to early warning<br><br>☐ Use of risk information<br><br>☒ Capacity to disseminate warnings.<br><br>☐ Capacity to prepare for and respond to warnings.<br><br>*[Optional: provide additional information as relevant]*<br><br>The World Bank and the International Telecommunications Union (ITU) have put forward in the CREWS pipeline the "Implementation and Integration of a cell-broadcast based Emergency Alert Systems in Caribbean countries" (the ***Project***). This ***Project*** has been included in CREWS pipeline.<br><br>The ***Project***'s main objective is to design and implement an effective impact-based mobile emergency alert communication and dissemination system in the Commonwealth of Dominica, Grenada, Saint Lucia and St. Vincent and the Grenadines, and St. Kitts and Nevis, and develop technical and institutional standards for the regional integration. The development and implementation of a mobile emergency alert system enhances the effectiveness of communication networks that reach at-risk communities. This supports CREWS's overarching objective to substantially reduce disaster-related mortality by 2030 and to significantly expand access to early warnings and risk information in Least Developed Countries (LDCs) and Small Island Developing States (SIDS), in line with Targets A and G of the Sendai Framework for Disaster Risk Reduction. The initiative also contributes to **Pillar 3: Warning Dissemination and** |

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| | **Communication** of the UN Secretary-General's *Early Warnings for All* (EW4ALL) initiative, led by the International Telecommunication Union (ITU), which aims to protect and save vulnerable communities from the worst impacts of disasters. |
| **Specific Action and Objectives** | The ***objective*** of the requested Action is to design and validate a multi-stakeholder Emergency Alert System using Cell Broadcast technology with the concerned authorities from (i) Commonwealth of Dominica, (ii) Grenada, (iii) St. Kitts and Nevis, (iv) Saint Lucia, and (v) St. Vincent and the Grenadines. The aim is to enable real-time dissemination of public safety messages to mobile users across selected Caribbean nations.<br><br>This design will include the technical and institutional ***analyses and assessments*** while also supporting the establishment of institutional agreements and arrangements necessary for its successful execution.<br><br>Establishing a national and regional framework to enable the implementation of the Regional Emergency Alert System (REAS) requires intensive engagement with the five governments, as well as consultations with national stakeholders, regional organizations, and mobile network operators across the sub-region. The Caribbean Telecommunications Union (CTU) in close cooperation with the Eastern Caribbean Telecommunications Authority (ECTEL), will take the lead in coordinating this activity at the regional level.<br><br>The envisaged REAS will enable national alerting authorities to reach the public before and during emergencies with timely, consistent, authoritative, and targeted end-to-end |

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| | advisories and warnings that prompt appropriate action by all. It will be aligned with the Common Alerting Protocol (CAP) standards for message formatting.<br><br>To achieve these objectives, the World Bank, with support from the ITU, will carry out the following analytical and assessment activities:<br><br>**Activity 1 – Preliminary analysis and assessment of institutional and technical regional capacity and system design**<br><br>The World Bank, with the support of the ITU and in consultation with appropriate stakeholders at all relevant levels, will develop the following preliminary analytical studies and assessments:<br><br>• Analysis of specific regulations to support the operation of the alerting system.<br>• Develop preliminary system design and technical specifications.<br>• Conduct institutional analysis and assessment, and propose appropriate institutional arrangements for both the implementation of the Project and the long-term operation of the REAS<br><br>***Activity 2*** **- Multi-stakeholder consultations**<br><br>A multi-stakeholder meeting will be organized to bring together representatives from the five national governments, regional organizations, development partners, technical experts, mobile network operators (MNOs), and other key stakeholders. The event aims to share the results of the assessment and preliminary system design developed in Activity 1, gather inputs and discuss the technical viability of the proposed system, ensure alignment with national and regional priorities, and foster collaboration and consensus for successful implementation.<br><br>The outputs will directly inform the future regional Project that is being proposed to be financed by CREWS with the objective to implement regional emergency alert system. |
| **Need and Rationale** | **Early warning systems (EWS) save lives when disaster strikes.** By providing critical advance notice of impending hazards and crises, they enable individuals to take timely and appropriate action to protect themselves, their families, and their communities. A key component of EWS is the improved dissemination and communication of actionable warnings—an area central to CREWS operations.<br><br>The widespread availability and use of smartphones and mobile devices presents new opportunities for delivering emergency alerts. Cellphone-based alert systems, such as **Cell Broadcast (CB)**, have become essential for disseminating early warnings. In fact, CB has played a pivotal role in EWS in many developed countries for over two decades. However, in the Caribbean—as well as in other Small Island Developing States (SIDS) and Least Developed Countries (LDCs), the lack of an adequate regulatory framework, viable cost-sharing models, and incentives for Mobile Network Operators (MNOs) has hindered the implementation of these critical technologies. |

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| | This Project, which initial implementation steps will be supported by this Action, aims to establish an effective **CB-based emergency alert communication and dissemination system** in the five ECTEL member countries. The system will ensure that timely, consistent, authoritative, and targeted end-to-end warnings reach the public—prompting appropriate actions before and during emergencies.<br><br>At its core, **CB is a one-way technology that allows mobile networks to broadcast messages to mobile handsets simultaneously.** These messages (CBMs) are transmitted from a mobile network's radio cells to thousands—or even millions—of compatible devices within seconds. Unlike SMS, CB does not cause network congestion and is not affected by it.<br><br>In summary, **EWS and CB technologies are indispensable for enhancing disaster preparedness and response in the Caribbean.** They save lives, protect property, and strengthen community resilience, making them essential tools in the region's ongoing efforts to reduce disaster risk. |
| **Alignment** | From 2019 to 2023, the **Strengthening Hydro-Meteorological and Early Warning Services in the Caribbean (CREWS Caribbean)** regional project was implemented by the World Bank, WMO, and UNDRR, in close collaboration with key regional partners. The project aimed to strengthen and streamline both regional and national early warning services and capacities.<br><br>One of the strategic initiatives explored and proposed under CREWS Caribbean was the establishment of an effective, **people-centered, regional impact-based emergency alert communication and dissemination system**. As a foundational step, CREWS Caribbean commissioned a technical study that provided an in-depth analysis of the region's existing alerting capabilities and issued recommendations for sustainably enhancing them—with a particular emphasis on **wireless alerting for mobile phone users**. The current Project builds on the conclusions of this study and aims to implement a **sub-regional emergency alert system based on cell broadcast (CB) technology**.<br><br>In the broader context of **Digital Development**, the World Bank is already active in the region through its collaboration with **ECTEL** and its five member countries under a regional approach. The **Caribbean Digital Transformation Project (CARDTP)**—a US$94 million initiative launched in 2020—seeks to expand access to digital services, technologies, and skills for governments, businesses, and individuals in Dominica, Grenada, Saint Lucia, and Saint Vincent and the Grenadines. The proposed Project, supported through this Action, falls under the **emergency communications component** of CARDTP. |
| **Timeframe** | 12 months |

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| **Action Cost *(To be completed by Implementing*** | *250,000 US$* |
| **Attachments** | *Endorsement Letter* |

**Detailed Activity List**

| Task | Months | | | | | | | | | | | |
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| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **Activity 1 - Develop preliminary analysis and assessment to support the implementation of the Project.** | | | | | | | | | | | | |
| ***Analysis*** of specific regulations to support the operation of the alerting system. | | | | | | | X | X | X | X | | |
| Preliminary system design and technical specifications. | | | | | X | X | X | X | X | | | |
| Institutional ***analysis and assessment*** and propose institutional arrangements. | | | X | X | X | X | | | | | | |
| **Activity 2: Organize a Project consultation workshop** | | | | | | | | | | | | |
| Pre-Workshop Activities (Preparation Phase) | X | X | X | X | | | | | | | | |
| Multi stakeholder workshop | | | | | X | | | | | | | |
| Documentation and Reporting | | | | | | X | | | | | | |
| Follow-Up and Engagement | | | | | | | X | X | X | X | | |

**Detailed estimated budget**

| **Activity** | **Amount in US$** |
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| **Activity 1:** | |
| *Staff time* | 23,000 |
| *Consultancy services* | 60,000 |
| *Travel* | 20,000 |
| *Miscellaneous* | 3,650 |
| **Activity 2:** | |
| *Staff time* | 23,000 |
| *Consultancy services* | 24,000 |
| *Workshop hospitality expenses* | 35,000 |
| *Travel* | 35,000 |
| *Miscellaneous* | 3,650 |
| **Total activities 1 and 2** | **227,300** |
| **IP fee (10%)** | **22,700** |
| **Total grant amount request** | **250,000** |