

CREWS Programme Indicators – status December 2019

1. CREWS measures its progress against the Monitoring Framework contained in the *CREWS Operational Procedures Note No2 Monitoring and Evaluation*. The metrics against which progress is measured are drawn from the indicators developed in each project against the CREWS outputs.
2. Higher level impacts i.e. partially attributable to CREWS investments, are measured across the CREWS portfolio of projects, using indicators adopted by Member States for relevant global goals and targets with which countries measure their national progress. Specifically, indicators for targets used by countries to measure life and economic loss to disasters and access to early warning systems and risk information (Sendai Framework targets, A, B and G and related SDGs).
3. Currently, the number of LDCs and SIDS report on Sendai targets G is low (23% of LDCs and 3% of SIDS)¹. While these figures are expected to increase in the future, metrics are required, in the meantime, to show progress across the CREWS programme.
4. At its 8th Meeting, the CREWS Steering Committee requested the Secretariat, in consultation with the Implementing Partners, to propose a set of programme indicators to be used to reflect the progress of the initiative.
5. Annex 1 provides a tentative list of CREWS programme indicators. It is expected, once these are validated, to become the metrics against which CREWS will regularly measure progress (with a 2015 baseline and subsequent trends where applicable) of its overall portfolio and, more broadly, early warning capacity of LDCs and SIDS.
6. The proposed CREWS programme indicators need to align with and contribute to the efforts by LDCs and SIDS to monitor relevant SDGs, Sendai Targets and progress on early warning under the UNFCCC Paris Agreements.
7. In order to ensure relevance and measurability, the proposed set of generic indicators also need to align with and draw from:
 - (i) CREWS Monitoring Framework Outputs;
 - (ii) World Bank Core Sector Indicators;
 - (iii) GFDRR M&E Framework and Indicators;
 - (iv) WMO's Strategic and Operating Plan Results Framework;
 - (v) Information available in WMO's Country Profile Data Base (CPDB, cpdb.wmo.int), World Bank Open Dataset (data.worldbank.org) and UNDRR Sendai Monitor (sendaimonitor.unisdr.org/) and countries database (unisdr.org/partners/countries);
 - (vi) WMO Strategy for Service delivery (WMO, N^o 1129) and its Service Delivery Progress Model;
 - (vii) Early Warning Systems Checklist (WMO, 2018);
 - (viii) Result frameworks of World Bank and other development partners hydromet investments;
 - (ix) CREWS draft Consultation Document on Measuring Early Warning Access and Effectiveness (CREWS/SC.5/infdoc.4)
8. This process builds on an extensive body of literature on how to measure early warning systems for each of its four components², across its value chain and, in particular, how early warnings are

¹ UNDRR, 2019.

received, perceived, understood, acted upon by users and feedback provided to the designated warning authority.

9. A number of global and regional reviews of early warning systems have been carried out by different entities. A compilation of these is available on the CREWS website³.

10. Following the 10th Meeting of the CREWS Steering Committee, it is suggested that a validation process be carried out for the proposed programme indicators, through expert reviews and an iterative testing through their application for measuring progress across the CREWS portfolio of projects for one calendar year. The Steering Committee will be regularly update on progress.

² (i) Risk-informed system design; (ii) Monitoring and warning services; (iii) Communication and dissemination; (iv) Public access and ability to respond to the warnings.

³ <https://www.crews-initiative.org/en/impacts>

ANNEX 1

DRAFT Programme indicators against which CREWS will measure progress across its portfolio of projects in LDCs and SIDS				
Metrics	Indicators	Linked to	Source of information	Remarks
1. Loss of life	# of deaths and missing persons in LDCs and SIDS attributed to hydrometeorological events, per 100'000 population	- CREWS Objective - Sendai Target A	UNDRR Sendai Monitor	This indicator is a subset of Sendai Target 1 (covering LDCs and SIDS and loss of life due to hydrometeorological events).
2. Forecasting and warning capacity	# of hazards (which pose a risk to the country) for which forecasting and warning capacity is available in the country	- CREWS Output N° 1	NMHSs through CREWS Implementing Partners	Indicator allows measuring countries (or region) for which forecast products have been made available for hazards such as flash floods, coastal inundation etc... It does not inform on the accuracy and timeliness of the forecasts and warnings.
	'Level of Service' category of the NMHS in LDCs and SIDS	- CREWS Output N° 1	WMO	WMO categorizes NMHSs Level of Service from 1 – basic, to 4 – Advanced. https://www.wmo.int/pages/prog/dra/documents/CDS_IP-Annex5.doc This information is not currently available across LDCs and SIDS.
3. Access to early warning	# of people living in areas covered by forecasts and warnings for a given hazard	- Sendai Target G - World Bank and GFDRR indicators	NMHSs through CREWS Implementing Partners	Indicator providing the population living in the areas covered by a forecast. Ideally this indicator would measure the # of people with access to the warnings (and who took action on the warnings). This information is currently only available on a survey basis.
4. Use of risk information	# of LDCs and SIDS with risk information generated to inform the early warning system	- CREWS Output N° 2	National institutions through CREWS Implementing Partners	This indicator identifies data and information generated by the project regarding the physical monitoring of the hazards and the socio-economic vulnerability of populations at risk.
5. Capacity	# of LDCs and SIDS communication	- CREWS Output	WMO	WMO monitors countries that operationalize the

to disseminate warnings	warnings through common alerting procedures	N° 3 - WMO's Strategic and Operating Plan Results Framework		Common Alerting Protocol (CAP) with registered alerting authorities.
6. Capacity to prepare for and respond to warnings	# of LDCs and SIDS using standard operating procedures to issue warnings for forecasted hazards	- CREWS Output N° 4 - Sendai Target G	National institutions through CREWS Implementing Partners	This indicator does not reflect the effectiveness of the SOPs or if they are regularly applied and tested. Will benefit from cooperation and further development with partners working on early action.

Additional proposed metrics related to the CREWS initiative:

- # of LDCs and SIDS with CREWS projects
- # of LDCs and SIDS part of CREWS regional projects
- # of Contributing Partners to the CREWS Trust Fund
- # of international institutions that provide advisory service through CREWS projects
- # of practitioners provide with trainings on the four elements of an effective early warning
- # of projects which apply the *CREWS Operational Procedure Note N° 3 for Gender-Sensitive Programming* to the whole project cycle (programming, operations, M&E)
- USD leveraged in the CREWS country projects⁴
- # of LDCs and SIDS that report against the Sendai Targets

⁴ Leveraged funds can be: (i) resources co-financed by the CREWS funds; and (ii) financing in the country/region programmatically aligned with CREWS funds.