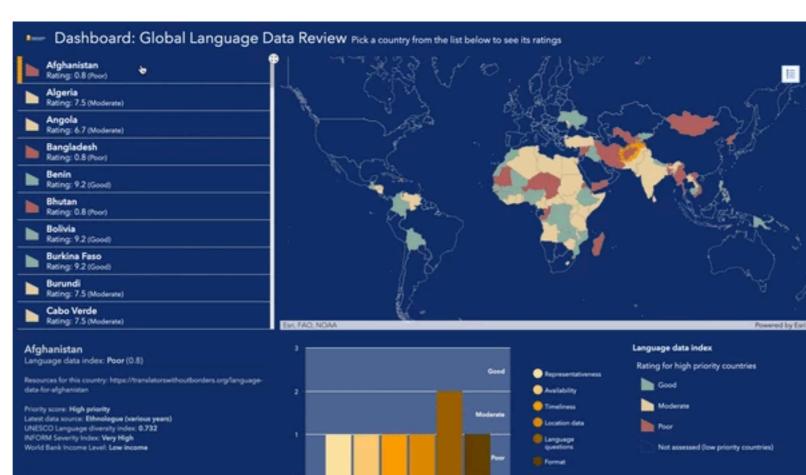


Building Inclusive Early Warning Systems: a Language Lens

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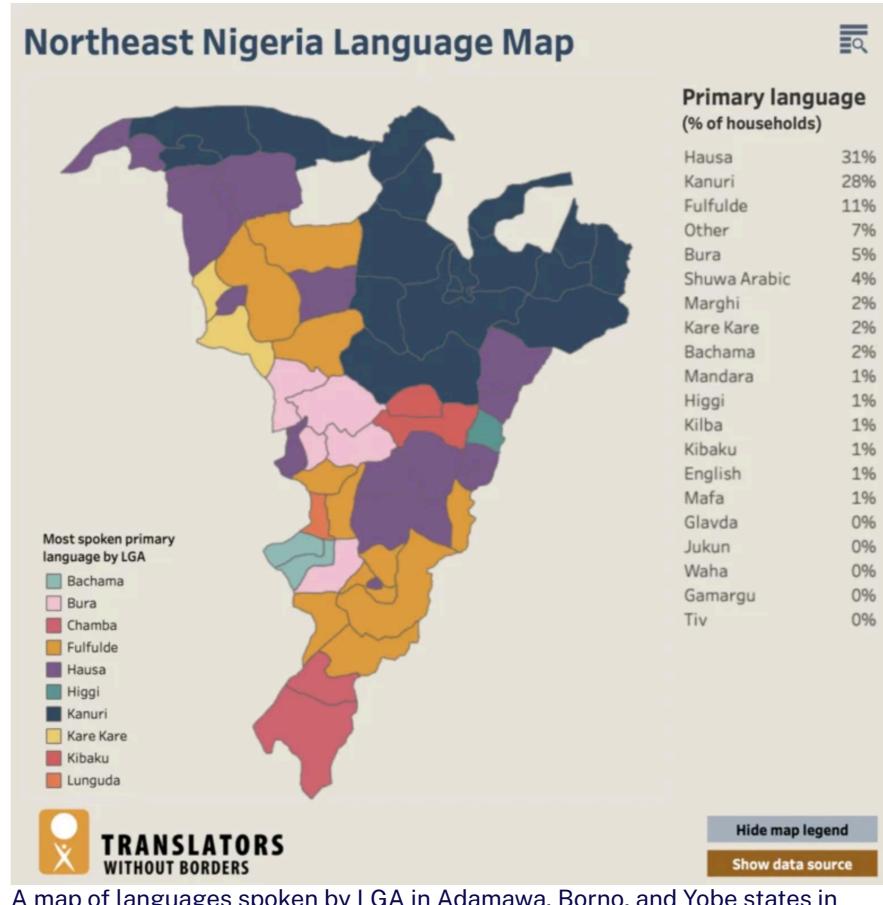
Early Action Partnership

Timely warnings during extreme events like floods and cyclones can save lives —but only if people can access and understand them. Currently, many early warning systems (EWS) rely heavily on written messages in national or official languages, often broadcast via cell phones. This approach excludes those who cannot read, access a phone, or speak the language in use — disproportionately affecting many groups that are especially vulnerable to climate change, like women, rural and Indigenous communities, and people with disabilities. Addressing these barriers is critical, as language remains a neglected aspect of EWS design and delivery.

Why language matters when disasters strike

NGO CLEAR Global's focus in climate emergencies is on ensuring people receive lifesaving information in a language they understand. This approach acknowledges that language barriers often compound challenges like food insecurity and limited resources for vulnerable groups. Climate change disasters have increased by 83% in the last 50 years, causing significant harm to agriculture, economies, and well-being.

CLEAR Global's work demonstrates the importance of inclusive communication in preparing for these disasters as well as in response. In the aftermath of Cyclone Idai in Mozambique, the organization provided translation into local languages after its research highlighted that over 40% of affected people didn't understand humanitarian communication in written Portuguese. Data ahead of time can enable better planning: mapping language and telecommunications data alongside flood risk in Pakistan supports responders in planning effective communication before the next disaster strikes. Initiatives like the multilingual glossary of terms related to childcentred disaster resilience developed with GADRRRES can help ensure early dialogue in the languages of communities at risk.



A map of languages spoken by LGA in Adamawa, Borno, and Yobe states in Nigeria. Language data is from the 2019 Multi-Sectoral Needs Assessment and is only based on sites that were accessible to REACH data collection teams. Access here: https://clearglobal.org/language-data-for-nigeria/

However, currently, most official early warnings are shared in the national and official languages of countries. CLEAR Global's research in contexts from Bangladesh to Nigeria and from DRC to Afghanistan shows far fewer people can comfortably understand these languages than organizations may assume.

The impact of inclusion across the EWS lifecycle

Effective EWS must integrate linguistic diversity alongside diverse perspectives throughout their lifecycle: design, development, dissemination, and operation. The inclusion of language is critical in participatory and decentralized approaches that engage a wide range of state and non-state actors, including local communities, civil society organizations (CSOs), and informal networks. REAP's policy brief on equality, diversity and inclusion for effective EWS highlights that language inclusion, paired with continuous feedback and evaluation, ensures systems remain adaptable and meet evolving needs.

Language inclusion must be considered at every stage, from initial risk assessment to dissemination and response. By utilizing local languages and fostering partnerships, EWS can bridge communication gaps and become more equitable, ensuring that vulnerable populations are adequately reached.

Language and multilingual contexts

In multilingual countries, the reach of national or official languages is often overestimated. For instance, CLEAR Global's work in northeast Nigeria revealed that while Hausa was the primary language for humanitarian communication, only 31% of people used it as their first language. Expanding to just three additional languages — Kanuri, Fulfulde, and Shuwa Arabic — could cover 74% of the population. This highlights the importance of data-driven decisions to ensure warnings reach their intended audiences.

Many multilingual regions, particularly in Africa, South and Central Asia, and the Americas, represent climate "hotspots." In such areas, language exclusion often overlaps with educational exclusion, disproportionately affecting women, people with disabilities, ethnic minorities, displaced populations, and other marginalized groups. Even when someone has access to a phone — commonly used to gauge the reach of warnings—language barriers or illiteracy may still prevent them from comprehending the message.

Local communicators and language capacity

Local communicators like radio broadcasters, schools, and religious leaders are also often trusted sources of information in emergencies. They play a critical role in disseminating preparedness and warning information to community members where official channels do not exist or are not accessible. Yet, these communicators are rarely equipped to understand and share complex information like weather predictions and preparedness measures across languages. They may be expected to sight-translate without support, risking inconsistency and mistranslation.

Because warnings are designed in national and official languages first, organizations can risk assuming more people understand these languages than is the reality. Decisions about what languages to invest in should be based on <u>data on language use</u>. In the dissemination of warnings, responsible authorities should recognize that language use varies greatly within countries and requires extra consideration in the context of migrant and displaced populations who may not understand any of the official language(s) of their host location. In support of this aim, CLEAR Global provides free, accessible data on language use for dozens of high-risk and crisis-affected contexts, helping challenge dominant assumptions.

Of course, it is impossible to cover every language in an emergency, but accessible data on language use helps make evidence-based decisions about the best languages to invest in and helps identify who is still at risk of exclusion.

Challenges and opportunities

Community engagement: Local communicators such as radio broadcasters, schools, and religious leaders play a vital role in disseminating information. However, they often lack the support needed to translate and relay complex weather data effectively. Investing in their capacity is essential for closing the last-mile gap in communication.

Governance and co-design: Establishing clear governance structures and involving local stakeholders in the co-design of EWS ensures that systems are contextually relevant. By including marginalised groups and considering their specific language needs, systems become more equitable and resilient.

Evidence-led approaches: One of the greatest challenges in EWS design is the tendency to assume that national or official languages reach all populations equally. To avoid these assumptions, EWS should be based on robust data on language use, literacy levels, and regional variations. This approach ensures that warnings are not just broadcast, but accessible to the populations who need them most.

Enhancing the skills of national meteorological and hydrological services: Essential for the effectiveness of EWS, especially in multilingual contexts. In particular, capacity-building efforts must include training on linguistic diversity and the need to communicate warnings in multiple languages. This includes fostering local leadership that can understand the systemic barriers to inclusion and address them, ensuring that language inclusivity becomes embedded in EWS design and operation. Ensuring trust through language inclusivity: Language is a key element of

understand fosters collaboration and strengthens resilience. When marginalized groups see their languages represented in early warning systems, it builds confidence in the system and ensures long-term community participation. Plain-language and multi-format communication: When not all the languages of at-risk groups can be catered for, applying plain-language principles and

trust-building and ensuring that warnings are accessible in languages people

relaying early warning messages in a range of text, audio, graphic and inperson forms can maximize accessibility for non-native speakers.

Making progress on language inclusion Inclusive EWS are not just a technical challenge but a socio-political one. As

REAP's policy brief highlights, embracing participatory and democratic approaches enhances both the effectiveness and the equity of these systems. By addressing language barriers, additional forms of exclusion and marginalization, fostering multi-stakeholder engagement, and scaling inclusive practices, we can ensure that EWS truly leave no one behind. As we advance the agenda for universal EWS coverage, we must remind

ourselves of the power of language and participation as drivers for resilience and equity in disaster risk reduction.

ADDRESS

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