Call for Good Practices and Lessons Learned on Early Warning Systems with focus on Multi-hazards

I. Introduction

In 2015, Member States adopted the Sendai Framework for Disaster Risk Reduction 2015-2030 as a way to reduce the human and economic loss caused by disasters and avoid the creation of new risks. To help implement this Sendai Framework, the UN Office for Disaster Risk Reduction (UNDRR) has launched the Words into Action (WiA) Guides as a series of guidelines, based on global expertise, communities of practice, and networks of Disaster Risk Reduction (DRR) practitioners. The guidelines provide practical, specific advice on implementing a people-centered approach to DRR in line with the Sendai Framework.

Contributing to the WiA series, UNDRR, the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) from the United Nations Office for Outer Space Affairs (UNOOSA) and the World Meteorological Organization (WMO) will lead the elaboration of a new WiA guide that ***will provide practical guidance to the implementation of the early warning system component of the Sendai Framework Target G***: *Substantially increase the availability of and access to multi-hazard early warning systems (MHEWS) and disaster risk information and assessments to people by 2030.* The WiA will guide governments, stakeholders and partners on how to institutionalize, operate, monitor, and strengthen people-centred inclusive approaches for multi-hazard early warning systems which enable early action.

Globally, there is a stronger recognition that MHEWS are not only about technology but ultimately about governance, human and social dimensions, such as accessibility and inclusiveness, as reflected in the four key elements of MHEWS advanced by the International Network on MHEWS[1]. With multi-level inclusive governance as the overarching framework, the IN-MHEWS framework refers to four key elements for people-centred MHEWS: i. Disaster risk knowledge, ii. Hazard detection, monitoring and forecasting, iii. Warning dissemination and communication; and, iv. Preparedness and response capabilities. Based on this framework, the WiA guide will not only focus on the actions covered within priorities on *Preparedness for Effective Response* under Sendai Priority 4, but also encompass the centrality of understanding risks as the basis to monitor hazards, assess vulnerabilities and forecast potential impacts. Furthermore, disaster risk governance in all its aspects of policies, strategies, legal and regulatory mechanism and all-of-society accessible and inclusive approaches are considered the enabler for effective Early Warning Systems (EWS) and should be an integral part of any climate and disaster risk management system[2]. Investment and financing in technologies, forecast-based financing and shock responsive social protection, and capacities for managing risks at all sectors and levels are required to ensure implementation of any MHEWS that enables *action* to minimize impact of events and contribute to reduce exposure and vulnerabilities.

II. The Call for Good Practices on MHEWS

This call for Good Practices aims at collecting experiences, lessons learned and key aspects of existing MHEWS. Good Practices on MHEWS and Early Action will be an integral part of the WiA guide providing practical examples that can inform the design of new or strengthening of existing EWS.

More specifically, the global call will allow compiling different experiences, in terms of policy changes, research advances and practices that highlight key areas and components of MHEWS, illustrating challenges and solutions in policy and practice. While only a selected number of experiences can be considered for inclusion into the WiA guide, submissions may be used in the context of UNDRR's advocacy campaign around Sendai Framework Target G throughout the year 2022. By submitting your

good practice, you agree that the information can be used in the context of the WiA and for advocacy campaigns. UNDRR may reach out to request further information regarding selected good practices.

This call is looking to highlight the following categories below as a way to facilitate the access to global expertise on the implementation of inclusive people-centred MHEWS, which enable Early Action as a central component for reducing risks. Early Action, also known as Anticipatory Action or Forecast-Based Action, allows let taking action steps to protect people and assets, based on Early Warning or forecasts, before a disaster strikes.

III. Main Categories for the Practices

Submissions can provide information about the following 5 key categories, elements, and components of MHEWS, which include the overarching '*governance'* framework for EWS.

The list bellow provides some generic ideas as references included in the different categories as references but submissions may cover additional relevant aspects as well.

i. Overarching Governance for MHEWS

a. Policy, legal and operational frameworks for MHEWS.
b. Risk informed social protection.
c. Using evidence for driving policy changes and investments.
d. Meaningful engagement and leadership of local actors in EWS.
e. Gender-responsive and gender transformative early warning systems governance and operations.
f. Trans boundary mechanisms and governance for early warning.
g. Global and regional collaboration for data sharing, governance & definition of inter institutional roles and responsibilities.
h. Media and social media roles in Early Warning - Early action (EW-EA).
i. Science-policy-action for evidence-based, inclusive and people-centred system.
j. Measuring effectiveness and social and economic benefits of MHEWS in reducing disaster impact, reducing vulnerabilities and exposure.
k. Community led early warning systems.

ii. Disaster Risk Knowledge

a. Assessing interconnected and cascading hazards and disaster impacts.
b. Local and traditional knowledge and practices on EW-EA.
c. People-centered EWS, which consider multidimensional vulnerabilities and systemic risks.
d. Drivers of exclusion, inequalities in access to information and resources for EA.

iii. Hazard detection, monitoring and forecasting,

a. Impact based forecasting.
b. Integration of hazard-specific monitoring and forecasting system on a MHEWS.
c. Advantages of multi-hazard early warning systems: the use of a common MHEWS framework supporting economies of scale, reinforcing sustainability of the system and enabling a learning culture.

iv. Warning dissemination and communication;

a. 2-way communication and feedback mechanisms.
b. Warning delivery channels and messages are tailored to reach all type of users, match their information needs and enable them to protective action.
c. Innovative channels for warning dissemination and communication.

v. Preparedness and response capabilities.

a. MHEWS addressing multiple converging hazards, including biological ones, and cascading impacts.
b. Anticipatory action frameworks and response mechanisms that address multiple compounding and cascading risk and their impacts.
c. Science, technology partners and private sector linking EW-EA.
d. Operational frameworks for anticipatory action.
e. Participation of at-risks marginalized and vulnerable groups on EWS design, maintenance and implementation.

IV. How to engage

- Submissions from all regions are welcome. For the purpose of this call, priority may be given to experiences from most hazards prone regions including SIDS.
- Good practices contributing to or integrated to local or national warning systems will be given priority.
- Submissions in English, Spanish and French will be taken into consideration.
- The Call for submissions will be open from 16 December 2021 until 28 February 2022. For enquires and questions you can contact organizers by this email: wiagoodpractices@gmail.com
- All practices should include at least 1 high-resolution picture, map, info graphics or diagram providing a brief capture and credit information.
- The online **submission** form, which requests specified information about the good practice, should be filled and submitted no later than **28 February 2022**.

V. Sharing a Good Practice

Summary Box (250 words maximum)
Title of good practice:
Submitting institution/agency/organization:
Other partners involved:
Region/s: (drop down options in the online form)
Country/ies:
How does the initiative contribute to the existing local/national EWS?
In case applicable, which steps have you taken to hand over this practice to local/national governments?
Website or reference, if applicable:
Contact: Full name and email

Good Practice Details	
1. Select the category developed in your good practice: i. Overarching governance for MHEWS ii. Disaster Risk Knowledge iii. Hazard detection, monitoring and forecasting iv. Warning dissemination and communication v. Preparedness and response capabilities	
2. Hazard cluster and key hazards involved *(in bullets)*	**3. Key sectors involved** *(in bullets)*

☐ Meteorological and hydrological ☐ Extraterrestrial hazards ☐ Geohazards ☐ Environmental ☐ Chemical ☐ Biological ☐ Technological ☐ Societal Based on the selected hazard cluster, please add the hazard(s) using the list proposed in the ***Hazard definition and classification review*** (see Annex 6). Further guidance on hazard types is available in the ***Hazard Information Profiles***.	Mention the key sector(s) involved in the good practice. These may include food sector, health, infrastructure, education, economic, or ecological, academia, etc.

4. **Brief description of the setting** *(400 words maximum)*

Please, describe the context of the good practice

- ✓ Describe the geographic area
- ✓ Hazard/hazards (threats presents in the area)
- ✓ Vulnerabilities (political and socio-economic factors)
- ✓ Exposure (description of population at risk)
- ✓ Capacities (available resources: social, economic, livelihood, asset, etc.)

5. **Description of the MHEWS practice.** Please, describe briefly your practice

5.1. Operation of the MHEWS. Describe briefly how the 4 components of the system work in your practice, in addition to the overarching governance component. *(300 words maximum)*

5.2. Summary of the good practice. Select your category and describe the good practice *(500 words maximum)*

- ❖ **Overarching governance for MHEWS**

Definition of inter institutional roles
Explain organizational and decision-making processes in place and operational
Please provide any supplementary relevant information.

- ❖ **Disaster Risk Knowledge**

Please include information about mechanisms to identify hazards and related threats. Mechanisms to asses exposure, vulnerability and capacities. Mechanisms to consolidate risk information, description of systemic risks, etc.
Please provide any supplementary relevant information.

- ❖ **Detection, monitoring, analysis and forecasting of the hazards**

Please, explain the monitoring system in place, the forecasting and warning services and the institutional mechanisms developed.
Please provide any supplementary relevant information.

- ❖ **Warning Dissemination and communication**

Please, describe the communication systems and equipment in place and state if your practice includes impact-based early warnings communication by target groups. Has your MHEWS triggered prompt action?
Please provide any supplementary relevant information.

❖ **Preparedness and response capabilities**

Explain how disaster preparedness measures and response plans were developed and operational. Comment public awareness and education campaigns conducted and describe mechanisms to test and evaluate public awareness and response.
Please provide any supplementary relevant information.

6. **Role of key stakeholders and partners** *(250 words maximum, in bullets)*

Briefly identify the key stakeholders and partners (international, national, regional and local) involved in your MHEWS along with the key roles *(in bullets)*, which they fulfill in respective MHEWS's component.

7. **Key gaps and challenges in the implementation of your practice, analyzing each MHEWS's component** *(300 words maximum, in bullets)*

8. **Lessons learned and elements that can be replicable of your practice** *(300 words maximum, in bullets)*

9. **Has your MHEWS been tested in a disaster?**

Yes / No

In case yes, please share:

A brief narrative providing details on the communication channels implemented, key sectors activated, early actions taken, if changes were made to the system after the event and / or how successful/unsuccessful the MHEWS was.

10. **Has your MHEWS a focus on gender equality and/or women's empowerment / leadership**

Yes / No

In case yes, please indicate *(250 words maximum)**:***

How is the MHEWS focused on gender equality and/or women's empowerment/leadership?

[1] Launched at the Third World Conference on Disaster Risk Reduction in Sendai, Japan, the International Network for Multi-Hazard Early Warning Systems (IN-MHEWS) is a multi-stakeholder partnership aimed at facilitating the sharing of expertise and good practice on strengthening MHEWS as an integral component of national strategies for disaster risk reduction, climate change adaptation, and building resilience.

[2] Health emergency and disaster risk management framework: https://apps.who.int/iris/handle/10665/326106