How Can We Enhance Inclusivity In Warnings?

Five Key Elements to Generate Inclusive Action for EWS & Communities

UNFPA/ Mbuto Machili

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UCL WARNING RESEARCH CENTRE

What is inclusivity in warning systems?

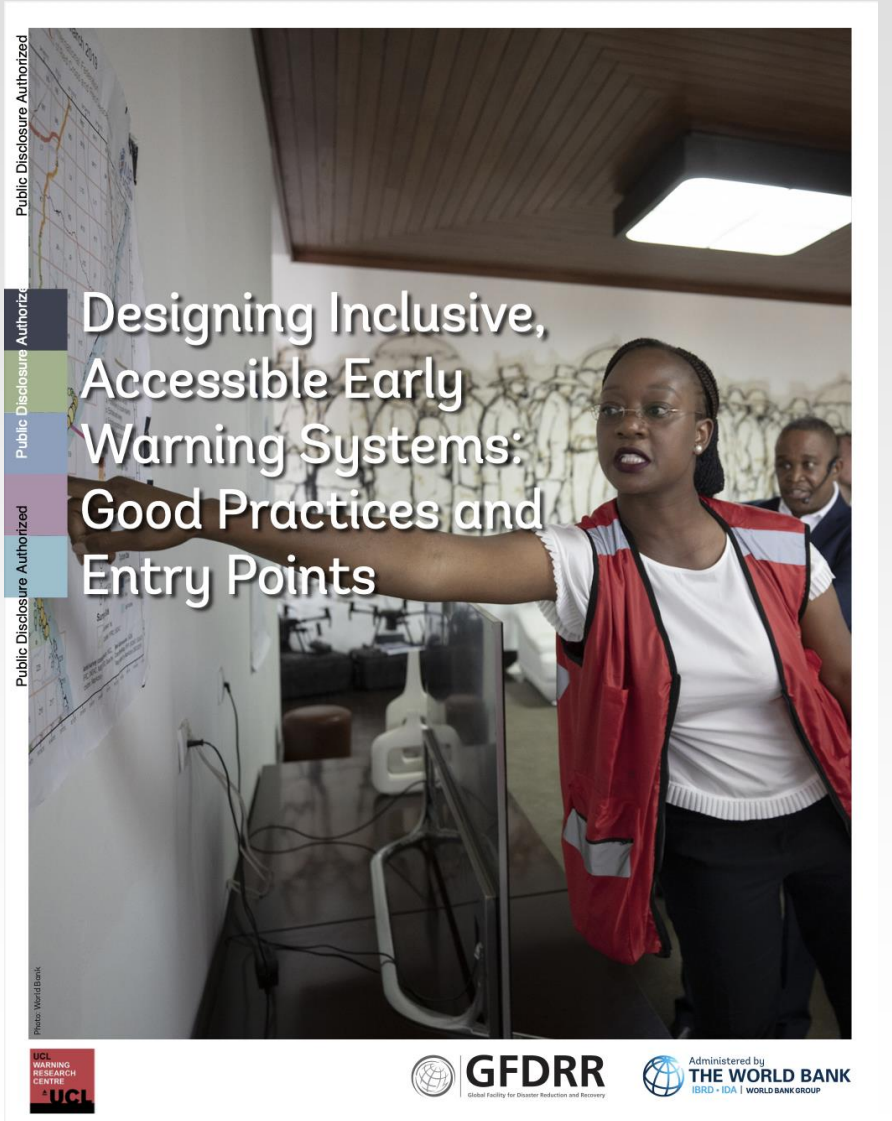
- Involving everyone in warnings and warning design requires covering and responding to everyone's characteristics, including:
  - Sex, gender, sexuality, age, race, ethnicity, caste, disabilities (e.g., physical, mental, and cognitive), religion, languages, communication forms, and precarity (e.g., 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

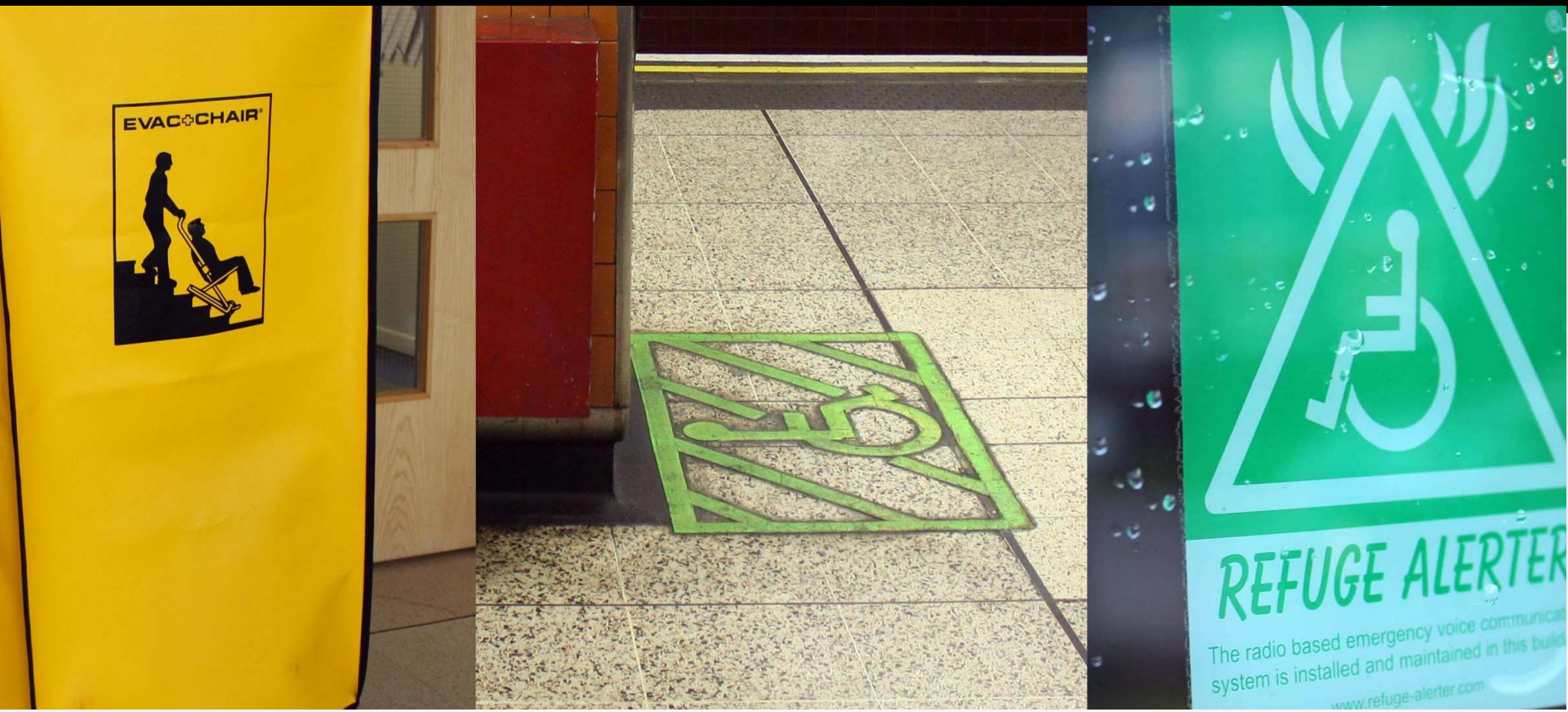
- **Inclusivity works beyond a single characteristic:** consideration must be given to those with multiple cross-cutting characteristics which are classed as **'intersectional'.** This can result in differential outcomes from warnings, even with the same warning context and information.

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.**

Community early warning systems: guiding principles

www.ifrc.org
Saving lives, changing minds.

International Federation of Red Cross and Red Crescent Societies

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

POLICYFORUM

CITIZEN SCIENCE

Next Steps for Citizen Science

Strategic investments and coordination are needed for citizen science to reach its full potential.

Rick Bonney,[1]† Jennifer L. Shirk,[1] Tina B. Phillips,[1] Andrea Wiggins,[2,1] Heidi L. Ballard,[3] Abraham J. Miller-Rushing,[4]* Julia K. Parrish[5]

Around the globe, thousands of research projects are engaging millions of individuals—many of whom are not trained as scientists—in collecting, categorizing, transcribing, or analyzing scientific data. These projects, known as citizen science, cover a breadth of topics from microbiomes to native bees to water quality to galaxies. Most projects obtain or manage scientific information at scales or resolutions unattainable by individual researchers or research teams, whether enrolling thousands of individuals collecting data across several continents, enlisting small armies of participants in categorizing vast quantities of online data, or organizing small groups of volunteers to tackle local problems.

Despite the wealth of information emerging from citizen science projects, the practice is not universally accepted as a valid method of scientific investigation. Scientific papers presenting volunteer-collected data sometimes have trouble getting reviewed and are often placed in outreach sections of journals or education tracks of scientific meetings. At the same time, opportunities to use citizen science to achieve positive outcomes for science and society are going unrealized. Here, we offer suggestions for strategic thinking by citizen science practitioners and their scientific peers—and for tactical investment by private funders and government agencies—to help the field reach its full potential.

Training for data-gathering. Women from Komo (Republic of the Congo) learning to map in the forest, as part of the Extreme Citizen Science (ExCiteS) Intelligent Maps project.

science projects, along with scientific reports and peer-reviewed articles resulting from their data, has expanded tremendously.

Much of this growth results from integration of the Internet into everyday life, which has substantially increased project visibility, functionality, and accessibility. People who are passionate about a subject can quickly locate a relevant citizen science project, follow its instructions, submit data directly to online databases, and join a community of peers.

tion possible for groups that previously were not reached or well served by citizen science, such as those with literacy or numeracy skills that are not text based (*2*).

Scientific Impact

Some people question the practice of citizen science citing concerns about data quality. With appropriate protocols, training, and oversight, volunteers can collect data of quality equal to those collected by experts (*3*). For

- Develop robust **methodologies and guidelines** for assessing and subsequently enhancing inclusivity of EWS.
- Conducting **capacity developmen**t, 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

At the Fiji Women's Weather Watch. Credit: LICE MOVONO

- 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**

Women community leaders. Photo Credit: World Bank

Bangladesh Cyclones

(Image credit: Catherine Davison)

- 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.

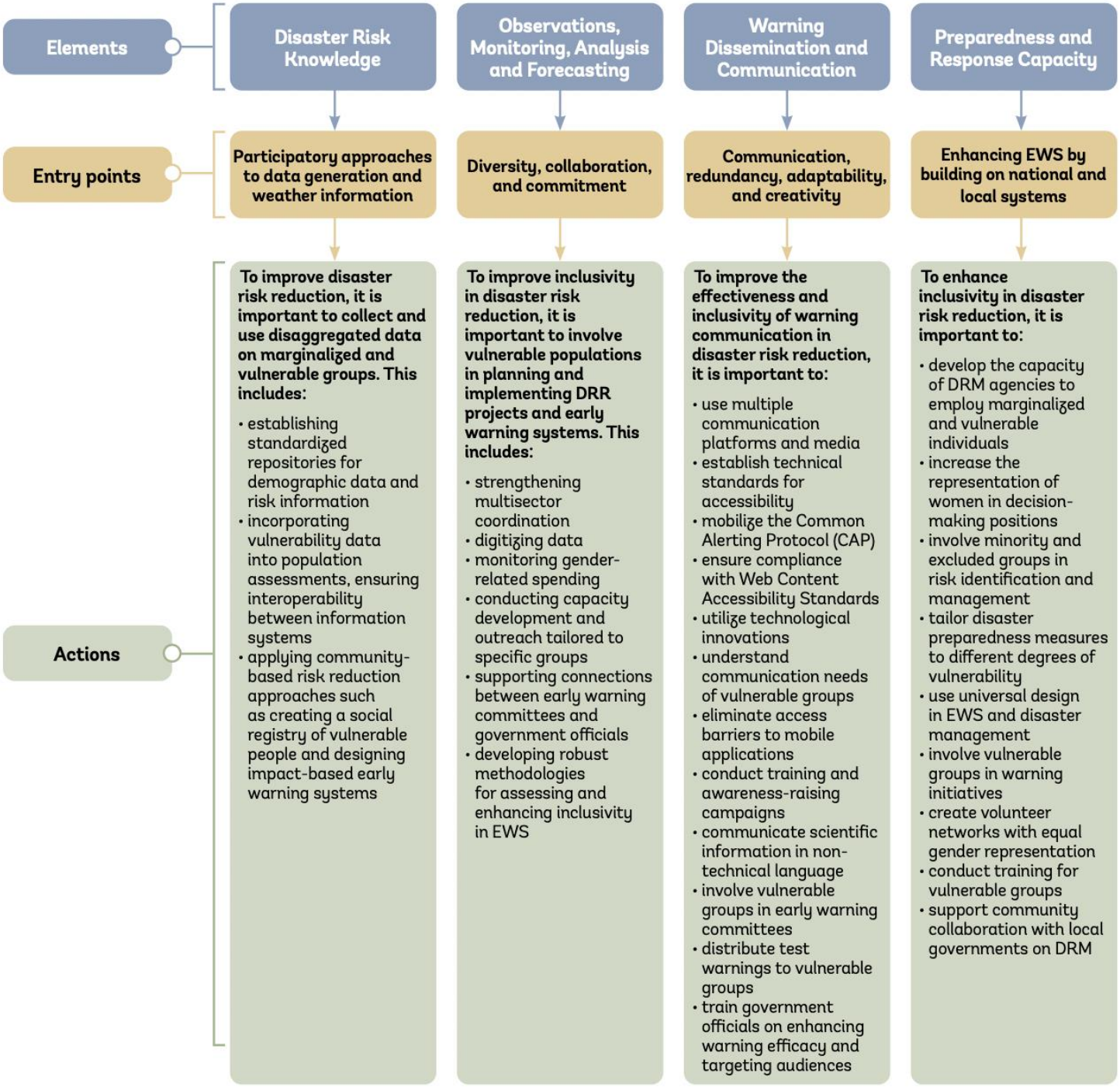
New Futures

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

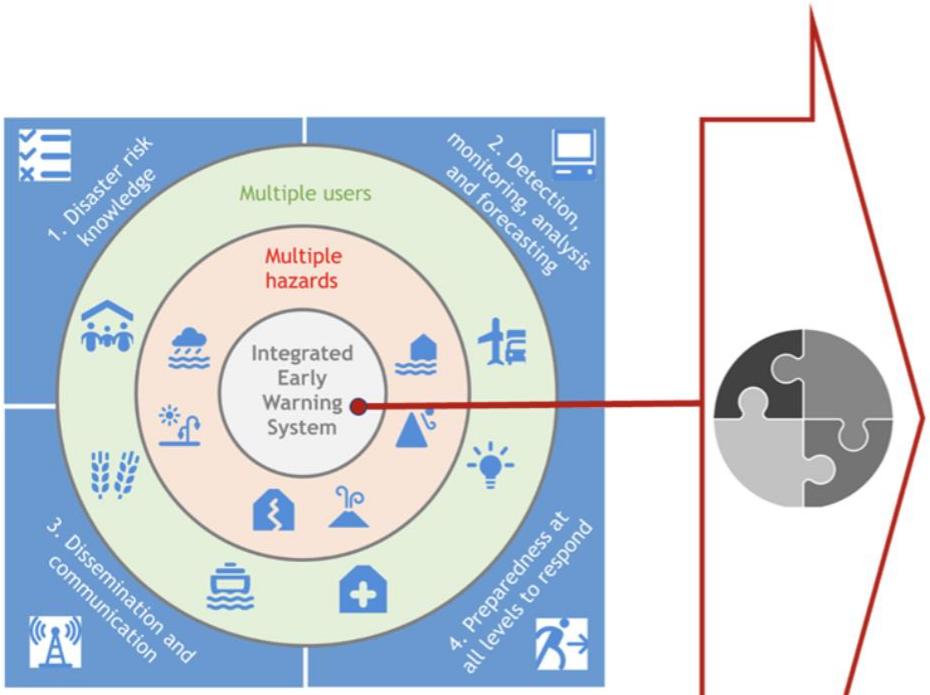
The Cyclone Shelter functions as primary school and day clinic during normal conditions.

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

Entry Points



5. The 5th Element: creating integration



5th Element

People-centred approaches integrated within each element

Fully integrated stakeholder and expert engagement within each element

Joined up planning, approaches and decision making processes across the elements

Building good governance by integrating the four elements, establishing effective decision-making processes adapted to the different contexts

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.

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Outputs:

WARNINGS BRIEFING NOTE

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 fulfil their own needs for warnings. No group is homogenous, 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 inhibit 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 cut 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, languages, communication forms, and precarity 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 action, 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.

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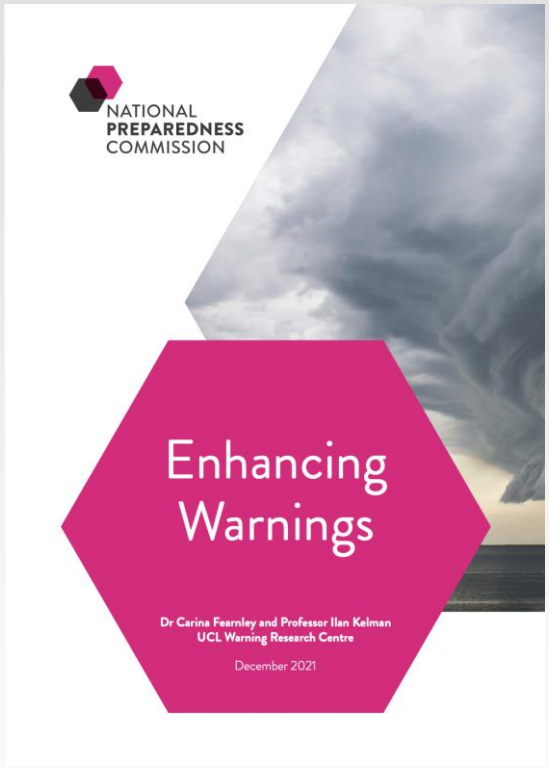

Collaborators:

GFDRR Global Facility for Disaster Reduction and Recovery — Administered by THE WORLD BANK IBRD • IDA | WORLD BANK GROUP

UNDRR UN Office for Disaster Risk Reduction

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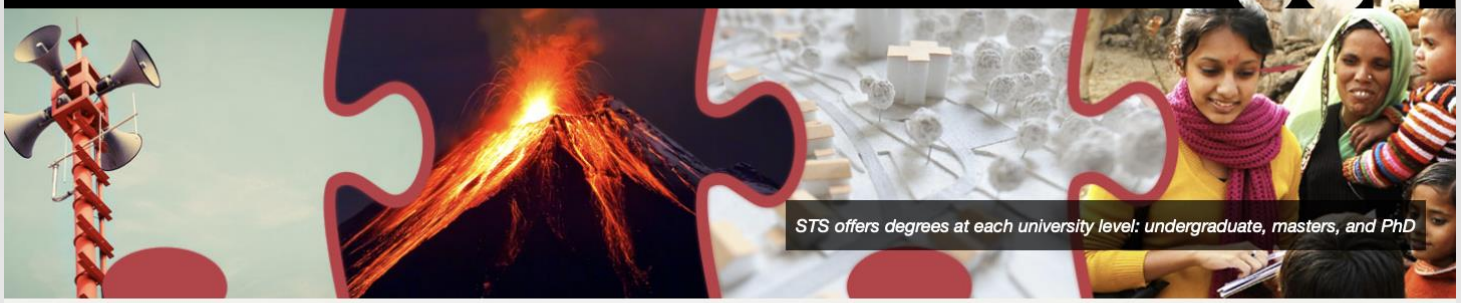

Creating Effective Warnings For All

Creating Effective Warnings for All - Logistics

Creating Effective Warnings for All - Programme

Creating Effective Warnings For All Conference

UCL's Warning Research Centre invites you to our upcoming conference, focussing on designing, implementing, and maintaining effective warnings, for all.

UCL Warning Research Centre's 'Creating Effective Warnings for All' Conference

Date: 11 - 13 September 2023

Location: UCL Institute of Child Health, 30 Guilford Street, London WC1N 1EH

Book In-Person Tickets:

In-Person Conference Tickets

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Thank You!

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