



WORLD  
METEOROLOGICAL  
ORGANIZATION



## Terms of Reference / Description of Duties

**Assignment Title:** Developing custom indicators to report on Multi-Hazard Early Warning Systems effectiveness in the Sendai Framework Monitor

**Project:** Measuring Effectiveness of Early Warning Systems through Sendai Framework Monitoring

**Duty Station:** Home-based (ca. 100 days), with the possibility of a finalization period of a few days in WMO Secretariat, Geneva, if practically feasible.

**Type of Contract:** Special Service Agreement (SSA) / Individual Contractor

**Expected Starting Date:** 18 December 2020

**Duration of Initial Contract:** 100 Working Days over a period of five months (deliverable based)

**Background:** The Climate Risk and Early Warning Systems (CREWS) initiative aims to significantly increase the capacity of Least Developed Countries (LDCs) and Small Island Developing States (SIDS) to generate and communicate effective, impact-based, multi-hazard and gender-informed early warnings and risk information within strengthened national multi-hazard early warning systems (MHEWS). CREWS is a partnership of the World Meteorological Organization (WMO), the World Bank Group and its Global Facility for Disaster Reduction and Recovery (GFDRR), and the United Nations Office for Disaster Risk Reduction (UNDRR). The CREWS Initiative is currently funded by the Governments of Australia, France, Germany, Luxemburg, Switzerland, Netherlands, and the United Kingdom.

The CREWS Steering Committee at its 11th meeting approved the project "Measuring Effectiveness of Early Warning Systems through Sendai Framework Monitoring" with the United Nations Office for Disaster Risk Reduction (UNDRR) as lead Implementing Partner and the World Meteorological Organization (WMO) as an additional implementing partner. The project aims to: (i) strengthen the contribution of (multi-hazard) EWS to the reduction in risks and losses through enhanced capacities to measure and monitor EWS effectiveness and incorporate feedback/learning (lessons learnt) into the EWS value chain; and (ii) to better support LDCs and SIDS in measuring the effectiveness of their (multi-hazard) early warning systems, in particular through the reporting on the Sendai Framework for Disaster Risk reduction Targets, and improving them over time.

An Experts group, involving a variety of partners, will serve as the advisory body and quality assurance mechanism to develop, validate the methodology and indicators and provide recommendations on measuring the effectiveness of early warning system in LDCs and SIDS to strengthen the monitoring of Target G of the Sendai Framework.

The Experts group will also review the deliverables provided under this consultancy and advise on the refinement and streamlining of the metrics and indicators proposed to measure progress on early warning systems for development partners and the CREWS initiative.

Other related initiatives include:

- In the Sendai Framework Monitor, Member States report on the progress made related to the indicators against global Target G "Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030";

- The CREWS initiative is developing, core programme indicators to monitor the progress and outcomes of the initiative;
- WMO is developing the early warning indicators of its country profile database collecting information from its members;
- WMO is further developing a hydromet diagnostic tool, part of the Hydromet Alliance for Development that includes indicators for early warning measurement;
- The REAP initiative has established an Early Warning Working Group.

**Purpose of the assignment:** The overall purpose of the consultancy is to develop custom indicators to measure the effectiveness of national early warning systems that countries may use for their own benefit and report on through the [Sendai Framework Monitor](#) (SFM).

**Description of duties:** Under the overall guidance of the Experts Group and the Project Support Group and direct supervision of the Chief, Disaster Risk Reduction and Public Services Branch (C/DPS) and in close cooperation with the Scientific Officer (SO/MHEWS), the incumbent will carry out the following tasks (home-based):

1. Prepare an Inception Report for the consultancy, including a work plan, identifying desk reviews and interviews as appropriate, proposed approach for the development of the indicators and methodologies.
2. Compile and document good practices of MHEWS monitoring and evaluation (M&E); and analyse the same based on a set of criteria agreed by the Experts Group.
3. Conduct desk reviews and hold remote interviews with representatives of services of WMO Members, including but not limited to NMHSs, representatives from National Disaster Management Offices and DRR-related Intergovernmental Organizations, statisticians, and other relevant stakeholders (interview list agreed in consultation with the Experts Group and Project Support Group).
4. Develop recommendations on M&E indicators to reflect on all four pillars of MHEWS, risk knowledge, detection, monitoring and forecasting of the hazards and possible consequences, warning dissemination and communication, preparedness and response.<sup>1</sup>
5. Develop the associated methodologies to compute these indicators in line with the requirements for custom indicators in the Sendai Framework Monitor.
6. **Expected deliverables and timeframe:** The consultancy will have a duration 100 working days over five months.

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<sup>1</sup> See WMO 2018: Multi-Hazard Early Warning Systems – A Checklist. Outcome of the First Multi-Hazard Early Warning Conference, 22-23 May 2017, Cancún, Mexico. Available at [https://library.wmo.int/doc\\_num.php?explnum\\_id=4463](https://library.wmo.int/doc_num.php?explnum_id=4463).

<b>Deliverable</b>	<b>Estimated Duration</b>	<b>Target Due Date</b>
Deliverable 1: Inception Report, including a work plan for the full consultancy	3 Working Days	8 January 2021 (T0 + 1 month)
Deliverable 2: Progress report listing the cases reviewed and documented and initial list of proposed indicators	35 Working Days	26 February 2021 T0+2 months
Deliverable 3: Draft report including documented cases and the proposed indicators and the associated methodologies for their computation.	45 Working Days	30 -April 2021 (T0+4months)
Deliverable 4 : Final consolidated document after its review by the Experts Group	10 working days	31 May 2021 (T0+5 months)

### **Qualifications:**

#### *Education*

- Advanced university degree in Meteorology, Environment, Disaster Risk Management, Emergency Response, Social Sciences, or other closely related disciplines. A relevant combination of academic qualifications and experience is an advantage.

#### *Experience*

##### *Required*

- At least 10 years in the management, monitoring and evaluation of multi-hazard early warning systems.
- Demonstrated experience in data collection and analysis, conducting consultations and assessments in the field of disaster risk reduction within international capacity development and technical cooperation projects.
- Demonstrated experience in early warning assessments in the context of the provision and delivery of weather, water and climate information and products in regional, national and sub-national settings.

##### *Desired*

- Working experience with international organizations and United Nations (UN) agencies is an asset.
- Experience working in LDCs and SIDs is an advantage.

#### *Languages*

- Fluency in English is essential.
- Excellent oral and written communication skills.

#### *Organizational fit*

- Ability to work in diverse multicultural environments with sensitivity to local contexts.
- Ability to communicate effectively with and relate to people of different cultures.
- Resourcefulness, initiative, and maturity of judgment.
- Demonstrated analytical skills, ability to assess complex situations.
- Succinctly and clearly distil critical issues and to draw practical conclusions.
- Embody core values of the UN: Integrity, professionalism, and respect for diversity.

**Payment:** The consultant will be paid on a lump sum basis under the following instalments:

- First Payment: 10% of the total lump sum amount will be paid upon satisfactory submission and acceptance of Deliverable 1 by 8 January 2021.

- Second Payment: 35% of the total lump sum amount will be made upon satisfactory submission and acceptance of Deliverable 2 by 26 February 2021.
- Third Payment: 40% of the total lump sum amount will be made upon satisfactory submission and acceptance of Deliverable 3 by 30 April 2021
- Final Payment: 15% of the total lump sum amount will be made upon satisfactory submission and acceptance of Deliverable 4, by 31 May 2021.

**Contacts at the WMO Secretariat:** If you are interested in applying, kindly send your CV to Mr Cyrille Honoré, Chief, Disaster Risk Reduction and Public Services Branch, [chonore@wmo.int](mailto:chonore@wmo.int) , no later than 27 November 2020, with copy to Ms Erica Allis, Scientific Officer, [eallis@wmo.int](mailto:eallis@wmo.int)