



INCLUSIVE EARLY WARNING EARLY ACTION

CHECKLIST AND IMPLEMENTATION GUIDE

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities or concerning the delimitations of its frontiers or boundaries. The designations of country groups in the text and the tables are intended solely for statistical or analytical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of the names of firms and commercial products does not imply the endorsement of the United Nations. Some rights reserved.

The use of the UNDRR logo is not permitted. If a translation of this work is created, it must include the following disclaimer along with the required citation below: "This translation was not created by the United Nations Office for Disaster Risk Reduction (UNDRR). UNDRR is not responsible for the content or accuracy of this translation. The original English edition shall be the authoritative edition."

Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures, or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder.

UNDRR information products are available for non-commercial use. Requests for commercial use, rights and licensing should be submitted via: <https://www.undrr.org/contact-us>

This publication may be freely quoted but acknowledgement of the source is requested. Citation: United Nations Office for Disaster Risk Reduction. Inclusive Early Warning Early Action: Checklist and Implementation Guide. Geneva: 2023.

Cover: @UNDRR

© 2023 UNITED NATIONS OFFICE FOR DISASTER RISK REDUCTION

For additional information, please contact:

United Nations Office for Disaster Risk Reduction (UNDRR)

7bis Avenue de la Paix, CH1211 Geneva 2, Switzerland, Tel: +41 22 917 89 08

Acknowledgement

This checklist and implementation guide were developed by the United Nations Office for Disaster Risk Reduction (UNDRR) in collaboration with the Warning Research Center of the University College London under the Climate Risk Early Warning Systems (CREWS) Pacific project.

UNDRR would like to acknowledge its major core donors for their support to this publication: Sweden, Japan, Norway, Switzerland and Finland. However, the views expressed in this publication are the author's alone and are not necessarily the views of donors.

The authors, who include Ilan Kelman and Carina Fearnley (University College London), acknowledge the invaluable contributions from the following subject-matter experts in shaping this work: Ana Degei, Terry Atalifo, Stephen Meke, Sakeasi Rabitu and Bipen Prakash (Fiji Meteorological Services), Fiji National Disaster Management Office, Pacific Disability Forum, Jian Vun and Dr. Linda Anderson-Berry (World Bank).

INCLUSIVE EARLY WARNING EARLY ACTION

CHECKLIST AND IMPLEMENTATION GUIDE



TABLE OF CONTENTS

Checklist and Implementation Guide for Inclusive Early Warning Early Action	5
Key Concepts and Definitions	6

01

Disaster Risk Knowledge	8
CHECKLIST FOR INCLUSIVE EARLY WARNING EARLY ACTION	8
IMPLEMENTATION GUIDE FOR GENDER- AND DISABILITY-INCLUSIVE WARNINGS	12

02

Detection, Observation, Monitoring, Analysis, and Forecasting	19
CHECKLIST FOR INCLUSIVE EARLY WARNING EARLY ACTION	19
IMPLEMENTATION GUIDE FOR GENDER- AND DISABILITY-INCLUSIVE WARNINGS	21

03

Dissemination and Communication	27
CHECKLIST FOR INCLUSIVE EARLY WARNING EARLY ACTION	27
IMPLEMENTATION GUIDE FOR GENDER- AND DISABILITY-INCLUSIVE WARNINGS	30

04

Preparedness and Response	34
CHECKLIST FOR INCLUSIVE EARLY WARNING EARLY ACTION	34
IMPLEMENTATION GUIDE FOR GENDER- AND DISABILITY-INCLUSIVE WARNINGS	36

05

Governance	43
CHECKLIST FOR INCLUSIVE EARLY WARNING EARLY ACTION	43
IMPLEMENTATION GUIDE FOR GENDER- AND DISABILITY-INCLUSIVE WARNINGS	46

CHECKLIST AND IMPLEMENTATION GUIDE FOR INCLUSIVE EARLY WARNING EARLY ACTION

Early warning is a critical component of disaster risk reduction (DRR) and an effective system to protect lives and livelihoods. To be effective, early warning systems (EWS) should have a sound scientific basis and reliable technology but primarily be people-centred, multi-hazard, trusted and accessible to all. They should consider the unique needs and capacities of different groups, including people who are marginalised or living in vulnerable situations.

This checklist and implementation guide was developed as part of the Climate Risk and Early Warning Systems (CREWS) Pacific initiative and seeks to contribute to the implementation of the Executive Action Plan 2023–2027 for the Early Warning for All initiative by ensuring that early warning systems are people-centred and tailored to the specific needs of various groups.

The purpose of the checklists and implementation guides is to ensure that the key elements of early warnings systems (governance; disaster risk knowledge; detection, monitoring, analysis, and forecasting; dissemination and communication; and preparedness to respond) are gender-responsive and disability-inclusive. They provide support and direction for systematically integrating and monitoring gender and disability inclusivity across all actions related to warnings. This checklist can be adapted or contextualised as needed.

The key objectives are:

1. Strengthened governance mechanisms and environments enabled for enacting and monitoring gender and disability inclusivity in warnings.
2. Enhanced capacity of the audience groups to ensure gender-responsive and disability-inclusive warnings.
3. Enhanced preparedness, readiness and responses for everyone to act effectively on warning and risk information.
4. Adverse impacts of hazards and disasters minimised through warnings while reducing vulnerabilities by creating and maintaining gender-responsive and disability-inclusive warnings.

The key audience groups are:

1. National Meteorological and Hydrological Services (NMHSs)
2. National Disaster Management Offices (NDMOs)
3. National stakeholders engaged in early warning systems.
4. CREWS Pacific SIDS 2.0 implementing partners.
5. Local organizations, communities and populations

KEY CONCEPTS AND DEFINITIONS

Disaster is a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic and environmental losses, and impacts. The term “natural disaster” is avoided, referring to only “disaster”, to support the idea that vulnerabilities are the root cause of disaster, and that disaster risk can be reduced through actions such as DRR and disaster risk management.

Early warning is an integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities, and the governance of them all to produce systems and processes that enable individuals, communities, governments, businesses, and others to take timely action to reduce disaster risks in advance of hazardous events¹.

Early action covers the activities that any individual or organization could implement in response to a forecast or early warning before a hazard has occurred to reduce the impact. It highlights a shift in conceptualisation from reactive emergency response to prevention through clear transmission of the potential impact of an incoming hazard.

Multi-hazard early warning systems address several hazards and/or impacts of similar or different types, occurring alone, simultaneously, in a cascade or cumulatively over time and accounting for potential interrelated effects. A multi-hazard EWS with the ability to warn of one or more hazards increases the efficiency and consistency of warnings through coordinated and compatible mechanisms and capacities. It involves multiple disciplines for updated and accurate hazard identification and monitoring for multiple hazards.

Persons with disabilities include those who have long-term physical, mental, intellectual, cognitive, or sensory impairments that – in interaction with various societal barriers – may hinder their full and effective participation in society on an equal basis with others. Examples include visual impairments/blindness, hearing impairments/deafness, mobility restrictions, autism, and dyslexia².

Disability inclusion is the meaningful participation of persons with disabilities, the promotion of their rights and the consideration of disability-related perspectives in compliance with the Convention on the Rights of Persons with Disabilities (CRPD).

Mainstreaming disability inclusion is a consistent and systematic approach to disability inclusion in all areas of operations and programming.

Accessibility refers to ensuring that persons with disabilities have access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas (CRPD, Article 9).

1 A/71/644

2 UNCRPD, 2006, Convention on the Rights of Persons with Disabilities. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>

Organizations of persons with disabilities (OPDs) are organizations comprising a majority of persons with disabilities – at least half their membership – and governed, led, and directed by persons with disabilities (CRPD/C/11/2, Annex II, para 3). Organizations of persons with disabilities should be rooted in, committed to, and fully respect the principles and rights recognised in the Convention (CRPD General comment No. 7, para 11).

Gender refers to the roles, behaviours, activities, and attributes that a given society at a given time considers appropriate for women, men, and people of diverse genders. It concerns the social attributes and opportunities associated with being a woman/girl, a man/boy or a gender-diverse person, as well as the relationships between different genders and between people of the same gender. These attributes, opportunities and relationships are socially constructed and are learned through socialisation processes. They are context- and/or time-specific and changeable. Gender determines what is expected, allowed, and valued in a person in a given context. In most societies, there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities. Women more often than men experience discrimination (direct or systemic) on the basis of gender, which increases gender inequality for women. Gender-diverse people face differences and inequalities – often related to not being recognised or being socially marginalised – as well as discrimination. Gender is part of the broader sociocultural context, as are other important criteria for sociocultural analysis, including class, race, age, poverty level, ethnic group, sexual orientation, gender identity and expression, sex characteristics (SOGIESC) and others³.

³ Based on UN Women Gender Equality Glossary, as of 2020; UN Women Office of the Special Adviser to the Secretary-General on Gender Issues and Advancement of Women (OSAGI), Gender Mainstreaming—Concepts and Definitions (as interpreted in glossary of Gender-Inclusive Legislative Framework and Laws to Strengthen Women’s Resilience to Climate Change and Disasters. Asian Development Bank, December 2021); with gender-diverse dimensions proposed by Mary Picard, UNDRR Gender Advisor, June 2023.

DISASTER RISK KNOWLEDGE

Disaster Risk Knowledge is “comprehensive information on all the dimensions of disaster risk, including hazards, exposure, vulnerability and capacity, related to persons, communities, organizations and countries and their assets”⁴. To achieve this goal, engage all stakeholders in developing knowledge of vulnerabilities (including exposures), hazards and risks.

As in the “Key concepts and definitions” on page 6 and 7 accompanying this checklist:

- Gender refers to women, girls, men, boys, and all diverse genders, which can vary depending on culture and context.
- Persons with disabilities include those who have long-term physical, mental, intellectual, cognitive, or sensory impairments.



Select one answer for each question.

See the accompanying guidance note to fill in gaps and to continue improving.

Question	Yes	No	Partial	Unknown
Question here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Question here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Data collection and analysis

Question	Yes	No	Partial	Unknown
Do people of diverse genders participate in:				
1) survey design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) preparation for data collection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) data analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) writing recommendations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) implementing recommendations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁴ WMO, 2018, Multi-Hazard Early Warning Systems: A Checklist. <https://www.preventionweb.net/publication/multi-hazard-early-warning-systems-checklist>

Question	Yes	No	Partial	Unknown
Do persons with disabilities participate in:				
1) survey design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) preparation for data collection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) data analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) writing recommendations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) implementing recommendations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is continual feedback being collected from data collectors and participants about how safe they feel in relation to the hazard? <i>This includes perceptions of safety before, during and after a specific hazard.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all data secured online and offline?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Before data collection

Question	Yes	No	Partial	Unknown
Are diverse definitions of “gender” understood and acknowledged within the contexts being examined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are diverse definitions of “persons with disabilities” understood and acknowledged within the contexts being examined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there locally developed and agreed checklists identifying genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there locally developed and agreed checklists identifying persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During data collection

Question	Yes	No	Partial	Unknown
Are people’s diverse communication abilities accounted for in obtaining consent and collecting data (for example, people who cannot read, write, see, hear and/or speak, as well as people with intellectual or cognitive impairment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do participants understand why they are being asked about their gender?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do participants understand why they are being asked about their disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have participants provided their free, prior and informed consent for the data collection, storage and analysis, including “prefer not to say” options?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is privacy guaranteed through anonymity and confidentiality when people provide data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there procedures for assessing genders which might be missing from the data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there procedures for assessing disabilities which might be missing from the data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Data analysis

Question	Yes	No	Partial	Unknown
Is it certain that an individual cannot be identified from the data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are “prefer not to say” choices fully included in the data analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are recommendations provided for all genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are recommendations provided for all disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hazard identification

Question	Yes	No	Partial	Unknown
Can people identify regular and common hazards in their location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can people identify unusual and uncommon hazards in their location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When a warning is issued for a specific hazard, do people understand what the hazard is?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When a warning is issued for a specific hazard, do people understand what the impacts could be?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vulnerabilities and exposures

Question	Yes	No	Partial	Unknown
Have people been able to identify their own vulnerabilities and exposures to hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are vulnerabilities and exposures to hazards identified that can be attributed to people’s gender?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are vulnerabilities and exposures to hazards identified that can be attributed to people’s disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have people been able to express their gender-based unmet needs that create or augment their vulnerabilities and exposures to hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have people been able to express their disability-based unmet needs that create or augment their vulnerabilities and exposures to hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Capacities and abilities

Question	Yes	No	Partial	Unknown
Have people been able to identify their own capacities and abilities for understanding and using disaster risk information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have people’s capacities and abilities for accessing and understanding disaster risk information been assessed and identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question	Yes	No	Partial	Unknown
Has it been considered how disabilities can impact access to disaster risk information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has it been considered how gender can impact access to disaster risk information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have people expressed their gender-based requirements to obtain and use disaster risk information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have people expressed their disability-based requirements to obtain and use disaster risk information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Risk identification and assessment

Question	Yes	No	Partial	Unknown
Have people been able to identify and assess their own risks, noting how their gender does and does not make a difference?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have people been able to identify and assess their own risks, noting how their disabilities do and do not make a difference?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are people's risks identified and assessed to see what can be attributed to their gender?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are people's risks identified and assessed to see what can be attributed to their disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open-ended questions for reflection

1. How well do the data contribute to gender- and disability-inclusive warnings?
2. What insights might you be seeking that the data analysis cannot provide?
3. How do your perspectives on gender and disability differ from local perspectives?
4. Could there be hazards that people cannot or will not recognise as hazards?
5. Could people have gender- or disability-based vulnerabilities and exposures that they cannot or will not identify themselves?
6. Could people have gender- or disability-based capacities and abilities that they cannot or will not identify themselves?
7. Could people have gender- or disability-based risks that they cannot or will not identify themselves?

DISASTER RISK KNOWLEDGE

Action

Develop community-based/driven early warning systems (CBEWS)

Why

To empower people and communities to design, prepare for, respond to, and issue warnings that include local knowledge and meet individual needs

How to Implement

- To build or enhance the existing CBEWS, follow guidelines such as those provided by the International Federation of Red Cross (IFRC) Toolkit on CBEWS, including:
 - Compile all the evidence on existing warnings.
 - Get as many interested stakeholders as possible around the table to produce a joint proposal for funding. Use bridging, sustainability and partnerships to achieve this.
 - Advocate for improved laws and procedures for EWS
 - Empower the local communities using the 13 guiding principles laid out in the IFRC Toolkit
- Enable and support communities to integrate local knowledge from any gender and persons with a variety of disabilities, including traditional knowledge and local observations, into their CBEWS.
- Build CBEWS to be more inclusive, enabling engagement with minority groups and providing more gender and disability inclusivity as part of the process. However, there may still be marginalised groups, as some genders and disabilities may not be accepted within a certain community. Local and regional organizations must therefore have engagement with the CBEWS.
- These inclusive warning systems provide a tool for continual feedback from everyone

Partners

- Gender focal people
- Disability focal points
- Organizations of persons with disabilities
- Local women's organizations/groups/charities
- Local gender-focused organizations/groups/charities
- Local disability-focused organizations/groups/charities
- National agencies
- Government (local, regional, national)
- Local populations
- Media, e.g., radio channels
- Church groups
- Tribal leaders
- Caregivers
- Health organizations/medical professionals

Key Resources/Examples

IFRC CBEWS Tools

<https://www.ifrc.org/document/community-early-warning-systems-guiding-principles>

IFRC Community Early Warning Systems (CEWS) Training Toolkit – Field Guide

<https://www.ifrc.org/document/community-early-warning-systems-cews-training-toolkit-field-guide>

Community-Based Early Warning Early Action (EWEA) in the Pacific: Findings from Palau

<https://www.climatecentre.org/wp-content/uploads/RCCC-Pacific-Palau-report-Final.pdf>

Community-Based Early Warning Early Action (EWEA) in the Pacific: Findings from Tuvalu

<https://www.climatecentre.org/wp-content/uploads/RCCC-Pacific-Tuvalu-report-final.pdf>

Action

Enhance scientific knowledge of vulnerabilities (including exposures) and hazards

Why

To obtain relevant data for making sure warnings are designed, issued and implemented in a more effective manner

How to Implement

- Assign or support a relevant government (or other) agency that is legally required to monitor and collect data to enhance warning design and implementation by collecting and analysing data on:
 - Vulnerabilities (including exposures), hazards and potential impacts.
 - Needs of groups/individuals
 - Sex, age and disability
 - The way they would prefer to receive a warning
 - What they need to act on the warning
- Collect currently available historic data to help generate understanding of the risk potential.
- Make sure that the monitoring agency (usually national) not only provides a scientific research centre but also:
 - Engages with local and national universities
 - Conducts public engagement/outreach events with local communities to help build knowledge together
 - Provides official warnings and information via a range of outputs, such as warning systems, social media, website and educational resources
- Create credibility and trust between the scientists and the local communities, along with the responding agencies/organizations. Activities can be led by the designated gender and disability focal points

Partners

- Gender and disability focal people
- National agencies
- Government (local, regional, national)
- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels
- Church groups
- Tribal leaders
- Bureau of Statistics

Key Resources/Examples

USGS
<https://www.usgs.gov>

The Australian Department of Fire and Emergency Services
<https://dfes.wa.gov.au>

The Pacific Disaster Centre
<https://www.pdc.org>

Action

Integrate knowledges

Why

To include traditional, local, scientific and external knowledges to issue effective warnings

How to Implement

- Traditional and local knowledges are trusted and can hold warning clues, alongside scientific and external knowledges. Therefore, national agencies should integrate this knowledge with scientific data and use it to help enhance the uptake of warnings. This can be done by:
 - Supporting oral traditions that have been proven to be a robust, self-sufficient type of warning.
 - Help reinforce songs, stories, theatre and children’s play, which all have a key role in integrating traditional science and modern scientific knowledge and provide educational and coproduction capabilities.
- Work with local chiefs and religious leaders to build relationships and familiarity with national agency staff, in particular the gender and disability focal points

Partners

- Tribal leaders
- Gender and disability focal points
- National agencies
- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels
- Church groups

Key Resources/Examples

Cyclone Harold and the Role of Traditional Knowledge in Fostering Resilience in Vanuatu
https://trauma.massey.ac.nz/issues/2022-1/AJDTS_26_1_Pierce.pdf

GNS New Zealand and Māori Collaboration
<https://www.gns.cri.nz/partner-with-us/partnering-with-maori/>

Action

Develop gender and disability risk knowledge

Why

To develop and implement inclusive warnings

How to Implement

This can be achieved by:

- Reaching out to local groups (including social, religious or cultural), charities, agencies, health-care providers and trusts for information and opportunities to engage and subsequently prepare and work with for different warnings.
- Accessing local checklists and resources that may be available by different groups, charities, etc., to help enhance warning designs to be inclusive for any gender and all persons with disabilities.
- Providing a space locally and online for people to register their needs and requirements and request assistance. (This data will need additional security protection for identification purposes)
- Generating information resources such as leaflets or radio shows for people to understand how they can highlight their specific needs and for them to know how data is being recorded.
- Developing secure databases including national disability databases and resources online for vulnerability and data management so that participants feel safe, their data is not prone to misuse or is distributed and that the data is secure.

Partners

- Data and information technology (IT) security specialists
- Gender and disability focal people
- National agencies
- Government (local, regional, national)
- Organizations for persons with disabilities
- Women's organizations
- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels
- Church groups
- Tribal leaders
- Caregivers
- Health organizations/medical professionals

Key Resources/Examples

See the guidelines on [Hyper-Marginalised Groups and Disaster Data](#)

and [Data Protection in the Pacific: What Are Your obligations?](#)
<https://www.lexology.com/library/detail.aspx?g=ca9980ac-a7ca-4f97-8859-71bd23f05a92>

Action

Ensure vulnerability (including exposure) and hazard knowledges are not siloed

Why

To enhance multi-vulnerability and multi-hazard scenarios

How to Implement

- This requires agencies and communities to work together to review the interactions of different vulnerabilities (including exposures), hazards and scenarios. This can be achieved by:
 - Using local island or community disaster committee meetings to bring different stakeholders together to discuss.
 - Running scenario events or drills to establish local vulnerabilities (including exposures) and hazards.
 - Providing further opportunities to develop and review risk assessments and maps to coproduce knowledge between agencies and the public.
- Ensure national agencies work together to review differing vulnerabilities (including exposures) in case hazards occur concurrently, so people won't be evacuated to an area likely to experience a different hazard.

Partners

- | | |
|--|--|
| • Gender and disability focal people | • Media, e.g., radio channels |
| • National agencies | • Church groups |
| • Government (local, regional, national) | • Tribal leaders |
| • Local organizations/groups/charities | • Caregivers |
| • Local populations | • Health organizations/medical professionals |

Key Resources/Examples

Key example:
[Guidance on Participatory Workshops](#)

Action

Implement measures to support those with gender- and disability-specific needs

Why

To implement required actions

How to Implement

- Whether wheelchair ramps, warnings for deaf people or providing a separate location for nonbinary genders to seek shelter, the knowledge derived from the above initiatives must be used to help enhance people's capacity to receive, believe and take action based on the warning.
- This may require infrastructure investment or simple investments in supporting coordination events or running yearly drills.
- Support groups and communities to obtain such funding, and if this is not possible, revisit the plans to make sure that everyone is accommodated.

Partners

- Gender and disability focal people
- National agencies
- Government (local, regional, national)
- Local organizations/groups/charities
- Local populations
- Church groups
- Tribal leaders

Key Resources/Examples

See guidance in

Major Hazards and People with Disabilities: A Toolkit for Good Practice

GFDRR Guides on Disability Inclusion (including the Action Plan 2018–2023)

<https://www.gfdr.org/en/disability-inclusion>



DETECTION, OBSERVATION, MONITORING, ANALYSIS, AND FORECASTING

Detection, monitoring, analysis and forecasting of the hazards and consequences refers to “multi-hazard monitoring and forecasting services with a sound scientific and technological basis”⁵. To achieve this goal, scientific and technological approaches should integrate local and traditional knowledge for communities to better understand disaster risk.

As in the “Key concepts and definitions” on page 6 and 7 accompanying this checklist:

- Gender refers to women, girls, men, boys, and all diverse genders, which can vary depending on culture and context.
- Persons with disabilities include those who have long-term physical, mental, intellectual, cognitive, or sensory impairments.

 **Select one answer for each question.**

See the accompanying guidance note to fill in gaps and to continue improving.

Question	Yes	No	Partial	Unknown
Question will appear here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Question will appear here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Detection and monitoring of hazards and consequences

Question	Yes	No	Partial	Unknown
Do people of diverse genders participate in detection and monitoring of hazards and their consequences?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do persons with disabilities participate in detection and monitoring of hazards and their consequences?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are hazard detection and monitoring systems and techniques suitable for a wide variety of people’s communication abilities (for example, people who cannot read, write, see, hear and/or speak)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the same hazard information available in several formats, modes, languages and media and therefore accessible to persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁵ WMO, 2018, Multi-Hazard Early Warning Systems: A Checklist. <https://www.preventionweb.net/publication/multi-hazard-early-warning-systems-checklist>

Question	Yes	No	Partial	Unknown
Are local/traditional knowledges and abilities of people of diverse genders used to detect, monitor and inform about hazards, in combination with external technology and systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are local/traditional knowledges and abilities from persons with disabilities used to detect, monitor and inform about hazards, in combination with external technology and systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are warning centres available all the time (24/7)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can anyone access hazard detection and monitoring information by themselves in multiple formats?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can formats of hazard detection and monitoring information be easily adjusted when individuals request it, so that persons with disabilities can access it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Analysis and forecasting of hazards and consequences

Question	Yes	No	Partial	Unknown
Are regular tests, exercises and drills enacted to check that people of diverse genders receive and act appropriately on hazard information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are regular tests, exercises and drills enacted to check that any person with with disabilities and their support networks receive and act appropriately on hazard information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are hazard analysis and forecasting results made available for all people's communication abilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the Common Alerting Protocol used in combination with local/traditional knowledges to supply and verify receipt of the same hazard analysis and forecasting information in several formats, modes, languages and media?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can people access hazard analysis and forecasting information in multiple formats and in plain language?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can formats of hazard analysis and forecasting information be easily adjusted when individuals request it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do all the above apply to when a hazard has passed, so that people can stand down from the current warning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open-ended questions for reflection

1. How can lessons on analysis and forecasting of hazards and consequences from people of diverse genders and persons with disabilities be recorded and applied?
2. How can lessons on detection and monitoring of hazards and consequences from people of diverse genders and any person with disabilities be recorded and applied?

DETECTION, OBSERVATION, MONITORING, ANALYSIS, AND FORECASTING

Action

Establish
clear legal
remits

Why

To enable clarity and accountability for each organization's role in inclusive warnings

How to Implement

- Identify who is legally required to issue warnings that are gender- and disability-inclusive to help establish credibility, clarity and trust between the agencies and the public. Inclusive warnings require that all groups receive warnings irrespective of gender or disability.
- The key warning agency/entity should issue official relevant gender- and disability-inclusive information.
- Clearly agree on and define the responsibilities and roles of the key agencies involved in gender- and disability-inclusive warnings and document these for accountability purposes.
- Establish standard operating procedures to work with others and to notify/manage the public (depending on responsibility)
- Issue warnings tailored for differing gender and disability needs. This includes establishing agreements and interagency protocols so there is clarity on roles and the public are clear who is doing what.

Partners

- Gender focal people
- Disability focal people
- OPDs
- Local women's organizations/groups/charities
- Local gender-focused organizations/groups/charities
- Local disability-focused organizations/groups/charities
- National meteorological and hydrological services, geological services, national disaster management office, district and village authorities, and island or community disaster committees
- Line ministries (Health, Agriculture, Communications, Ministry for Women, Children and Social Affairs)
- Emergency responders
- Community members
- Media (national radio/TV)
- Church groups
- Tribal leaders

Key Resources/Examples

Pacific Framework for the Rights of Persons with Disabilities
<https://www.forumsec.org/wp-content/uploads/2018/05/PFRPD.pdf>

IFRC: The Checklist on Law and Disaster Risk Reduction
https://disasterlaw.ifrc.org/sites/default/files/media/disaster_law/2020-09/The%20Checklist%20on%20law%20and%20DRR%20Oct2015%20EN%20v4.pdf

and
https://disasterlaw.ifrc.org/sites/default/files/media/disaster_law/2020-09/DRR%20Report%20%28full%20version%29%20final_page_LR.pdf

Action

Collect monitoring data for forecasting a disaster

Why

To provide knowledge and information on hazards, vulnerabilities and risks to inform warning decisions

How to Implement

- Monitor potential hazards. This can be done by:
 - Monitoring agency's observatories and equipment.
 - Whether basic or expensive equipment is used, it is important to make sure it is reliable and effective. Funding is needed to make sure all equipment is monitored and maintained.
 - Integrating and using available observation networks and systems that comply with standards such as those set by the UN.
 - Local and traditional ways of observation and knowledge
 - Citizen scientists (data collected by locally trained and responsible members of the community by phone, radio or apps)
- Use of international resources such as satellite imagery or early warning systems like those used for drought, sea level rise or emergent infectious diseases.
- Monitor vulnerabilities by collecting local social and economic data to develop updated plans for any gender and for all persons with disabilities.
- Work closely with the Bureau of Statistics and other line ministries that collect population data to integrate gender and disability disaggregated data and questionnaires on social, economic and other vulnerabilities.
- Information or warnings may come from the public and should be able to be received and integrated with other data to enhance knowledge. This multidirectional feedback should be supported and monitored with open phone lines or easy-to-use online survey or feedback forms.

Partners

- National meteorological and hydrological services, geological services, national disaster management office, district and village authorities, island or community disaster committees
- Line Ministries (Health, Agriculture, Ministry for Women, Children and Social Affairs)
- Community members
- Local organizations/groups/charities

Key Resources/Examples

Volcano Observatory Best Practices

<https://appliedvolc.biomedcentral.com/articles/10.1186/s13617-019-0082-8>

Assessing Vulnerabilities to Disaster Displacement: A Good Practice Review

<https://www.undrr.org/media/76315/download>

Action

Use citizen science

Why

To enhance warnings through the power of many local observations

How to Implement

- Enable local communities to monitor vulnerabilities (including exposures), hazards and disaster risks, such as by:
 - A citizen scientist taking measurements – this is a member of the public who has been trained to measure and collect data and to use equipment to assist in the monitoring of hazards.
 - Analysing the data – this may be done by a member of the public who has been trained to conduct basic data analysis, as well as women and persons with disabilities, youth and other community members who may review the implications of the data on their community.
 - Develop community-hazard mapping.
 - Support and train island or community disaster management committees to collect data on hazards, vulnerabilities and risks, disaggregated by gender and disability.
 - Involve local women’s groups, youth groups and persons with disabilities in collecting, analysing and sharing data on hazards, vulnerabilities and risks.
 - Engaging with the monitoring agencies, or even being part of the agency
- Recruit local community members to take the lead on monitoring and also the community engagement and preparedness activities to great effect.
- Use citizen science to help establish gender- and disability-inclusive warnings for different needs and contexts by developing knowledge of needs and requirements.

Partners

- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Local organizations/groups/charities
- Local populations
- Church groups
- Tribal leaders
- Media, e.g., radio channels
- Schools and universities

Key Resources/Examples

Project Citizen Science for Disaster Risk Reduction
<https://citizensciencedrr.com>

Action

Establish or strengthen the capacity of existing dedicated warning centres

Why

To provide 24/7 warning coverage

How to Implement

Strengthen the capacity of existing dedicated warning centres by:

- Ensuring they operate 24/7 to:
 - Collate warning information.
 - Verify warnings.
 - Decide what to do/issue.
 - Issue the warning and make sure it is received and acted
- By ensuring that warning centres are accessible for persons with disabilities. The venue and communication channels comply with universal design principles and are accessible, tailored to the needs of persons with disabilities.
- Warning centres must issue warnings that can reach everyone and that are gender- and disability-inclusive. Therefore, issue warnings with:
 - a variety of formats (text message, radio, TV, social media)
 - accessible formats that comply with international standards and universal design principles to reach persons with a variety of disabilities (closed captioning, live captioning, sign language interpretations, audio descriptions of hazard alerts, evacuation routes, easy-to-understand content)
 - communication types (verbal, nonverbal and written)
 - different local languages and dialects spoken in the area, including sign language, communicated via audio methods and media.
 - methods for those who have differing gender or disability needs (such as specialist warning equipment, like a flashing light or vibrating alarm)
- Engage and work with local and national media to provide relevant information and guidance.
- Provide training to scientists to speak to the public via media in a way that helps them to understand and follow guidance.
- Adopt global initiatives like the Common Alerting Protocol (CAP) that can be used to include a wide reach of warnings.
- Redundancy in warnings is needed, as reliance on technology can lead to failure if electricity is unavailable or mobile networks fail. Good examples include using radio waves or physical warning signs/alerts.

Partners

- National meteorological and hydrological services, geological services, national disaster management office, district and village authorities, island or community disaster committees
- Emergency responders
- Mass media
- OPDs

Key Resources/Examples

Pacific Tsunami Warning Centre
<https://tsunami.gov/?page=history>

Universal Design Principles

<https://universaldesign.ie/what-is-universal-design/the-7-principles/>

<https://www.washington.edu/doit/universal-design-instruction-udi-definition-principles-guidelines-and-examples>

Guidelines for Implementation of Common Alerting Protocol (CAP) Enabled Emergency Alerting

https://library.wmo.int/doc_num.php?explnum_id=3431

Guideline on Inclusive Disaster Risk Reduction: Early Warnings and Accessible Broadcasting

https://www.preventionweb.net/files/42819_42819didrrguidelineearlywarninganda.pdf

Vanuatu Meteorological and Geohazards Department Introduced CAP in Warning

https://star.gsd.spc.int/meeting_docs/presentations/Session7-4_CommonAlertingProtocol_VU_TodmanS.pdf

Pacific Disability Forum developed disability-inclusive communication and messaging guidelines to communicate risk information during the COVID-19 outbreak. These guidelines can be used for other hazards, too: <https://pacificdisability.org/resources/>

CAP by Vanuatu

https://star.gsd.spc.int/meeting_docs/presentations/Session7-4_CommonAlertingProtocol_VU_TodmanS.pdf

Action

Explain false alarms and close calls

Why

To maintain credibility and trust

How to Implement

- Identify who received a false alarm and clarify why it was a false alarm and what has been learnt from this, then explain why people should trust the next warning.
- This requires significant engagement with the affected populations, as well conveying the messages via local media (TV and radio) and other accessible formats to reach persons with disabilities.
- False alarms and close calls should be included in the gender- and disability-inclusive warning planning process.

Partners

- National meteorological and hydrological services, geological services, national disaster management office, district and village authorities, island or community disaster committees
- Emergency responders
- Mass media
- OPD

Key Resources/Examples

UCL WRC Briefing Note on False Alarms and Near Misses
https://www.ucl.ac.uk/sts/sites/sts/files/briefing_note_false_alarms_and_near_misses.pdf

Action

Stand-down warnings

Why

To provide clarity when a threat is over

How to Implement

- Issue an update to warnings with an explanation when a situation is safe. This is so people know when it is safe to return to home or to conduct limited activities.
- Ensure that these updates are accessible in different formats for persons with disabilities and their representing organizations.
- Maintain trust and credibility by being transparent and honest.
- Work with local communities so they will know when it is safe for them to return, with gender- and disability-related needs met.

Partners

- National meteorological and hydrological services, geological services, national disaster management office, district and village authorities, island or community disaster committees
- Emergency responders
- Mass media
- OPD

Key Resources/Examples

Lessons Learnt from Easing COVID-19 Restrictions
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7515628/>

DISSEMINATION AND COMMUNICATION

Warning dissemination and communication is the “communication and dissemination systems (including the development of last-mile connectivity) ensuring people and communities receive warnings in advance of impending hazard events and facilitating national and regional coordination and information exchange”⁶. To achieve this goal, communication must be multidirectional, clear, consistent, and ongoing.

As in the “Key concepts and definitions” on page 6 and 7 accompanying this checklist:

- Gender refers to women, girls, men, boys, and all diverse genders, which can vary depending on culture and context.
- Persons with disabilities include those who have long-term physical, mental, intellectual, cognitive, or sensory impairments.

▶ **Select one answer for each question.**

See the accompanying guidance note to fill in gaps and to continue improving.

Question	Yes	No	Partial	Unknown
Question will appear here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Question will appear here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Warning Dissemination

Question	Yes	No	Partial	Unknown
Are organizational roles and responsibilities assigned to ensure that warning dissemination is gender-inclusive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are organizational roles and responsibilities assigned to ensure that warning dissemination is disability-inclusive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do warning dissemination strategies explain how to include people with diverse genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do warning dissemination strategies explain how to include any persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there regular interactions and exchanges between those disseminating warnings and representatives of women’s and gender organizations and groups?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there regular interactions and exchanges between those disseminating warnings and representatives of disability organizations and groups?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁶ WMO, 2018, Multi-Hazard Early Warning Systems: A Checklist. <https://www.preventionweb.net/publication/multi-hazard-early-warning-systems-checklist>

Question	Yes	No	Partial	Unknown
Do local women's and gender organizations and groups participate in disseminating warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do organizations and groups for persons with disabilities participate in disseminating warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are protocols agreed with media on disseminating warning messages to reach diverse genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have these protocols been tested and practiced through simulation exercises?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are protocols agreed with media on disseminating warning messages to reach persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have these protocols been tested and practiced through simulation exercises?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Communication

Question	Yes	No	Partial	Unknown
Do warning messages provide clear guidance on actions to take for diverse genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do warning messages provide clear guidance on actions to take for any persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do warning messages provide clear guidance on actions to take for people with caring responsibilities (e.g., care responsibilities for people with disabilities, children, elderly people, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do pre-hazard warning communications indicate how people with caring responsibilities should prepare for hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do pre-hazard warning communications indicate how diverse genders can prepare for hazards that occur within different time frames (from seconds to years)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do pre-hazard warning communications indicate how any person with disabilities can prepare for hazards that occur within different time frames (from seconds to years)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do most persons with disabilities have all the communications technologies they need for warnings (for example, hearing aids and automatic text readers)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all communications technologies for persons with disabilities accessible and functional?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all communications technologies for persons with disabilities regularly checked, maintained and updated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are possible points of failure in communicating warning information to diverse genders regularly searched for, assessed and rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are possible points of failure in communicating warning information to any person with disabilities regularly searched for, assessed and rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question	Yes	No	Partial	Unknown
Are there communication channels for people to report warning signs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are communication channels for people to report warning signs used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there communication channels for people to ask gender-specific questions on warning signs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there fully accessible communication channels for people to ask disability-specific questions on warning signs? (These channels should be available for persons with disabilities through assistive devices such as text-to-speech software that allows persons with disabilities to communicate with others.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open-ended questions for reflection

1. If people do not wish to have regular warning-related communication, how could they be convinced otherwise?
2. How can people not being reached by warning dissemination be identified?

DISSEMINATION AND COMMUNICATION

Action

Ensuring warning dissemination

Why

To ensure a warning generates action

How to Implement

- Establish gender-sensitive and disability-inclusive warnings by:
 - Building a relationship with the local community and their gender and disability organizations, especially those with additional needs, via town hall meetings and other public engagement events
 - Building relationships with local agencies, charities or health facilities
 - Enable and support communities to integrate local knowledge from any gender and persons with a variety of disabilities, including traditional knowledge and local observations, into their CBEWS.
- Understand people's needs and establish the relevant plans, roles and responsibilities.
- Work with the media to aid the development and dissemination of gender- and disability-inclusive warnings.
- Work with Red Cross volunteers or community volunteers
- Work with OPDs
- Work with local women's organizations and groups that are involved in DRM.

Partners

- Gender focal people
- Disability focal points
- Organizations of persons with disabilities
- Local women's organizations/groups/charities
- Local gender-focused organizations/groups/charities
- Local disability-focused organizations/groups/charities
- National meteorological and hydrological services, geological services, national disaster management office, district and village authorities, island or community disaster committees
- Emergency responders
- Mass media

Key Resources/Examples

CBM Global Disability Inclusion
<https://idrr.cbm.org/en/card/warning-dissemination>

Mobile Accessibility Features
<https://www.accessibility.com/blog/ios-v-android-mobility-accessibility-features-listed>

Mobile App Accessibility
<https://info.webusability.co.uk/blog/mobile-app-accessibility>

Assistive Technologies: Screen Readers and Magnifiers
<https://info.webusability.co.uk/blog/assistive-technologies-screen-readers-and-magnifiers>

Action

Create communication networks

Why

To ensure warning information is disseminated and queries can be managed

How to Implement

- Implement multidirectional communication:
 - Use a wide range of tools to communicate, issue and respond to gender- and disability-inclusive warnings.
 - Engage volunteers and local village heads to go door to door to warn community members, especially persons with disabilities, female-headed households, older persons and others.
 - Use existing warning systems and devices such as sirens, loudspeakers, drums, torches, flags or electronic signs to warn community members.
 - Tailor these tools and warning messages to individuals/groups with specific needs
 - Disseminate warnings in accessible formats to reach people with a variety of disabilities (closed captioning, live captioning, sign language interpretations, audio descriptions of hazard alerts, evacuation routes, easy-to-understand content)
 - Make the warning process multidirectional, so the public can feed information into the process and also ask questions and seek clarity, as well as develop their own gender- and disability-inclusive warnings.

Partners

- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Local organizations/groups/charities
- Local populations
- Church groups
- Tribal leaders
- Media, e.g., radio channels

Key Resources/Examples

Disability-Inclusive Communication Guidelines
<https://pacificdisability.org/resources/>

See Pacific Disability Forum's disability-inclusive communication and messaging guidelines used to communicate risk information during COVID-19 outbreak. These guidelines can be used for other hazards, too.

<https://pacificdisability.org/resources>

Action

Test communication and feedback

Why

To ensure that the warning system is working, and warnings are understood as intended

How to Implement

- Organize and run drill or scenario events (even desktop) to test how effective the system is and what modifications need to be made to ensure gender- and disability-inclusive warnings are effective.
- Establish dialogue between different agencies and vulnerable groups, because that helps foster trust and clarity on what needs to be done when a warning is issued.
- Make sure warnings are issued in the format that is relevant for people's various genders and disabilities, including people who lack access to radios, TV and mobile phones

Partners

- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Local organizations/groups/charities
- Local populations
- Church groups
- Tribal leaders
- Media, e.g., radio channels
- Those with specific needs
- Caregivers
- Health organizations/medical professionals

Key Resources/Examples

Best Practices on Public Warning Systems for Climate-Induced Natural Hazards
https://drmkc.jrc.ec.europa.eu/Portals/0/innovation/SupportSystem/11_Lithuania/JRC_PublicWarningonNaturalHazard_05_PWS_final.pdf

Action

Being clear about what the warnings say and do not say

Why

To ensure understanding of the hazard and risk

How to Implement

- Ensure that gender- and disability-inclusive warnings provide information on:
 - The hazard/hazards, including location and timings.
 - Anticipated or likely impact of the hazard (impact-based warnings)
 - Actions needed.
- Produce guidance information tailored to gender and disability needs, such as via:
 - An alert level system
 - Information bulletins
 - Social media
 - Media (TV, radio)
- Make sure gender- and disability-inclusive warnings address the legal remit of the warning organization (i.e., warn of hazard or risk)
- Work with the media to disseminate details and updates to populations nationally or very locally.
- Build in redundancy to warnings, and do not be too prescriptive, as circumstances can change.
- Make sure that different warnings do not contradict each other.

Partners

- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels

Key Resources/Examples

Key example: Okawa Elementary School, Japan
<https://doi.org/10.1016/j.ijdrr.2020.101632>

PREPAREDNESS AND RESPONSE

Preparedness and response capabilities are the “institutions and people enabled to act early and respond to a warning through enhanced risk education”⁷. To achieve this goal, ensure that warnings are fully integrated into preparedness and response plans.

As in the “Key concepts and definitions” on page 6 and 7 accompanying this checklist:

- Gender refers to women, girls, men, boys, and all diverse genders, which can vary depending on culture and context.
- Persons with disabilities include those who have long-term physical, mental, intellectual, cognitive, or sensory impairments.



Select one answer for each question.

See the accompanying guidance note to fill in gaps and to continue improving.

Question	Yes	No	Partial	Unknown
Question will appear here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Question will appear here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Preparedness

Question	Yes	No	Partial	Unknown
Does your organization have a gender focal person on staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your organization have a disability focal person on staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are plans, procedures and guidance for preparedness and readiness produced with the participation of people of diverse gender?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are plans, procedures and guidance for preparedness and readiness produced with the participation of persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do plans, procedures and guidance for preparedness and readiness advise actions for specific genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do plans, procedures and guidance for preparedness and readiness advise disability-specific actions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do local women’s groups and organizations representing gender-diverse people participate in public-awareness raising and education campaigns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do local groups and organizations of persons with disabilities participate in public-awareness raising and education campaigns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁷ WMO, 2018, Multi-Hazard Early Warning Systems: A Checklist. <https://www.preventionweb.net/publication/multi-hazard-early-warning-systems-checklist>

Question	Yes	No	Partial	Unknown
Are evacuation procedures and routes tested, accepted and practiced by people of diverse genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are evacuation procedures and routes tested, accepted and practiced by all persons with disabilities and those with caring responsibilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are procedures for in-home and out-of-home sheltering tested, accepted and practiced by people of diverse genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are procedures for in-home and out-of-home sheltering tested, accepted and practiced by persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do people of any gender have access to hygiene and other essential products for their specific needs, safety and security for at least two weeks without external support?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do all persons with disabilities have available the hygiene and other essential products and technologies for their specific needs, safety and security for at least two weeks without external support (for example, single-use catheters, disinfectant wipes, batteries and portable chargers)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response

Question	Yes	No	Partial	Unknown
Is warning information issued in formats, modes, languages and media that will reach all persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does warning advice address people of diverse genders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does warning advice address the needs of all persons with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are responses monitored to check that people of diverse genders are fully included in actions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are responses monitored to check that all persons with disabilities are fully included in actions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contingency plans in place to support people who are excluded or discriminated against on the basis of their gender?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contingency plans in place to support people who are excluded or discriminated against on the basis of a disability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do after-action reviews and lessons reveal successes and areas of improvement for gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do after-action reviews and lessons reveal successes and areas of improvement for disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do different genders participate in after-action reviews and exercises?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do persons with a range of disabilities participate in after-action reviews and exercises?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open-ended questions for reflection

1. If people responding are away from their usual home, education or workplace – such as being a tourist, shopping or visiting friends – how do the answers to the above questions change?
2. How could people who do not have the financial resources to prepare be supported?

PREPAREDNESS AND RESPONSE

Action

Establish and strengthen gender and disability focal people

Why

To champion and check the inclusivity of everyone involved in early warnings and to implement the items in this checklist

How to Implement

- Nominate a gender and disability champion within your agency/entity (a currently employed member of staff) to ensure that existing policies, plans and activities on warnings and disaster preparedness are gender- and disability-inclusive.
- Nominate a gender and disability champion already in government (local or national) to represent gender and disability in policy around vulnerabilities, hazards, disasters and disaster risk reduction.
- Nominate local community champions (from local organizations/community members such as women's groups, youth groups or organizations for persons with disabilities) to advise on and monitor gender and disability in policy around vulnerabilities, hazards, disasters and disaster risk reduction.
- Work with local groups to foster opportunities to understand the needs of different groups through meetings, discussions and events.
- Ensure that gender and disability inclusivity and accessibility needs are included in policy, warning design and disseminations, preparedness and response.
 - This includes clarifying specific requirements by different groups.
 - How these needs will be accommodated
 - If these plans have been put in place and tested
- Update and check requirements on a yearly basis
- Ideally have a deputy to take over to provide consistency during absence or if changing job/role.
- Have quarterly or biannual meetings with all nominated champions to enable updates.
- Facilitate opportunities to fund the implementation of national policies on gender and disability inclusion.

Partners

- Gender focal people
- Disability focal people
- Local women's organizations/groups/charities
- Local gender-focused organizations/groups/charities
- Local disability-focused organizations/groups/charities
- National disaster management offices, national meteorological and hydrological services
- Other line ministries, including the Ministry of Women, Children and Social Welfare, Ministry of Agriculture, Ministry of Health, Bureau of Statistics, etc.

Key Resources/Examples

UN Women Review of Gender-Responsiveness and Disability-Inclusion in Disaster Risk
<https://www.preventionweb.net/publication/review-gender-responsiveness-and-disability-inclusion-disaster-risk-reduction-asia-and>

UNDRR, Regional Office for Arab States: Women's Leadership in Disaster Risk Reduction
https://s3.eu-west-2.amazonaws.com/igc-production/qdi2UewSnBRwpKG3_L67kN19beY8PPsp.pdf

Designing Inclusive, Accessible Early Warning Systems: Good Practices and Entry Points
<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099050123155016375/p1765160197f400b80947e0af8c48049151>

Action

Develop or enhance existing preparedness plans

Why

To account for the needs of persons with disabilities and gender-specific requirements

How to Implement

- Include disabilities and gender-specific considerations in warning and preparedness plans.
- Design plans via discussion with local champions, disaster committees, community leaders and local organizations
- Test the plans and then implement using drills or simulation events at least once a year.
- Check that the plans are updated, such as with details on new leaders or staff.
- Design plans via discussion with local champions, disaster committees, community leaders and local organizations
- Make sure to address these key issues in the plan:
 - Who are individuals or groups with specific needs and where are they located?
 - Are they able to obtain a timely warning message in a format they can understand?
 - How will their needs be accommodated in an evacuation/crisis?

Partners

- National government or agency responsible for warnings
- Government (local, regional, national)
- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels
- Church groups
- Tribal leaders

Key Resources/Examples

Fiji Disability-Inclusive Community-Based Disaster Risk Management Toolkit
https://wrd.unwomen.org/sites/default/files/2021-11/A2_Disability%20Inclusive%20Community%20Based%20Disaster%20Risk%20Management%20Toolkit%20%281%29.pdf

United States Preparedness Plan
<https://www.ready.gov/business/implementation/emergency>

Action

Enhance and strengthen understanding of warnings and actions

Why

To support groups and individuals with gender- or disability-specific needs so they understand the actions they can take

How to Implement

- Regularly conduct public-awareness and educational campaigns to enhance local knowledge of hazards and warnings.
- Adopt commonly used tools such as simple leaflets, videos, radio interviews or adverts, or discussions at church groups or tribal meetings.
- Build improved engagement activities that give a better sense of how different users understand the warning and what actions they want to take (not necessarily the ones they would be told to take). This provides a learning opportunity to enhance warning systems.
- Understand how people process warnings and how they act, as this will help develop more effective warnings, preparedness and response

Partners

- Gender focal people
- Local organizations/groups/charities
- Those with specific needs
- Caregivers
- Health organizations/medical professionals

Key Resources/Examples

Anticipation Hub Impact-Based Forecasting and Anticipatory Action
<https://www.anticipation-hub.org/learn/emerging-topics/impact-based-forecasting>

Action

Establish or enhance response plans and procedures

Why

To have plans that are acceptable and viable for everyone

How to Implement

- Use the existing island or community disaster committees to organize meetings, scenario events, drills and educational campaigns to establish the plans and procedures.
- Check if the plans account for the needs and requirements of the community.
- Check if people with specific needs (such as a ramp for a wheelchair) can take the actions required (such as getting to and entering an evacuation site) in the timescales.
- Establish a plan to deal with still unidentified disabilities or needs and specific gender needs (for example, sanitary equipment or supplies)

Partners

- National hazard agencies such as the meteorological office tend to take the lead role.
- Government (local, regional, national)
- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels
- Church groups
- Tribal leaders
- Caregivers
- Health organizations/medical professionals
- OPDs

Key Resources/Examples

Key example:

Organizations of Persons with Disabilities: Making a Difference in Vanuatu and Solomon Islands

<https://cbm-global.org/resource/organisations-of-persons-with-disabilities-vanuatu-solomon-islands>

IFRC: Minimum Standards for Protection, Gender and Inclusion in Emergencies

<https://www.ifrc.org/sites/default/files/Minimum-standards-for-protection-gender-and-inclusion-in-emergencies-LR.pdf>

Action

Develop and strengthen a contingency plan for those excluded or discriminated against

Why

To avoid excluding anyone from disaster plans and warning

How to Implement

- Establish a plan on how to engage/evacuate/rescue various groups of people that may be marginalised by:
 - Developing a risk map
 - Developing a preparedness and response plan for specific people or groups
 - Increasing engagement activities to reach everyone.
 - Foster opportunities for those not included to be able to engage/contact key champions

Partners

- Local organizations/groups/charities
- Local populations
- Media, e.g., radio channels
- Church groups
- Tribal leaders
- Caregivers
- Health organizations/medical professionals
- OPDs
- Transport providers (bus and taxi companies; ferry operators if water transport might be required)

Key Resources/Examples

UNDP Marginalised Minorities in Development Programming
<https://www.ohchr.org/sites/default/files/Documents/Issues/Minorities/UNDPMarginalisedMinorities.pdf>

Gender Transformative Early Warning Systems: Peru
<https://practicalaction.org/knowledge-centre/resources/gender-transformative-early-warning-systems-peru/>

Accessible and Inclusive Transport: Can We Achieve It?
<https://blogs.worldbank.org/transport/accessible-and-inclusive-transport-can-we-achieve-it>

How to Make Public Transport Accessible and Inclusive for All
<https://www.uitp.org/news/how-to-make-public-transport-accessible-and-inclusive-for-all/>

Action

Maintain
warning
sustainability

Why

To revisit and update plans and activities, since people and circumstances change over time

How to Implement

- Join with the existing island or community disaster committee to frequently revisit plans, preparedness activities and evacuation drills, and update them regularly to make sure they are still relevant and viable.
- Organize biannual or annual committee meeting/scenario/drill events where there is time for all stakeholders, including the public, to provide feedback that is then used to change and update the warning plans.
- Key stakeholders, community leaders and gender and disability focal person(s) should meet regularly to maintain their relationships and build familiarity and trust while fostering ongoing dialogue and communication

Partners

- | | |
|--|--|
| • Gender and disability focal person | • Church groups |
| • National hazard agencies | • Tribal leaders |
| • Government (local, regional, national) | • Caregivers |
| • Local organizations/groups/charities | • Health organizations/medical professionals |
| • Local populations | • OPDs |
| • Media, e.g., radio channels | |

Key Resources/Examples

Baguio, Philippines: Delivering a Smart and Socially Inclusive Flood Early Warning System
<https://infohub.practicalaction.org/bitstream/handle/11283/622955/Baguio%20City%20project%20flyer.pdf?sequence=1&isAllowed=y>

Action

Conduct post-disaster after-action reviews and analysis

Why

To identify and implement lessons to enhance future warnings and improve effectiveness

How to Implement

- Ensure that post-disaster needs assessment and after-action reviews contain questions on early warning and early action. Specifically, integrate questions on how different groups accessed and responded to warnings, and identify the barriers and enabling factors that impacted whether or not people could respond effectively.
- Invite local women's groups and organizations for persons with disabilities to be part of the survey design and assessment process.
- Following a crisis, learn and apply lessons to enhance risk information, monitoring and communication channels.
- During real crisis events, monitor responses to warnings to see how successful the warnings are – statistics and data are critical.
- Following the crisis, run surveys and focus groups with community members to analyse the success of the warnings, what lessons were learned and how to do better next time.
- Invest in post-event research to maximise future warnings and how they are understood as well as to develop people's trust in the warnings, especially if they failed or trust has waned.

Partners

- | | |
|--|--|
| • Gender and disability focal person | • Media, e.g., radio channels |
| • National hazard agencies | • Church groups |
| • Government (local, regional, national) | • Tribal leaders |
| • National meteorological and hydrology services | • Caregivers |
| • Local organizations/groups/charities | • Health organizations/medical professionals |
| • Local populations | • Local and regional universities and specialised research centres |

Key Resources/Examples

Evaluating Critical Links in Early Warning Systems for Natural Hazards
<https://www.tandfonline.com/doi/abs/10.1080/17477891.2011.609877>

As in the “Key concepts and definitions” on page 6 and 7 accompanying this checklist:

- Gender refers to women, girls, men, boys, and all diverse genders, which can vary depending on culture and context.
- Persons with disabilities include those who have long-term physical, mental, intellectual, cognitive, or sensory impairments.

▶ **Select one answer for each question.**

See the accompanying guidance note to fill in gaps and to continue improving.

Question	Yes	No	Partial	Unknown
Question here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Question here	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Warning Secured as a Long-Term National and Local Priority

Question	Yes	No	Partial	Unknown
Has a framework for analysing the cost and benefit analysis of warning services been established?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are data collected and analysed for the economic benefits of gender-inclusive warnings (such as a cost-benefit analysis of previous warnings during hazard events or disasters, or financial recovery following an event)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are data collected and analysed for the economic benefits of disability-inclusive warnings (such as a cost-benefit analysis of previous warnings during hazard events or disasters, or financial recovery following an event)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the economic benefits of gender-inclusive warnings amplified for government and political leaders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the economic benefits of disability-inclusive warnings amplified for government and political leaders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are examples and case studies of successful gender-inclusive warnings shared with government and political leaders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are examples and case studies of successful disability-inclusive warnings shared with government and political leaders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are gender-inclusive warnings integrated into local development planning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question	Yes	No	Partial	Unknown
Are disability-inclusive warnings integrated into local development planning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are gender-inclusive warning systems integrated into national development planning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are disability-inclusive warning systems integrated into national development planning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a continual annual budget to support the maintenance of gender-inclusive warnings (e.g., staff resources, equipment, monitoring equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a continual annual budget to support the maintenance of disability-inclusive warnings (e.g., staff resources, equipment, monitoring equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there gender-inclusive warning role models or “champions” advocating for the benefits of warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there disability-inclusive warning role models or “champions” advocating for the benefits of warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Legal and Policy Frameworks to Support Warnings

Question	Yes	No	Partial	Unknown
Is there a legal basis for implementing, maintaining and upgrading gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a legal basis for implementing, maintaining and upgrading disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there defined responsibilities supporting the inclusion and interests of people of diverse genders in all organizations involved in warning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there defined responsibilities supporting the inclusion and interests of persons with disabilities in all organizations involved in warning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do defined gender responsibilities include governmental and non-governmental organizations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do defined disability responsibilities include governmental and non-governmental organizations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there monitoring and enforcement frameworks in place to support policies and legislation for gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there monitoring and enforcement frameworks in place to support policies and legislation for disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Institutional Capabilities Assessed and Enhanced

Question	Yes	No	Partial	Unknown
Have capacities been assessed for all organizations and institutions involved in supporting gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have capacities been assessed for all organizations and institutions involved in supporting disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there training programmes for gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there training programmes for disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are non-governmental organizations and the private sector engaged with and encouraged to contribute to gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are non-governmental organizations and the private sector engaged with and encouraged to contribute to disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Financial Resources Secured

Question	Yes	No	Partial	Unknown
Are government funding mechanisms for gender-inclusive warnings developed and institutionalised?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are government funding mechanisms for disability-inclusive warnings developed and institutionalised?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has funding at the international or regional level been explored for supporting gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has funding at the international or regional level been explored for supporting disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do public–private partnerships assist with gender-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do public–private partnerships assist with disability-inclusive warnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open-ended questions for reflection

1. Are resources available to apply for grants locally, nationally, regionally and internationally to support gender- and disability-inclusive warnings?
2. How can gender- and disability-inclusive warnings be better connected from international to regional to national to subnational governance levels?
3. How can law and policy be used to enhance the implementation and success of gender- and disability-inclusive warnings?
4. If agencies have limited institutional capabilities, how can other organizations provide resources, networks and people to support gender- and disability-inclusive warnings?

GOVERNANCE

Action

Maintain
financial
viability

Why

To ensure warning systems are financially supported

How to Implement

- Collect data to provide insights into all benefits of gender- and disability-inclusive warnings.
- Conduct a cost-benefit assessment to support funding for and investment in warnings.
- Work to create a sustained budget to support gender- and disability-inclusive warnings (i.e., staff resources, equipment, monitoring equipment, etc.)
- Integrate gender- and disability-inclusive warnings into existing disaster planning at both national and local levels.
- Appoint a gender warning focal point to advocate for investment in gender-inclusive warnings.
- Appoint a disability warning focal point to advocate for investment in disability-inclusive warnings.
- Provide funding for maintaining gender- and disability-inclusive warnings, not just establishing them

Partners

- Gender focal people
- Disability focal people
- Local women's organizations/groups/charities
- Local gender-focused organizations/groups/charities
- Local disability-focused organizations/groups/charities
- National agencies such as the meteorological office tend to take the lead role.
- Government (local, regional, national)
- Emergency responders

Key Resources/Examples

UNEP programme to support climate resilience in Pacific Islands through early warning systems.

<https://www.unep.org/news-and-stories/press-release/new-unep-programme-support-climate-resilience-pacific-islands>

New funding announced at COP27 to support early warnings and resilience.

<https://public.wmo.int/en/media/news/new-funding-announced-cop27-support-early-warnings-and-resilience>

Multi-Hazard Early Warning Systems: A Checklist

<https://public.wmo.int/en/our-mandate/focus-areas/natural-hazards-and-disaster-risk-reduction/mhews-checklist>

Action

Meet legal responsibilities and accountability

Why

To establish and fulfil legal requirements

How to Implement

- Ensure there is legal basis for implementing, maintaining and upgrading gender- and disability-inclusive warnings.
- Ensure there are policy and operational frameworks for implementing, maintaining and upgrading gender- and disability-inclusive warnings.
- Integrate gender- and disability-inclusive warnings into disaster risk reduction and development policies, and vice versa

Partners

- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Government (local, regional, national)
- Local organizations/groups/charities

Key Resources/Examples

IFRC: The Checklist on Law and Disaster Preparedness and Response
https://disasterlaw.ifrc.org/sites/default/files/media/disaster_law/2020-08/DPR_Checklist_Final_EN_Screen.pdf

Disasters and Responsibility: Normative Issues for Law Following Disasters
https://link.springer.com/chapter/10.1007/978-3-319-92722-0_4

Action

Build warning capacity

Why

To create support for the warnings to enhance capacity and effectiveness

How to Implement

- Assess the capacities of all organizations and institutions involved to support gender- and disability-inclusive warnings, particularly in terms of resources to place plans and policy into action.
- Develop and assess capacity-building plans.
- Develop and provide training programmes for gender- and disability-inclusive warnings.
- Engage non-governmental sectors (NGOs and the private sector) to contribute resources for gender- and disability-inclusive warnings

Partners

- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Government (local, regional, national)
- Local organizations/groups/charities
- OPDs
- Women's support agencies
- Gender focal people
- Disability focal people

Key Resources/Examples

Protecting People in Locally Led Disaster Response

<https://humanitarianadvisorygroup.org/insight/protecting-people-in-locally-led-disaster-response/>

Progress in the Development of Globally Accessible Early Warning Systems: The Gender Dimension of Disaster Risk Reduction

<https://www.un.org/en/un-chronicle/progress-development-globally-accessible-early-warning-systems-gender-dimension>

Humanitarian OpenStreetMap Team (HOT)

<https://www.hotosm.org/what-we-do>

Action

Obtain funding and resources

Why

To ensure adequate funding and resources for warnings, although many low-cost options can be adopted

How to Implement

- Establish government funding mechanisms for gender- and disability-inclusive warnings.
- Make use of international funds to support gender- and disability-inclusive warnings.
- Build public–private partnerships to assist with gender- and disability-inclusive warnings through:
 - Research projects
 - Collaborative projects
 - Training projects
 - Grants to enhance gender inclusivity and disability inclusivity.
 - Grants from local or national charities or organizations to support the work on gender- and disability-inclusive warnings.

Partners

- Government (local, regional, national)
- National agencies such as the meteorological office tend to take the lead role.
- Emergency responders
- Local organizations/groups/charities
- International NGOs and humanitarian agencies
- Academic funding via research projects

Key Resources/Examples

Pacific Resilience Program

<https://projects.worldbank.org/en/projects-operations/project-detail/P147839?lang=en>

Global Challenges Research Fund Networking Grants

<https://acmedsci.ac.uk/grants-and-schemes/grant-schemes/gcrf-networking-grants>





