How Can We Enhance Inclusivity In Warnings?
Five Key Elements to Generate Inclusive Action for EWS & Communities

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What is inclusivity in warning systems?

- Involving everyone in warnings and warning design requires covering and responding to everyone’s characteristics, including:
  - Sex, gender, sexuality, age, race, ethnicity, caste, disabilities (e.g., physical, mental, and cognitive), religion, languages, communication forms, and precarity (e.g., detained, undocumented, homeless, asylum status)
  - Tailor approaches so those using the warnings are contributing to the design and development of those systems in order to have their needs met.

- Inclusivity works beyond a single characteristic: consideration must be given to those with multiple cross-cutting characteristics which are classed as ‘intersectional’. This can result in differential outcomes from warnings, even with the same warning context and information.
Why Inclusivity in Warnings Matters

- Sendai Framework for Disaster Risk Reduction’s Target G: Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

- ‘Early Warnings For All initiative’ launched by UN Secretary General António Guterres in March 2022, to ensure every person on the planet is covered by an early warning system in the next five years.

- As coverage of warnings expands, inclusivity is critical to include those who are marginalised or require adapted or specific warning messages.
A group with a wide variety of abilities is often represented by a single icon: A wheelchair. Photo: Ilan Kelman

“Unity, not uniformity, must be our aim. We attain unity only through variety. Differences must be integrated, not annihilated, not absorbed”.

Mary Parker Follett
1. Disaster risk knowledge: integration from the first mile

- **Including** civil society groups, local leaders, and community-based organizations **at the start of the process** using participatory approaches as an entry point to make it relevant, more inclusive, and more likely to be accepted by society.

- **Understanding** where groups and individuals are and ensuring their involvement from the beginning of the EWS design stage is important for establishing multiway communication channels and factoring in feedback loops as early as possible.

- **Community actions** prior to hazards have demonstrated how warnings and early action are connected, building trust.

- **Supporting** accessible data, communication, and engagement opportunities.

- **Key to success is:** including the ‘end user’ as part of the first mile processes.
Developing Risk Awareness through Joint Action (DARAJA) project

DARAJA stakeholders, including Kenya Meteorological Department, Kenya Red Cross, community members, radio stations and project consortium, at the DARAJA co-design workshop in Nairobi (Source: P. Kipkemboi, 2019)
2. Observations, monitoring, analysis & forecasting: building capacity development & outreach

- A key entry point is **buy-in** from local communities, to foster diversity in processes, collaboration, and commitments.
- **Inclusion** of women and those with disabilities from community awareness negotiating tables helps address their needs and gender-sensitive approaches, and disability requirements to ensure safety.
- Develop robust **methodologies and guidelines** for assessing and subsequently enhancing inclusivity of EWS.
- Conducting **capacity development**, training, and outreach and awareness campaigns on EWS and community mobilization tailored to the intended audience.
  - **Key is Diversity, collaboration, and commitment**
Fiji Women’s Weather Watch

- Uses a community radio, linking a network of women leaders
- Offers multi-directional communication - provides vital information from and for the elderly, women and children in rural and remote communities and disabled and sexual minority groups, so that warnings better address intersectional local needs
3. Warning dissemination & communication: expanding inclusivity by raising awareness

- Developing communication, **redundancy**, adaptability, and creativity to enhance waning dissemination
- Ensure that warning **messages are communicated over various platforms** (digital and non-digital; formal and informal networks) and through a variety of media, and **CAP** to ensure consistency and inclusivity.
- **Engaging local leaders**, integrating local cultures and language, a public warning dissemination and communication programme to strengthen national resilience
- Using **technological advances** that help translate messages, generate captions, and read text out loud, among other innovations that can increase inclusivity for people with disabilities and elderly.
- **Ensuring understanding of communication needs** of vulnerable groups through surveys, focus groups, etc., to inform a warning communication strategy, and crafting fit-for-audience messages, channels, and messengers

- **Key is communications redundancy, adaptability, and creativity**
GET READY! A fitness dance class inspired by the science of climate impacts
4. Preparedness and response capacity: Building a local and national system

- Understanding **individual and collective risk** and how to respond to it with alert messaging to maintain the ability to respond safely and appropriately to warnings.
- Involving the entire community in **risk identification and management** facilitates gender-equitable, inclusive disaster preparedness providing a sense of collective responsibility for mitigating vulnerability and risk.
- **Conduct drills** and other training specifically for vulnerable groups.
- Support **community collaboration with local governments** regarding DRM, including female and minority groups.

➢ **Enhancing EWS by building on national and local systems**
Bangladesh's early warning systems uses a variety of communication methods, including TV and radio broadcasts, push messages via mobile phone networks, targeted SMS notifications, and a helpline which people can dial to listen to pre-recorded voice messages.

But the key to reaching as many people as possible – known as "the last mile" by disaster risk reduction experts – lies in the country's huge network of volunteers.
The Cyclone Shelter functions as primary school and day clinic during normal conditions.

All internal spaces are lit through recessed, egg-crate concrete windows, themselves opening into light and ventilation wells protected by the winding ramp.

**Cyclone Shelter**, 2018, Kuakata, Bangladesh. Copyright: Kashef Chowdhury, Courtesy: URBANA.

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All internal spaces are lit through recessed, egg-crate concrete windows, themselves opening into light and ventilation wells protected by the winding ramp.
Entry Points

To improve disaster risk reduction, it is important to collect and use disaggregated data on marginalized and vulnerable groups. This includes:
- establishing standardized repositories for demographic data and risk information
- incorporating vulnerability data into population assessments, ensuring interoperability between information systems
- applying community-based risk reduction approaches such as creating a social registry of vulnerable people and designing impact-based early warning systems

To improve inclusivity in disaster risk reduction, it is important to involve vulnerable populations in planning and implementing DRR projects and early warning systems. This includes:
- strengthening multisector coordination
- digitizing data
- monitoring gender-related spending
- conducting capacity development and outreach tailored to specific groups
- supporting connections between early warning committees and government officials
- developing robust methodologies for assessing and enhancing inclusivity in EWS

To improve the effectiveness and inclusivity of warning communication in disaster risk reduction, it is important to:
- use multiple communication platforms and media
- establish technical standards for accessibility
- mobilize the Common Alerting Protocol (CAP)
- ensure compliance with Web Content Accessibility Standards
- utilize technological innovations
- understand communication needs of vulnerable groups
- eliminate access barriers to mobile applications
- conduct training and awareness-raising campaigns
- communicate scientific information in nontechnical language
- involve vulnerable groups in early warning committees
- distribute test warnings to vulnerable groups
- train government officials on enhancing warning efficacy and targeting audiences

To enhance inclusivity in disaster risk reduction, it is important to:
- develop the capacity of DRM agencies to employ marginalized and vulnerable individuals
- increase the representation of women in decision-making positions
- involve minority and excluded groups in risk identification and management
- tailor disaster preparedness measures to different degrees of vulnerability
- use universal design in EWS and disaster management
- involve vulnerable groups in warning initiatives
- create volunteer networks with equal gender representation
- conduct training for vulnerable groups
- support community collaboration with local governments on DRM
5. The 5th Element: creating integration

The 5th element of inclusive EWS. Dr Carina Fearnley (adapted from The Core Pillar Report)
Three Essential Actions to Enhance Inclusivity

1. **Engage diverse communities and stakeholders from the beginning:** Finance continual engagement processes for people and organisations to identify and fulfil their own warning needs without excluding or inhibiting others.

2. **Integrate iteration and adaptive learning:** Collaborate with and be directed by people and organisations applying warnings to build trust and credibility for integrating long-term warning processes into everyone’s daily lives and governance practices.

3. **Support initiatives and activities that create an enabling environment:** Establish good practices, entry points, and comparable data while recognising limitations in safe data collection, replicability, transferability, and scaling.

> The evidence shows that taking practical approaches to inclusion in warnings has better outcomes and reaches more groups than one-size-fits-all models.
Inclusive Warnings
Involving everyone in warning processes

Key Points
- Listening: Everyone has something to contribute and to learn.
- Representation: Society’s diversity should always be involved.
- Redundancy: Use multiple media, forms, and formats.

State of the Art
Inclusive warnings are designed to support people to fulfill their own needs for warnings. No group is homogeneous, whether a specific gender or a general category such as people with disabilities. Preferences for and abilities with technology and interpreting information differ, so warnings should cover a variety of modes, messaging, exchanging, and formats. Using audio signals only, such as sirens, excludes people with limited hearing while using visual signals only, such as flashing lights, excludes people with limited vision. Evacuation routes requiring stairs inhibits people with mobility difficulties. Relying on a single technology, whether the internet or texting, could mean that people do not receive warning material when that technology fails. Tonga lost all internet access after a volcanic eruption in January 2022, but the country’s main link with the outside world. Non-technological approaches, including word-of-mouth and sitting in a circle to talk, can convince people how to act on hazard-related information far more readily than formal training.

Core Needs
The core need for inclusive warnings and anticipatory action plans is involving everyone and tailoring warnings to all people’s needs, not just the majority, by covering everyone’s characteristics - while considering them in combination (called “intersectionality”). Characteristics of individuals and groups include sex, gender, sexuality, age, race, ethnicity, caste, abilities (considering physical, mental, and cognitive), religion, belief systems, language, communication forms, and priorities which could mean being detained, undocumented, homeless, or seeking or having been denied asylum.

Recommendations / Guidance
Inclusive warnings:
- Are long-term social processes working with people to help them lead themselves.
- Use multiple channels, modes, and formats for communicating and exchanging [1].
- Are relevant to everyone, covering a range of timeframes and spatial coverage.
- Connect all governance levels, including local, national, and international.
- Extend beyond warning dissemination to include damage prevention/mitigation advice and actions.
- Facilitate early action and anticipatory actions, which will also contribute to reducing inequalities and inequities across society regardless of the hazard / threat.

To implement this requires:
- Focusing on the first mile rather than last mile – what do people and groups need to act on a warning?
- Developing successful policy and action through co-creation, co-production, and co-implementation.

Outputs:

Collaborators:

Partners:

Media:

www.ucl.ac.uk/sts/wrc
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Thank You!

Girls globally should be encouraged to be leaders for inclusive warnings (Photo: Ilan Kelman)