POLICY BRIEF

Leveraging Assistive Technology for Inclusive Disaster Risk Reduction and Climate Action

ATscale
GLOBAL PARTNERSHIP FOR ASSISTIVE TECHNOLOGY

Hosted by UNOPS

UNDRR
UN Office for Disaster Risk Reduction

ATscale GLOBAL PARTNERSHIP FOR ASSISTIVE TECHNOLOGY

Hosted by UNOPS

ATscale, the Global Partnership for Assistive Technology, is a cross-sector global partnership with a mission to transform people's lives through assistive technology. It catalyses action to ensure that, by 2030, an additional 500 million people in low- and middle-income countries get the life-changing AT they need.

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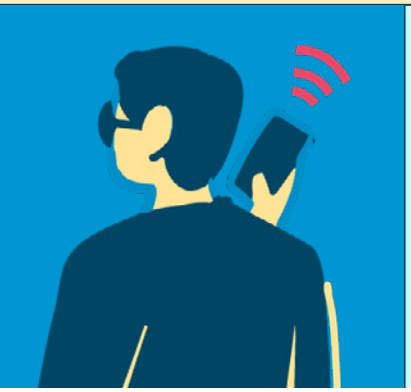

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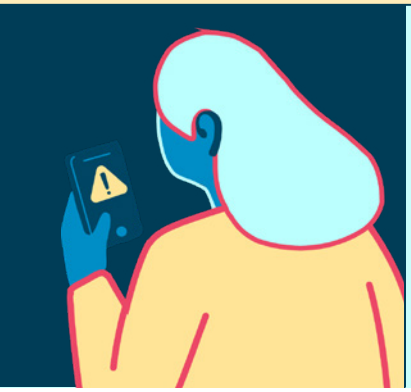

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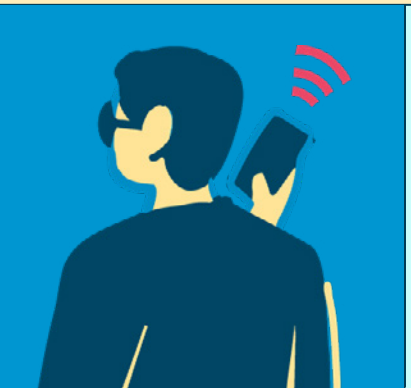
For additional information, please contact:
United Nations Office for Disaster Risk Reduction (UNDRR)
7bis Avenue de la Paix, CH1211 Geneva 2, Switzerland, Tel: +41 22 917 89 08



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ATscale, the Global Partnership for Assistive Technology (ATscale) leads: Kinley Wangmo (senior programme manager), and Satish Mishra (head of global programmes) with significant contributions from Henri Bonnin (senior programme manager), and Emma Curati Alasonatti (programme intern).

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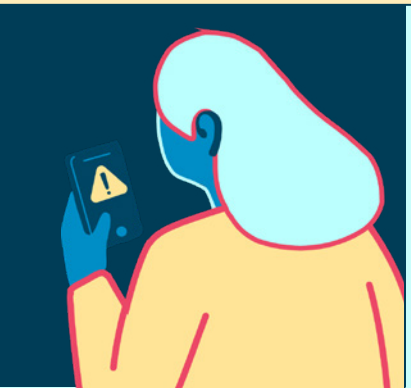
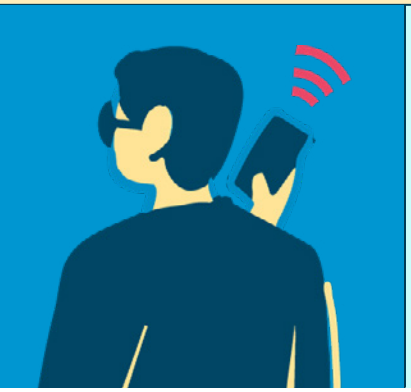


Note on terminology

Throughout this document, the term assistive technology users refers to all people who rely on assistive products to support functioning, communication, mobility, learning or participation. This includes many women, men and children with disabilities, older persons, persons with chronic health conditions and others who may not self-identify as having a disability.

Inclusive DRR and climate action must reflect this diversity, as disruptions in access to assistive technology can place these groups at greater risk. Planning, service delivery and advocacy grounded in this understanding help build systems that are responsive, equitable and resilient for all.



Executive Summary

Climate-related disasters are becoming more frequent, intense and unpredictable, exposing deep inequalities in how communities prepare for and respond to risk. Among those most affected are persons with disabilities, including women, girls, and gender-diverse population, older persons and others who rely on assistive technology. Yet, they are routinely overlooked in disaster risk reduction (DRR) and climate adaptation efforts, facing barriers that limit their safety, independence and access to life-saving support.

In response, the United Nations Office for Disaster Risk Reduction (UNDRR) and ATscale, Global Partnership for Assistive Technology undertook a global study and developed this policy brief to examine how the rights and needs of assistive technology users can be more effectively addressed in DRR and climate action. Findings from the study – based on inputs from nearly 300 stakeholders across 90 countries – highlight major gaps in inclusive policy, planning and service systems. These findings build on insights from the 2023 UNDRR Global Survey on Persons with Disabilities in Disasters,[1] which highlighted persistent barriers to safety, communication, and access to services across diverse crisis contexts.

Assistive technology users are often invisible in data systems, excluded from early warning and preparedness planning, and not facilitated in emergencies due to missing or inappropriate assistive products. Stockpiles frequently contain ill-suited devices, supply chains are poorly coordinated, and rehabilitation services are either underfunded or non-existent. Infrastructures such as emergency shelters are rarely designed to accommodate assistive technology users and communication barriers persist from early warning to recovery. Without leadership, financing or clear institutional responsibilities, assistive technology needs are deprioritized or ignored. These structural issues – combined with

1 UNDRR (2023). Global Survey on Persons with Disabilities in Disasters. United Nations Office for Disaster Risk Reduction: https://www.undrr.org/report/2023-gobal-survey-report-on-persons-with-disabilities-and-disasters

intersectional needs related to disability, gender, age and socioeconomic status, along with stigma, financial constraints and limited community-level engagement – compound risk and deepen exclusion during crises.

The policy brief outlines clear and actionable recommendations to address these challenges. Preventive measures must prioritize assistive technology inclusion before crises occur, embedding it into early warning systems, contingency planning, and anticipatory financing to reduce risk and safeguard lives. To build responsive, inclusive, and resilient national systems, it is essential that governments, humanitarian actors, and donors engage meaningfully with organizations of persons with disabilities (OPDs) and assistive technology users. This engagement should prioritize co-design approaches, ensuring that persons with disabilities are actively involved in shaping solutions that affect their lives.

The following call to action outlines key priorities for advancing inclusive disaster and climate action:

- Access to assistive technology is a recognized right, not an optional add-on.
- Inclusive prevention is not a luxury—it is a necessity. Inclusive DRR and climate action must begin with proactive measures that protect assistive technology users from foreseeable risks and disruptions.
- Assistive technology saves lives in emergencies, but only when delivered with other essential inclusion measures. Together, they must be recognized as key enablers of inclusive DRR and climate action.
- Assistive technology is a humanitarian and development priority. It helps build resilience, inclusion and independence in everyday life, not just during disasters.
- Governments are responsible to ensure assistive technology is available, accessible and affordable for all who need it.
- Assistive technology users must lead, supported by political will, sustained financing and meaningful systems change.
- Governments and key sectors—including DRR, climate, health, and social protection—must be co-designed with OPDs and users, especially women and girls with disabilities, solutions should be embedded across preparedness, early warning, and risk communication systems.
- Disasters don’t discriminate—but exclusion does. Failing to include assistive technology users puts lives at risk. Immediate action is not optional.”

Realizing inclusive DRR and climate action requires more than policy alignment. It demands deliberate investment, coordinated action and the leadership of assistive technology users at every level. Access to assistive technology is recognized as a human right and a lifeline: essential for dignity, health and participation in crisis settings. Yet, in disaster- and climate-related contexts, environmental degradation and social disruption intensify the barriers assistive technology users already face. These conditions can severely limit access to services, mobility, communication and participation. They pose risks that, for some, may be life-threatening. Therefore, assistive technology and its support systems –maintenance, user training and service provision – must be recognized as core enablers of resilience.

However, assistive technology cannot function in isolation. Its impact depends on accessible environments, rehabilitation, inclusive support systems, social protection and non-discrimination. These interconnected components must be embedded across risk governance and preparedness efforts. Their integration is vital to upholding rights, ensuring safety and enabling full participation in times of crisis.

This policy brief outlines clear and actionable steps for governments, humanitarian and development actors, donors, civil society and the private sector. The evidence is clear: inclusive systems are possible, effective and urgently needed. The leadership of assistive technology users and their representative organizations – grounded in lived experience – must guide this shift. But leadership must be matched by political will, sustained financing and systems capable of delivering at scale. These recommendations offer a road map to act, not after the next disaster but now. Every delay compounds risk. Every step forward builds a more inclusive, just and resilient future.

A gender lens is essential in every phase of disaster and climate action. Women, girls and gender-diverse persons with disabilities face unique barriers to accessing assistive technology, including mobility restrictions, caregiving responsibilities, gender-based violence, and exclusion from decision-making. Addressing these challenges requires gender-responsive policies, targeted outreach, and the active inclusion of gender-diverse voices in DRR and climate planning.

Overview

Climate-related disasters are becoming more frequent, intense and unpredictable, exposing deep inequalities in how communities prepare for and respond to risk.

Among those most affected are persons with disabilities, older persons and others who rely on assistive technology such as communication boards, memory aids, hearing aids, wheelchairs, prostheses, white canes and screen readers. These products support functioning across cognition, communication, hearing, vision, mobility and self-care.

Yet, assistive technology users are often overlooked in disaster risk reduction (DRR) and climate adaptation efforts, facing barriers that limit their safety, independence and access to life-saving support. These exclusions are compounded by gender inequalities: women, girls, and gender-diverse persons with disabilities are more likely to be excluded from decision-making, experience poverty, and face discrimination that limits their access to assistive products and services. Gender and social norms may also restrict their mobility or exposure to information before, during, and after crises. These challenges are further reinforced by definitions and data systems that fail to capture the full diversity of assistive technology users. Many – particularly older men, women and those with chronic health conditions – may not identify as persons with disabilities but still depend on assistive technology to maintain their functioning, dignity and inclusion. When unrecognized, their requirements are often left out of preparedness and response efforts with non-gender responsive assessments further deepening these gaps.

In many contexts – including across parts of the Pacific – assistive technology access is limited even outside of emergencies. Women and girls with disabilities are especially likely to experience lower access due to economic dependence, caregiving roles, stigma, and lack of gender-responsive services. For some, disasters are not only moments of assistive technology loss, but the first time they access essential products. Strengthening Preventive systems must proactively identify and address barriers to assistive technology access, ensuring that users are not only supported during emergencies but protected from avoidable harm through inclusive preparedness.

These challenges are compounded by weak service systems, particularly in assistive technology, rehabilitation, and care and support systems. While assistive technology refers to products and services that support or improve functional ability, rehabilitation reduces the impact of health conditions on daily life. In crisis settings, both enable people to move, communicate and act safely. Ensuring coordinated access helps reduce risk, uphold dignity and support continuous, integrated risk governance. Furthermore, embedding access to assistive technology within rights-based care and support systems can ensure that services are not only available and accessible, but also designed to uphold autonomy, equality and inclusion, empowering individuals to live independently and participate fully in society, even in times of crisis.

Box 1. Understanding assistive technology

Assistive technology is an umbrella term for assistive products and their related systems and services. Assistive products help maintain or improve an individual's functioning related to cognition, communication, hearing, mobility, self-care and vision, thus enabling their health, well-being, inclusion and participation.

Source: World Health Organization (WHO), 2024[2]

Assistive technology enables and promotes the inclusion, participation and engagement of persons with disabilities, ageing populations and people living with chronic conditions in the family, community and all areas of society, including the political, economic and social spheres. Assistive products can enhance performance in all key functional domains such as cognition, communication, hearing, mobility, self-care and vision.

Source: WHO and the United Nations Children's Fund (UNICEF), 2022[3]

The Convention on the Rights of Persons with Disabilities provides a framework to understand access to assistive technology as a right, as reflected in Article 4 on General Obligations, Article 20 on Personal Mobility, Article 26 on Habilitation and Rehabilitation, Article 29 on Participation in Political and Public Life, and Article 32 on International Cooperation. This framework also applies to situations of disaster, as outlined in Article 11 on Situations of risk and humanitarian emergencies.[4]

2 WHO, 'Assistive technology', at www.who.int/news-room/fact-sheets/detail/assistive-technology, accessed August 2025.

3 WHO and UNICEF (2022) Global report on assistive technology, at https://iris.who.int/bitstream/handle/10665/354357/9789240049451.

To address these gaps, the United Nations Office for Disaster Risk Reduction[5] (UNDRR) and the ATscale, the Global Partnership for Assistive Technology[6] (ATscale) have joined efforts to promote the meaningful inclusion of assistive technology users in DRR and climate action. UNDRR leads global efforts to implement the Sendai Framework for Disaster Risk Reduction 2015-2030[7] (Sendai Framework), while ATscale brings together governments, donors, global experts and other stakeholders to drive access to affordable, appropriate and quality-assured assistive technology. Together, the aim is to ensure that assistive technology is recognized and integrated into inclusive DRR and climate strategies.

To inform this work, UNDRR and ATscale conducted a global study in early 2025 to explore how the needs and rights of assistive technology users can be more effectively integrated into disaster- and climate-related systems. The study reviewed policies, frameworks and practices, and engaged 300 stakeholders from 90 countries – including survey respondents and participants in key informant interviews and focus group discussions.

More than half of participants were assistive technology users, including persons with disabilities and older persons. Others included: organizations of persons with disabilities (OPDs); civil society actors; humanitarian and DRR stakeholders; United Nations organizations; government officials; rehabilitation professionals; assistive technology developers and service providers; technical experts; and academia. Their insights have shaped this report, which presents key findings and actionable recommendations to guide inclusive action across DRR and climate resilience efforts.

2 WHO, 'Assistive technology', at www.who.int/news-room/fact-sheets/detail/assistive-technology, accessed August 2025.

3 WHO and UNICEF (2022) Global report on assistive technology, at https://iris.who.int/bitstream/handle/10665/354357/9789240049451.

4 Convention on the Rights of Persons with Disabilities | OHCHR.

5 UNDRR, 'Homepage', at https://www.undrr.org/, accessed August 2025.

6 ATscale, 'Global Partnership for Assistive Technology', at https://atscalepartnership.org/, accessed August 2025.

7 UNDRR (2015) Sendai Framework for Disaster Risk Reduction 2015-2030, at https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf),

1 Challenges faced by assistive technology users in disaster- and climate-induced emergencies

Assistive technology plays a vital role in ensuring safety, mobility, communication and dignity for many persons with disabilities, older persons and others with functional difficulties. In emergencies, access to assistive technology can mean the difference between life and death. Yet, throughout disaster preparedness, response and recovery, assistive technology users face systemic barriers that compromise their safety, resilience and ability to access life-saving support. These challenges are often magnified for women, girls, and gender-diverse persons with disabilities, who face compounding risks due to gender inequality, caregiving responsibilities, poverty, limited access to information, and heightened exposure to violence in crisis settings. The 2023 UNDRR Global Survey provided critical evidence of these challenges, with responses from 248 persons with disabilities across multiple regions underscoring widespread exclusion from preparedness systems, inaccessible shelters, and lack of inclusive early warning. Preventive action is critical to reducing the vulnerability of assistive technology users. Many of the challenges outlined below can be mitigated or avoided through inclusive planning, early investment, and community-based preparedness.

A man using a hand-powered tricycle navigates through a flooded street in front of small shops during heavy rain.

Photo credit: Mukesh Kumar Jwala, IDA

The following bullet points consolidate **key challenges faced by assistive technology users in disaster- and climate-related contexts. These findings are grounded in the perspectives of 300 stakeholders across 90 countries—drawn from a global survey of 248 respondents and targeted consultations with 52 key actors in six countries:**

- **Loss or damage of assistive products:** Devices are often destroyed during disasters or abandoned during evacuation. Replacement is rarely immediate due to lack of stockpiles and poor supply chains. Women and girls may be less likely to report damage or seek replacements due to fear of stigma or restricted mobility.

  "My assistive device broke during evacuation, and there was no way to replace or repair it. I had to rely on others for everything."

  – Survey respondent, Philippines

- **Limited access to repair and maintenance:** Trained technicians, spare parts and repair services are scarce. Even when the need is clear, service disruption and financial costs prevent access. For women with disabilities, particularly in rural areas, travel to repair sites may be unsafe or culturally restricted.

  "Maintenance is a luxury. Once something breaks, we either improvise or give up using it."

  – OPD representative, Ethiopia

- **Inaccessible infrastructure and disrupted functionality:** Many assistive technology users cannot evacuate or reach safety due to inaccessible shelters, broken roads, or lack of ramps and signage. Devices may also fail in rugged terrain or when power is unavailable. Shelters often lack gender-sensitive arrangements, exposing women and girls with disabilities to additional risks.

"The wheelchair I use is not designed for rough terrain. During floods, I cannot move at all. I feel trapped."

– Woman who is deaf with mobility impairment, Kenya

- **Inaccessible communication, risk information and early warning systems:** Alerts are often not provided in formats accessible to persons with diverse communication and information access requirements. Two-way communication mechanisms also tend to exclude many users.

"I never receive early warnings in a format I can understand. Sirens do not help me as a person who is deaf."

– Survey respondent, Colombia

- **Psychosocial impacts and exclusion:** Loss of assistive technology, uncertainty, and lack of access to information or services cause anxiety, distress and fear. People report feeling invisible, helpless or abandoned during disasters.

"The worst part was not knowing what was happening and no one explaining anything. I thought I would die there."

– Assistive technology user, Africa

- **Financial barriers:** Many cannot afford to repair or replace assistive technology. In emergencies, reduced income and lack of insurance or social protection deepen these barriers. Women with disabilities often have fewer financial resources, limited access to credit, and are more likely to be excluded from social protection schemes.

"I had to wait for three months to get a new crutch after mine was damaged in the cyclone. I could not afford to buy one myself."

– Assistive technology user, Pacific

- **Disrupted support networks:** Caregivers and family members are often displaced or unavailable during disasters, leaving users without critical assistance for movement, communication or daily tasks. Women and girls with disabilities may be disproportionately affected, especially if they rely on female caregivers or are caregivers themselves.
- **Stigma and lack of awareness:** Invisible disabilities, such as cognitive or psychosocial disabilities, are often unrecognized or misunderstood, leading to exclusion from planning and services. Gender stereotypes can further marginalize women and girls with invisible disabilities.
- **Intersectional risks:** Women, children, older persons and displaced persons who use assistive technology face compounded risks, including violence, neglect and barriers to participation.

"As a woman with a disability, I feel invisible in shelters. There is no privacy, no support. We are always last to be considered."

– Female assistive technology user, Asia

- **Data and inclusion gaps:** Many assistive technology users are not identified or included in humanitarian assessments. The absence of national data on AT users further compounds this invisibility. As a result, their needs are missing from preparedness, response and funding plans. Disaggregated data by sex, age and disability is rarely collected, limiting the ability to plan disability inclusive gender-responsive interventions.

Box 2. Voices of assistive technology users: Global survey findings (UNDRR and ATscale, 2025)

- **A majority of respondents reported problems with the reliability and suitability of their assistive products – issues present in daily life and often worsened during disasters – along with ongoing concerns about cost, information and availability.**
- **Only 13 per cent said their assistive product fully met their needs in emergencies.**
- **Nine per cent experienced complete failure of their assistive product during a disaster.**
- **only 23 per cent felt the assistive products provided in emergencies were appropriate for their local context and needs.**
- **Nearly half had problems with maintenance and repair.**
- **Only 15 per cent had adequate access to local support services.**
- **Several Respondents described assistive technology provision as fragmented, inconsistent and poorly coordinated.**

These findings reinforce that barriers to assistive technology are not isolated: they reflect persistent inequalities in planning, financing, infrastructure and inclusion across disaster systems.

2 Policy and institutional gaps for inclusive assistive technology in disaster and climate contexts

Access to assistive technology is a human right and a critical facilitator of participation, independence and safety – both in everyday life and in crisis situations. Yet, despite growing global recognition, assistive technology remains largely overlooked in DRR and climate action, especially in ways that account for the diverse and intersectional needs of users, including those shaped by disability, gender, age, and displacement status. Prevention must be a guiding principle in policy design. Inclusive DRR and climate frameworks should not only respond to crises but anticipate and prevent exclusion through integrated assistive technology systems. This section highlights key policy and system gaps that continue to limit the availability, accessibility and sustainability of assistive technology – demonstrating how these structural barriers exclude assistive technology users, from equitable access to services and protection, particularly in the face of intensifying and recurring climate-related crises.

A young American Red Cross volunteer prepares to help out during a "Sound the Alarm" event in Raleigh, North Carolina.

Photo credit: Adam Jennings for the American Red Cross

1. Weak policy integration, leadership and coordination

Despite its importance, assistive technology is often absent from DRR, climate, emergency preparedness and response frameworks. Where mentioned, it is rarely translated into budgets, operational protocols or coordination mechanisms. Data from the Global Report on Assistive Technology[8] show that only 20 per cent of countries have regulations including assistive products in emergency preparedness and just 23 per cent have standards for accessible environments during emergencies (World Health Organization [WHO] and United Nations Children's Fund [UNICEF], 2022).[9] These omissions disproportionately affect marginalized users.

Rehabilitation services – essential to assistive technology provision – are also poorly integrated into emergency systems. For example, a WHO review found only Nepal had included rehabilitation in national emergency health plans.[10] The absence of such services has gendered impact, for instance, women and girls with disabilities are observed to be less likely to access timely rehabilitation due to social, financial, or cultural barriers, especially during displacement or in overcrowded shelters where their privacy and safety may be compromised less likely to access timely rehabilitation due to social, financial, or cultural barriers, especially during displacement or in overcrowded shelters where their privacy and safety may be compromised.

Leadership on assistive technology is often fragmented. No single ministry or agency typically claims responsibility for assistive technology in emergencies, leading to gaps in planning and delivery.

"Our disaster agency says it is a health issue. Health says it is social affairs. Social affairs says it is the nongovernmental organization's job."

– Government official, Southeast Asia (stakeholder consultation, 2025)

8 WHO and UNICEF (2022) Global report on assistive technology, at https://www.who.int/publications/i/item/9789240049451, accessed August 2025

9 WHO and UNICEF (2022) Global report on assistive technology, at https://www.who.int/publications/i/item/9789240049451, accessed August 2025

10 WHO (2023) Strengthening rehabilitation in health emergency preparedness, readiness, response and resilience, at https://www.who.int/publications/i/item/9789240073432, accessed August 2025

Global coordination systems mirror this fragmentation. Humanitarian clusters lack clear roles for assistive technology. Emergency medical teams focus on trauma but not ongoing assistive technology needs. Protection stakeholders providing case management services during crises often identify individuals who may benefit from assistive technology but frequently lack the technical capacity to ensure access or establish adequate referral pathways to connect those in need with appropriate service providers. OPDs are often excluded from coordination or consulted too late to influence decision-making or shape response strategies. This gap is even more acute for women-led OPDs, who face additional barriers to participation and influence.

Gender-responsive leadership and coordination are essential to ensuring assistive technology systems meet the needs of all users, especially those who are most marginalized. Governments and humanitarian actors should establish clear institutional mandates, allocate resources, and engage diverse stakeholders, including women and gender-diverse persons with disabilities, to build inclusive, accountable, and resilient systems.

“We were invited to the coordination meeting – after it ended.”

– OPD representative, East Africa
(stakeholder consultation, 2025)

2. Inadequate data and needs identification systems

Most national data systems do not adequately capture information about assistive technology users, their needs and how these change during emergencies. Current health, disability and population data systems tend to focus on impairments or diagnoses, with limited integration of functional data or information specific to assistive technology. Health information systems, for example, may record clinical conditions but rarely link this data to assistive product requirements or service continuity. Likewise, disability registries often omit older persons, those with chronic health conditions, or people with temporary or fluctuating functional limitations.

Census and household surveys – such as those using the Washington Group Questions[11] – are designed to identify persons at risk of disability-related exclusion. However, these tools are not functional assessments and do not capture assistive technology use, suitability or needs. In fact, some persons who rely on assistive technology no longer meet disability screening thresholds once their needs are met, making them invisible in data sets and planning processes.

“We cannot plan for what we do not see. And right now, assistive technology users are invisible on every data sheet.”

– Government representative, West Africa (stakeholder consultation, 2025)

11 Washington Group on Disability Statistics, ‘WG Short Set on Functioning (WG-SS)’, at https://www.washingtongroup-disability.com/question-sets/wg-short-set-on-functioning-wg-ss/, accessed August 2025.

These gaps are magnified during emergencies. Disasters frequently disrupt assistive technology use – causing loss, damage or new functional needs – yet emergency assessments rarely address assistive technology continuity or replacement. Most rapid assessments focus on immediate clinical or logistic needs, with limited attention to assistive technology provision, repair or referral pathways. To close these gaps, national governments may integrate data related to assistive technology into disaster registries, health information systems and social protection databases, disaggregated by sex, age, disability, and type of assistive technology used. This includes tracking assistive technology use, loss or damage during emergencies, and evolving needs. Linking assistive technology data with broader disaster and health systems enables more disability inclusive and gender responsive planning, inclusive budgeting and continuity of inclusion process during crises.

Promising tools offer potential solutions. The Humanitarian Disability Needs Estimation and Screening Tool,[12] developed by the Nossal Institute for Global Health,[13] provides a structured approach for embedding assistive technology into emergency needs assessments. Similarly, the WHO's Rapid Assistive Technology Assessment (rATA)[14] is generating valuable population-level data on assistive technology users that can inform investment and service planning. However, uptake of both tools remains limited, and they are not yet systematically integrated into humanitarian action at the global level.

"There is no point in counting persons with disabilities if you do not ask what they need to survive a flood."

– OPD member, Pacific (stakeholder consultation, 2025)

12 Robinson A (2023), Humanitarian Disability Needs Estimation and Screening Tool (HD-NEST) at https://mspgh.unimelb.edu.au/__data/assets/pdf_file/0005/5131850/Disability-data-tools-review.pdf, accessed August 2025

13 Melbourne School of Population and Global Health, 'Nossal Institute for Global Health', at https://mspgh.unimelb.edu.au/centres-institutes/nossal-institute-for-global-health, accessed August 2025.

14 WHO, 'Rapid assistive technology assessment', at https://at2030.org/rapid-assistive-technology-assessment, accessed August 2025.

3. Gaps in procurement, stockpiling and supply systems

Many countries rely entirely on imported assistive products, resulting in poor contextual fit, supply delays and high costs – especially during crises. Local production capacity is limited, and procurement is often not aligned with age, gender, and functional needs of AT users.

"After the cyclone, the donated wheelchair lasted four days. Then the wheels collapsed in the mud."

– Disability rights advocate, Bangladesh (stakeholder consultation, 2025)

Stockpiling systems for assistive technology are rarely fit-for-purpose. Most assistive technology requires matching to a person's functional profile: size, age and context. Yet, prepositioned stock is often generic, ill-suited or stored in inaccessible locations.

"We had stock, but it was all too big. Children got adult chairs. It was not safe."

– Stakeholder consultation, 2025

Provision systems also lack coordination with rehabilitation services and emergency responders often arrive with no assistive technology at all. Examples from Australia (modular kits), UNICEF (layered stockpiling) and ATscale's Emergency AT Preparedness programme[15] show that contextual design, local engagement, targeted design and trained personnel can improve results, but such models are not yet the norm.

15 Momentum Wheels for Humanity, 'Emergency AT Preparedness', at https://momentum4humanity.org/our-projects/emergency-at-preparedness/, accessed August 2025.

4. Limited service capacity, training and follow-up

Assistive technology continues to be perceived as niche or optional, rather than recognized as an essential component of health and protection systems. Many responders lack the training to assess assistive technology needs or to refer individuals to appropriate services. Even when assistive products are delivered, they are frequently provided without proper fitting, user training, or follow-up support—undermining their effectiveness and long-term impact.

"They gave me the device, but no one showed me how to use it. It stayed in the box."

– Assistive technology user, Jordan (stakeholder consultation, 2025)

Community networks often fill the gaps but are rarely trained or under-resourced. Repair systems are absent in most localities, and many users lack information about their rights or the confidence to advocate for services. When follow-up is not provided, gender-specific risks are heightened, such as unsafe device use or social isolation. Infrastructure – including roads, shelters, and water, sanitation and hygiene (WASH) facilities – remains largely inaccessible, making many devices unusable.

5. Inaccessible infrastructure and lack of climate-resilient design

The effectiveness of assistive products depends not only on the device itself but on the environment in which they are used. In most disaster-affected areas, roads, shelters, WASH facilities and transport systems are not accessible, making even the best-designed assistive product unusable during crises.

"It is not the wheelchair that failed. It is the road that swallowed it."

– OPD leader, Vanuatu (stakeholder consultation, 2025)

Climate adaptation efforts – such as elevated housing, floodable streets or solar transport – frequently overlook the needs of assistive technology users, creating new forms of exclusion. Similarly, power cuts during floods or cyclones make battery-dependent assistive technology unusable, cutting off mobility and communication.

A disability inclusive and gender-responsive approach to climate-resilient design is critical. This includes ensuring assistive technology users are meaningfully consulted in infrastructure planning, and that accessibility and safety are embedded into climate action from the outset.

15 Momentum Wheels for Humanity, 'Emergency AT Preparedness', at https://momentum4humanity.org/our-projects/emergency-at-preparedness/, accessed August 2025.

6. Exclusion from early warning and preparedness systems

Multi-hazard early warning systems[16] often lack provisions for assistive technology users. While national systems may issue alerts, messages are frequently inaccessible to persons who are deaf and those using hearing aids, screen readers or communication devices. Technical warnings are not adapted and responsibilities for issuing and adapting alerts are often split between meteorological offices and disaster management agencies, and weak coordination between agencies leads to delays and inaccessible messages for assistive technology users. Women and girls with disabilities, particularly in remote areas, are less likely to receive timely alerts due to social isolation, lack of digital access, or exclusion from community leadership networks.

"Meteorological offices issue alerts in technical language, then expect disaster offices to make them accessible. But there are no tools, guidance or budgets to do that."

– Stakeholder interview, Pacific, 2025

Assistive technology users are rarely included in risk assessments and early action protocols often fail to reflect their needs, particularly those with invisible disabilities. Promising efforts are emerging in the Pacific. However, broader adoption requires coordination and investment at national and regional levels.

16 International Telecommunication Union, 'Multi-Hazard Early Warning Systems', at https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/Multi-hazard-early-warning-systems.aspx, accessed August 2025.

3 Gaps in evidence, data and learning

While evidence on assistive technology in humanitarian response is growing, critical gaps remain in data, monitoring and learning, especially in the context of DRR and climate action. Most available research focuses on mobility aids, with limited documentation of communication, cognitive, sensory and psychological support products in crisis settings. The 2023 UNDRR Global Survey serves as a foundational data source, offering firsthand perspectives that can inform future research and monitoring frameworks.

In the few instances where promising work on assistive technology in DRR and humanitarian action is already underway, it is often not sufficiently documented, limiting opportunities for shared learning, replication and scale-up.

Underrepresented groups and their assistive technology needs are often overlooked. Most examples and investments focus on more commonly represented user groups. There is very little documentation of affordable, low-technology communication aids for persons who are deaf or hard of hearing – such as communication boards – or cognitive support tools that could help people understand and act on disaster preparedness information. The gender gap in AT research is further compounded by the underrepresentation of women and girls with disabilities in participatory studies, community consultations, and leadership roles. Their lived experiences are critical to shaping inclusive technologies and services that respond to specific needs, particularly in crisis contexts where safety, privacy, caregiving roles, and mobility are impacted by structural inequalities. More inclusive research and programme design are needed to reflect the needs of these often-overlooked groups.

There is also little evidence on how assistive technology needs evolve during slow-onset disasters, such as drought, heatwaves or sea level rise. These crises may result in gradual but permanent changes in functioning, especially for older persons or those with chronic health conditions. Yet such trajectories remain poorly understood. Many provided assistive products are not tracked or followed up, and it remains unclear whether users are able to maintain, repair or replace their assistive technology over time. In addition, there is limited understanding of which assistive technology interventions work, for whom and in what contexts. Closing these evidence gaps requires disability inclusive, gender-responsive and locally grounded research, led in partnership with organizations of persons with disabilities (OPDs) and user communities themselves.

Without better data and follow-up systems, assistive technology provision in DRR and climate response will remain fragmented and risk missing real needs. Closing these gaps is essential to ensure that assistive technology systems are not only inclusive in design, but also effective and accountable in practice.

A person in a wheelchair carefully descends a staircase by holding onto the handrail, illustrating the lack of accessible infrastructure.

Photo credit: Nadiia Doloh

4 Good practices and opportunities for enhancing access to assistive technology in disaster and climate action

Policy as a key enabler for equitable access to assistive technology

Access to assistive technology is critical to ensuring the rights, safety and inclusion of assistive technology users. The Convention on the Rights of Persons with Disabilities (CRPD)[17] sets out State obligations to ensure the availability, affordability and accessibility of assistive technology, including in emergencies. Relevant provisions include Articles 4 (general obligations), 9 (accessibility), 11 (situations of risk and humanitarian emergencies), 20 (personal mobility), and 26 (habilitation and rehabilitation). The upcoming development of a human rights treaty on older persons presents an opportunity to recognize access to assistive technology as a right for this segment of the population as well.[18]

17 United Nations, Department of Economic and Social Affairs, 'Convention On The Rights Of Persons With Disabilities (CRPD)', at https://social.desa.un.org/issues/disability/crpd/convention-on-the-rights-of-persons-with-disabilities-crpd, accessed August 2025.

18 UN: Treaty on Older People's Rights Moves Ahead | Human Rights Watch.

International frameworks offer practical guidance. The Inter-Agency Standing Committee guidelines on inclusion of persons with disabilities in humanitarian action[19] outline inclusive planning steps such as mapping assistive technology user needs, engaging OPDs and integrating assistive technology across sectors. WHO provides technical tools – including the Emergency Medical Teams standards,[20] the Assistive Technology Assessment toolkit[21] and the Priority Assistive Products List[22] – to support national prioritization and system strengthening.

Global initiatives such as the Global Cooperation on Assistive Technology[23] and ATscale[24] promote policy development and market shaping, particularly in low- and middle-income countries. WHO's Training in Assistive Products (TAP)[25] further supports essential health and protection personnel capable of assessing and addressing assistive technology needs across functional domains.

The Human Rights Council has advanced efforts to promote access to assistive technology as part of care and support systems,[26] dedicating specific reports to the rights of persons with disabilities in relation to digital technologies and devices, including assistive technologies.[27]

At the regional level, the Pacific offers an important example of how high-level policy commitments can prioritize assistive technology. The Secretariat of the Pacific Regional Environment Programme (SPREP)[28] supports the 2050 Strategy for the Blue

19 Inter-Agency Standing Committee, 'IASC Guidelines, Inclusion of Persons with Disabilities in Humanitarian Action, 2019', at https://interagencystandingcommittee.org/iasc-guidelines-on-inclusion-of-persons-with-disabilities-in-humanitarian-action-2019, accessed August 2025.

20 WHO (2021) Classification and Minimum Standards for Emergency Medical Teams, at https://iris.who.int/bitstream/handle/10665/341857/9789240029330-eng.pdf.

21 WHO, 'Advancing data collection on Assistive Technology', at https://www.who.int/tools/ata-toolkit, accessed August 2025.

22 WHO, 'Global Cooperation on Assistive Technology (GATE)', at https://www.who.int/initiatives/global-cooperation-on-assistive-technology-(gate), accessed August 2025.

23 WHO, 'Global Cooperation on Assistive Technology (GATE)', at https://www.who.int/initiatives/global-cooperation-on-assistive-technology-(gate), accessed August 2025.

24 ATscale, 'Homepage', at https://atscalepartnership.org/, accessed August 2025.

25 WHO, 'Training in Assistive Products (TAP)', at https://www.who.int/teams/health-product-policy-and-standards/assistive-and-medical-technology/assistive-technology/training-in-products, accessed August 2025.

26 OHCHR, Human Rights Topics: Care and support, at https://www.ohchr.org/en/topic/care-and-support, accessed August 2025

27 A/HRC/58/33: Rights of persons with disabilities and digital technologies and devices, including assistive technologies | OHCHR.

Pacific Continent,[29] which identifies inclusion and equity as cross-cutting priorities. Its 2023-2030 Implementation Plan[30] explicitly references the six preconditions for disability inclusion: accessibility; assistive devices; support services; social protection; community-based inclusive development; and non-discrimination. A dedicated regional funding mechanism has been proposed to accelerate action on these preconditions. This approach not only embeds assistive technology in climate and disaster frameworks, but links it directly to broader inclusion and resilience goals, offering a model of how regional coordination can drive systemic change.

At the national level, countries such as Fiji, Namibia, Nepal and Thailand have introduced disability-specific cash benefits, while Indonesia and Zambia have implemented inclusive top-ups within social protection systems. When tied to health or livelihood services, these measures can expand assistive technology access. Still, most countries have not yet integrated assistive technology into preparedness systems and humanitarian financing rarely covers the full scope of inclusive provision, highlighting a need for stronger alignment between policy intent and implementation.

29 Pacific Islands Forum, '2050 Strategy for the Blue Pacific Continent', at https://forumsec.org/2050, accessed August 2025.

30 SPREP (2023) 2050 Strategy Implementation Plan 2023-2030 (Phase I - 2050 Strategy for the Blue Pacific Continent): Setting the Foundations Towards Transformational Change, at https://www.sprep.org/sites/default/files/documents/circulars/Cir23-92_2050-Strategy-Implementation-Plan.pdf.

Making inclusion real: Assistive technology in disaster and climate action

Assistive technology is increasingly recognized as a cross-cutting enabler of inclusive DRR and climate action. Moving from recognition to impact requires systems, partnerships and financing that translate policy into practice.

Emerging efforts in Australia, Fiji and Kenya demonstrate how assistive technology is being integrated into disaster laws, preparedness systems and supply chains. OPDs are playing a critical role and sustained public and donor investment remains essential. This section presents how preparedness systems, inclusive financing and locally led innovations are translating commitments into action for assistive technology users in disaster and climate contexts.

1. Strengthening preparedness systems for assistive technology inclusion

A key enabler of inclusive disaster and climate action is the shift from reactive provision to anticipatory and inclusive preparedness. While prepositioning assistive products remains essential, preparedness must extend beyond physical stockpiles. It requires planning systems, coordination mechanisms and direct engagement with assistive technology users and OPDs.

Effective preparedness measures include mapping assistive technology users and their requirements, ensuring early warning systems are accessible – including through assistive technology –, training focal points and establishing inclusive feedback systems. Investment in context-appropriate product design – rugged, climate-resilient and adaptable – is particularly critical in flood-prone or remote settings.

Australia provides a strong example of system-level preparedness. Under its International Disability Equity and Rights Strategy,[31]

31 Australia, Department of Foreign Affairs and Trade, 'Australia's International Disability Equity and Rights Strategy: Advancing equity to transform lives', at https://www.dfat.gov.au/publications/publications/australias-international-disability-equity-and-rights-strategy-advancing-equity-transform-lives, accessed August 2025.

initiatives support school-based screening, assistive technology provision and improved access across humanitarian supply chains. A flagship component, the Humanitarian Logistics Capability (HLC) programme,[32] led by Palladium[33], Christian Blind Mission (CBM) Australia[34] and the Nossal Institute,[35] developed priority assistive technology kits through consultation with OPDs and service providers. Kits include wheelchairs, earplugs and communication boards, and are backed by accessible instructions, standard operating procedures (SOPs) and training materials. These were deployed in the Vanuatu (2024) and Myanmar (2025) earthquakes with support from governments, the International Committee of the Red Cross and United Nations organizations.

CBM Australia also worked with the Pacific Disability Forum[36] to integrate assistive technology into the Pacific Humanitarian Warehousing Program,[37] which now includes inclusion indicators and prepositioned stock in regional warehouses. As part of HLC Phase 2, SOPs were piloted across three Pacific countries, helping define delivery roles in smaller-scale emergencies where coordination is often ad hoc. This experience illustrates how long-term investment, inclusive planning and OPD engagement can help embed assistive technology in preparedness systems – as a right, not an afterthought – and strengthen community resilience.

Myanmar offers a complementary example of integrated and multisectoral preparedness. Following a major earthquake, prepositioned mobility products from ATscale and Momentum Wheels for Humanity's Consolidating Logistics for Assistive Technology Supply & Provision[38] were deployed within days. Coordinated by UNICEF, WHO, ICRC and Humanity & Inclusion, this early access helped prevent secondary injuries and enabled prompt referrals to rehabilitation and health services.

32 Australia, Department of Foreign Affairs and Trade, 'Australia's Humanitarian Logistics Capability and relief supplies', at https://www.dfat.gov.au/development/topics/development-issues/building-resilience/humanitarian-preparedness-and-response/humanitarian-emergency-relief-supplies, accessed August 2025.

33 Palladium, 'Homepage', at https://thepalladiumgroup.com/, accessed August 2025.

34 CBM Australia, 'Homepage' at https://www.cbm.org.au/, accessed August 2025.

35 University of Melbourne, Melbourne School of Population and Global Health, 'Nossal Institute for Global Health', at https://mspgh.unimelb.edu.au/centres-institutes/nossal-institute-for-global-health, accessed August 2025.

36 Pacific Disability Forum, 'Homepage', at https://pacificdisability.org/, accessed August 2025.

37 Australia, Department of Foreign Affairs and Trade, 'Pacific Humanitarian Warehousing Program', at https://www.dfat.gov.au/development/topics/development-issues/building-resilience/australias-humanitarian-assistance/pacific-humanitarian-warehousing-program, accessed August 2025.

UNICEF's disability management information system, linked to a national cash assistance programme, drew on a registry of 50,000 households with persons with disabilities. Assistive technology was delivered alongside fitting, training and follow-up support, in coordination with OPDs and service partners.[39] Crucially, the response embedded assistive technology within a broader 'cash-plus' model, pairing cash transfers with access to case management, psychosocial support and protection services. This model shows how advance planning and inclusive coordination can strengthen resilience and ensure continuity of care.

Together, these examples demonstrate that preparedness for assistive technology must go beyond storage. Institutional frameworks, inclusive design, community engagement and integrated delivery systems are critical to ensuring timely and equitable access during disasters.

2. Inclusive financing systems: Linking assistive technology to social protection and anticipatory action

The impact of assistive technologies goes beyond individual empowerment, they contribute to broader social and economic resilience. By enabling people to participate in education, employment, and community life, AT helps reducing long-term healthcare and welfare costs, supports inclusive labour markets, and strengthens the effectiveness of social protection systems in preventing isolation and exclusion.[40] A key opportunity emerging from the evidence is the integration of assistive technology into shock-responsive social protection and anticipatory financing. These approaches move beyond treating assistive technology as a postcrisis need, instead enabling users to secure, maintain or replace essential assistive products before a disaster occurs. Anticipatory financing mechanisms must be designed to prevent loss of functionality and independence among assistive technology users, enabling timely access to resources before disaster strikes.

39 https://www.globaldisabilitysummit.org/wp-content/uploads/2025/03/GIP03351-UNICEF-GDIR-Summary-v5-WEB-Accessible.pdf

40 OHCHR A/HRC/58/33: Rights of persons with disabilities and digital technologies and devices, including assistive technologies | OHCHR

In Fiji, the government – supported by the World Food Programme– developed an Anticipatory Action Framework that channels pre-disaster cash through the national social protection system. Triggered by cyclone forecasts, this mechanism enables early payments to at-risk households, including those receiving the Disability Allowance Scheme. Funds are intended to support evacuation, repair or replacement of assistive products. The approach leverages existing registries and embeds disability inclusion from the outset, while promoting government ownership.

In Bangladesh, CBM and partners activated a crisis modifier during the 2022 Gaibandha floods[41] under an inclusive DRR programme. Forecasts triggered unconditional cash transfers for 204 households and disability-related top-ups for 27 households to help cover costs such as transport, medication or assistive product needs. Though small in scale, the model illustrates how initiatives led by nongovernmental organizations (NGO) can flexibly adapt existing programming to reach assistive technology users in times of crisis.

These examples demonstrate how anticipatory cash transfers can reduce risk, preserve independence and strengthen preparedness for assistive technology users. While both models show promise, they did not systematically track the use of funds for needs related to assistive technology, pointing to an area for further learning. Future initiatives should monitor whether and how needs related to assistive technology are met, and explore refinements in targeting, top-up design and service linkages to improve continuity and functionality during emergencies.

When early action is inclusive – linking social protection, disability registries and flexible cash assistance – anticipatory financing can help safeguard lives and functional independence before disaster strikes. Countries such as Kenya, India and Ghana are now exploring how disability allowances, insurance schemes and national budgets can be adapted to support assistive technology users in emergencies, marking a broader shift towards equity and inclusive disaster response.

41 Saha GB, Nasim R and Neuschaefer O (2022) Lessons Learned: The CBM Crisis Modifier Activation in Bangladesh Floods, 2022, at https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.cbm.org%2Fdam%2Fjcr%3Af706ee49-9dab-4d2c-a149-d1eacf20153a%2FCBM%2520Crisis%2520Modifier%2520Bangladesh%2520Floods%25202022pdf&psig=AOvVaw0eh0YSqVwayXDPLUgslPHV&ust=1754055516259000&source=images&cd=vfe&opi=89978449&ved=0CAQQn5wMahcKEwjIwpeRnOeOAxUAAAAAHQAAAAQBA.

3. Locally driven solutions: User-centred design and community-led delivery

Locally led approaches – designed with and for assistive technology users – are proving to be powerful enablers of resilience and last-mile access. OPDs, social enterprises and community-based groups are advancing solutions that are culturally appropriate, adaptable and rooted in local systems. These efforts strengthen ownership, fill service delivery gaps and build community-level capacity to respond to crises.

In South Africa, Shonaquip Social Enterprise (SSE)[42] developed a community-based model that improves mobility, safety and inclusion in rural and disaster-affected areas. Its Off-road Transporter[43]– a hybrid stretcher and wheelbarrow – was designed for informal and hard-to-reach environments. Operated by trained porters, the Transporter played a vital role during the 2021 KwaZulu-Natal floods, when traditional transport was cut off. SSE-trained teams helped people cross damaged routes and reach essential services.

In Khayelitsha, SSE expanded this model by training parents of children with disabilities to manage local transporter teams. These microenterprises both support family income and improve community access. The initiative also builds inclusive DRR capacity by training caregivers and community members in emergency response protocols. Originally developed for rural South Africa, this model demonstrates how user-centred design and income-generating service models can expand mobility and resilience in both stable and crisis contexts.

Similar approaches are emerging in the Pacific. In Fiji, Field Ready[44] partnered with local maker spaces to rapidly design and produce assistive products using 3D printing and locally sourced materials. After Cyclone Winston, they developed the Accessibility Retrofitting Kit[45] – a low-cost bundle of portable ramps, signage

42 SSE, 'Homepage', at https://shonaquipse.org.za/, accessed August 2025.

43 SSE, 'Off-road Transporter', at https://shonaquipse.org.za/product/rural-transporter/, accessed August 2025.

44 Field Ready, 'Homepage', at https://www.fieldready.org/, accessed August 2025.

45 Field Ready, 'ARK: Accessibility Retrofitting Kit', at https://www.fieldready.org/projects, accessed August 2025.

and handwashing stations – to improve shelter accessibility in flood-prone areas. To sustain impact, Field Ready trained local engineers and interns, creating a Suva-based maker space that now serves as a hub for rapid prototyping, training and emergency deployment. This model highlights the potential of local production and cocreated design to address supply chain barriers and deliver timely and context-appropriate assistive technology solutions in emergencies.

Together, these examples show that locally driven innovation can strengthen self-reliance, bridge last-mile access and embed inclusion into disaster preparedness and response.

4. Inclusive risk communication: Ensuring assistive technology users are reached from early warning to recovery

Early warning systems are among the most effective tools for saving lives and reducing harm during disasters. But when alerts are inaccessible, fragmented or disconnected from the needs of assistive technology users, these systems can reinforce risk instead of reducing it. Risk communication is not only about issuing early warnings, but it must also support risk knowledge, preparedness and recovery. Therefore, inclusive risk communication must be sustained before, during and after an emergency. Achieving this requires more than diverse communication formats. It demands policy mandates, institutional coordination and co-designed tools that ensure all users receive information in time and in a way, they can act on.

Governments and humanitarian actors are beginning to close these gaps through practical and scalable solutions. Inclusive early warning systems are being developed that align forecasting, message adaptation and local dissemination, increasingly shaped through partnerships with OPDs. During key informant discussion one such good practice was highlighted in the Pacific Islands, the Pacific Disability Forum is working with national disaster agencies and regional meteorological bodies to make early warnings accessible at the point of generation by training staff, reviewing emergency plans and advising on inclusive alerts to ensure assistive technology users receive timely and actionable

information. In the Bahamas, mobile technology such as the AccessAbility app[46] provides real-time alerts, GPS-enabled emergency help and accessible evacuation routes. Local governments – such as in Bristol[47], United Kingdom – are co-designing emergency plans with OPDs to reflect mobility, sensory and cognitive needs. Furthermore, global platforms such as Infinite Access[48] are pioneering personalized and accessible communication tools to improve inclusion across essential services. Together, these approaches demonstrate how inclusive early warning can be achieved through user-centred planning, accessible tools and clear coordination roles.

In the aftermath of a winter storm, a Red Cross volunteer communicates using sign language with a woman in a wheelchair inside an emergency shelter set up in a gymnasium due to a power outage.

Photo credit: Scott Dalton/ American Red Cross

46 Google Play, 'AccessAbility Bahamas' at https://play.google.com/store/apps/details?id=org.accessability.app&hl=en&pli=1, accessed August 2025.

47 https://services.bristol.gov.uk/council/policies-plans-and-strategies/equality-diversity-and-cohesion-policies/bristol-commissions/bristol-disability-equality-commission

48 Infinite Access, 'Homepage', at https://www.infiniteaccess.io/, accessed August 2025.

5 Recommendations

Systemic barriers to accessing assistive technology in DRR and climate action demand coordinated and multistakeholder action. The following recommendations respond to key challenges identified through desk analysis, global survey and consultations with nearly 300 stakeholders from 90 countries. They are aligned with States Parties' obligations under the CRPD, the Sendai Framework and relevant climate policy frameworks.

1. National governments

Governments are encouraged to mandate the inclusion of assistive technology in DRR, climate adaptation and emergency frameworks, embedding a rights-based and gender-responsive approach to ensure equitable access for women, girls, older persons, and gender-diverse groups with disabilities. Assistive technology should be embedded across national systems – health and social protection – not treated as a stand-alone or optional service. This requires sustained public investment, integration of assistive technology into relevant strategies and service delivery, and coordination across relevant ministries, including health, social welfare/protection, finance, disaster management and environment/climate authorities. The governments should integrate assistive technology into National Adaptation Plans and climate finance mechanisms, recognizing assistive technology as a key enabler of resilience for persons with disabilities and other assistive technology users. This includes adopting climate-resilient assistive technology design standards and promoting green procurement practices that ensure products are durable, sustainable and appropriate for disaster-prone environments.

Governments are also encouraged to adopt a prevention-first approach by integrating assistive technology into early warning systems, anticipatory action frameworks, and disaster preparedness plans. This includes mapping needs in advance and ensuring continuity of access during disruptions.

A designated lead ministry, such as health or social welfare, should be assigned to coordinate assistive technology planning, budgeting and implementation across sectors. Governments are recommended to strengthen national data systems to capture disability, gender- and age-disaggregated assistive technology needs, using tools such as the Model Disability Survey[49] developed by WHO and the World Bank, or WHO's rATA[50], and link data to risk assessments and contingency plans. Early warning and risk communication systems must be inclusive and co-designed with OPDs and assistive technology users to ensure meaningful reach. Investment in local supply chains, simplified procurement to ensure products reach the most marginalized, while training for local responders is essential to ensure effective assistive technology delivery.

These actions affirm that access to assistive technology is recognized as a human right under international law, including the CRPD and a core enabler of inclusive disaster and climate action when accompanied by accessible environments, inclusive services, rehabilitation and support systems and social protection. They must also align with the CRPD[51] and global commitments such as the '15 for 15' target from the Amman-Berlin Declaration on Global Disability Inclusion, positioning assistive technology within broader systems of equitable risk governance and preparedness. Governments should also ensure that assistive technology is integrated into national reporting mechanisms for the Sustainable Development Goals and the Sendai Framework. This includes tracking assistive technology access, inclusion measures and outcomes for persons with disabilities across relevant indicators, such as those related to health, resilience, education and equality.

49 WHO, 'Disability: Model disability survey', at https://www.who.int/news-room/questions-and-answers/item/model-disability-survey, accessed August 2025.

50 WHO, 'Rapid assistive technology assessment', at https://at2030.org/rapid-assistive-technology-assessment, accessed August 2025.

51 United Nations, Department of Economic and Social Affairs, 'Convention On The Rights Of Persons With Disabilities (CRPD)'.

52 Global Disability Summit 2025 (2025) Amman-Berlin Declaration on Global Disability Inclusion, at https://www.globaldisabilitysummit.org/wp-content/uploads/2025/03/GDS-Amman-Berlin-Declaration_final-draft.pdf.

2. Local governments and municipal authorities

Local governments play a critical role in inclusive disaster and climate action. As first responders and community planners, they must ensure that assistive technology is integrated into local preparedness, infrastructure and response systems, in line with national commitments.

Assistive technology should be reflected in local disaster and contingency plans, including risk assessments, early warning, stockpiling and delivery systems. Inclusive referral and response mechanisms must be built into health, rehabilitation and protection services, ensuring people newly in need of assistive technology are supported during emergencies.

Emergency cash assistance should include disability-related costs, including those related to assistive technology where relevant, and evacuation protocols should ensure safe handling and continuity of assistive technology. Shelters must be made accessible and equipped for assistive technology users.

Governments are responsible to invest in accessible infrastructure using universal design principles, along with inclusive communication systems that reach all users during emergencies. Partnerships with OPDs, schools and community actors are essential to strengthen simulation drills, awareness and training, building trust and capacity for inclusive local response. Governments are also encouraged to mainstream the use of national sign languages as well as augmentative and alternative communication tools in emergency protocols, early warning systems and public service announcements. These formats must be co-designed with OPDs and communication assistive technology users to ensure accessibility across diverse functional needs. By prioritizing preventive infrastructure upgrades and inclusive simulation drills, local authorities can ensure assistive technology users are not left behind during emergencies.

3. International humanitarian, disaster risk reduction and climate actors

Humanitarian, DRR and climate actors – including United Nations organizations and international NGOs – play a critical role in ensuring that assistive technology is embedded across coordination, preparedness and response systems. Assistive technology must be treated as a core component of inclusive disaster and climate action, not a stand-alone issue.

Assistive technology should be integrated into humanitarian needs overviews, response plans, and national DRR and climate strategies, with clear roles, targets and coordination across sectors. Procurement and service delivery must include assessment tools specific to assistive technology, adaptable product stockpiles, referral pathways, and supply systems for repairs and spare parts recognizing specific needs of women, girls and other marginalized AT users.

Preparedness must include rosters of trained rehabilitation professionals, inclusive training for responders and users, and multilingual guidance materials. WHO's TAP[53] can support basic service delivery at the primary level but should complement – not replace – investment in formal rehabilitation systems.

Coordination of assistive technology in emergency preparedness and response should be clearly positioned within humanitarian cluster systems. While assistive technology is often linked to health, effective inclusion requires strong coordination with protection and shelter and non-food items, particularly where OPDs and disability focal points are already engaged.

Positioning assistive technology under health must not lead to siloed responses. Inter-cluster coordination should explicitly link assistive technology with health and protection to ensure inclusive service delivery, accessibility and safeguarding.

49 WHO, 'Learning on TAP', at https://www.who.int/teams/health-product-policy-and-standards/assistive-and-medical-technology/assistive-technology/training-in-products, accessed August 2025

4. Assistive technology users, organizations of persons with disabilities and community-based organizations

Assistive technology users, OPDs and community-based organizations (CBOs) must be central partners in disaster planning, preparedness and response. Their lived experience and local knowledge should inform emergency protocols, community drills and preparedness standards, helping avoid charity-based approaches and unsupported assumptions.

While not all OPDs represent assistive technology users, their leadership, accountability and advocacy strengthen inclusive planning and monitoring. CBOs often play a vital role in mobilizing communities and facilitating access to information and services. Assistive technology users bring critical insight into barriers, solutions, functionality and service quality, and should be engaged directly in preparedness efforts.

Together, these actors should lead community mapping, raise awareness and co-design training for users, families and responders using accessible formats. At the policy level, they should advocate for the integration of assistive technology into DRR and climate strategies and for preparedness to be embedded in frameworks related to assistive technology. Assistive technology users and OPDs should lead post-disaster monitoring and feedback processes to assess the effectiveness, safety and usability of assistive products and services. These mechanisms should be community-based, accessible and designed to inform future preparedness and procurement strategies.

Their input ensures that access to assistive technology services and products are safe, usable and culturally relevant. Through joint action, they help position assistive technology as both a right and a key enabler of inclusion, safety and resilience.

5. Health, including rehabilitation service providers

Health and rehabilitation services are the primary entry points for assistive technology and must be equipped to assess, deliver, maintain and support assistive technology use, especially in crisis-affected settings where continuity of care is often disrupted. Rehabilitation professionals, primary health workers and community-based providers play a critical role in prescribing appropriate products, ensuring safe use and supporting long-term functionality.

Assistive technology should be embedded in inclusive health systems, with investments in infrastructure, repair services and workforce development. WHO's TAP can support basic service delivery at the primary care level but must complement – not replace – system-wide strengthening.

Multidisciplinary frontline teams must be trained in inclusive triage, prescription, repair and user support, using participatory and context-adapted approaches.

Preparedness efforts should also support resilience-building through cross-sector referral and coordination systems that ensure continuity of care across health and social services. Facilities must be accessible and follow universal design principles.

Digital tools and telehealth can help bridge service gaps, enabling remote assessment, clinical triage, user guidance and feedback. Integrating these tools into preparedness and response frameworks is key to delivering flexible, person-centred and resilient assistive technology services that function across DRR, response and recovery.

6. Private sector

Private sector actors – including assistive technology manufacturers, technology providers and logistics companies – have a critical role in making assistive technology more accessible, affordable and resilient in disaster and climate contexts. Their innovation can drive modular, low-cost and durable assistive technology solutions adapted to harsh environments. Products should be co-designed with assistive technology users and OPDs to ensure functionality and safety during emergencies.

Under the Guiding Principles on Business and Human Rights, assistive technology companies have a responsibility to respect human rights by actively identifying, addressing, and mitigating risks. This includes implementing human rights due diligence, ensuring transparent and ethical data practices, and designing products that are accessible and non-discriminatory. These measures help ensure that technological innovations uphold privacy, equality, and dignity, and are effectively integrated into inclusive social protection systems.[54]

Companies should support last-mile delivery and prepositioning strategies that prioritize durable and adaptable products as well as include clear and accessible user guidance. This must complement – not replace – investment in national systems and local supply chains. Digital tools for emergency communication, diagnostics and user tracking can also enhance preparedness and response.

Transparent pricing, quality assurance and inclusive design standards are essential, especially for publicly procured or donated assistive technology. Businesses should also invest in inclusive employment, training and hiring persons with disabilities, including assistive technology users, across the supply chain. These efforts will help ensure assistive technology is not only available during crises but embedded in anticipatory action and long-term resilience strategies.

54 A/HRC/58/33: Rights of persons with disabilities and digital technologies and devices, including assistive technologies | OHCHR

7. Researchers, academics and policy analysts

Evidence-based action is essential to improve how assistive technology is planned, delivered and monitored in disaster and climate contexts. Researchers and academic institutions – particularly those working on humanitarian action, DRR, climate action and disability inclusion – play a vital role in closing knowledge gaps, generating practical tools and supporting innovation. Without disaggregated data and context-specific evidence, governments and humanitarian actors cannot plan effectively or meet the diverse needs of assistive technology users in crisis settings. Research institutions can also drive user-led innovation and inform long-term strategies for inclusive preparedness.

They should develop assessment tools specific to assistive technology and rapid methods that go beyond general disability data. Applied research is needed on delivery models, repair systems, referral pathways and inclusive communication practices. Collaboration with OPDs and technical agencies is key to co-creating training, curricula and locally adapted assistive technology solutions. Assistive technology must be reflected in DRR and climate research agendas, and tracked through robust monitoring, evaluation, accountability and learning systems. Finally, donors, governments and academic institutions should invest in OPD leadership and research capacity to support inclusive and user-driven risk governance.

8. Donors and development cooperation actors

Donors play a critical role in ensuring that assistive technology is systematically included in disaster and climate financing. Funding strategies should require targets, indicators and dedicated budget lines related to assistive technology, with disaggregated data to monitor access and impact.

Support should focus on locally appropriate and safe assistive technology provision, especially in underserved and climate-vulnerable contexts. This includes strengthening supply chains, public–private collaboration and quality assurance, while promoting inclusive models such as the AT2030 Programme: Restoring Dignity.[55]

To ensure sustainability, donors are encouraged to fund rehabilitation services, repair networks and long-term user support, not just product distribution. Finally, shock-responsive social protection schemes must explicitly cover costs related to assistive technology, including repair, replacement and urgent needs during crises.

A man with a prosthetic leg walks along a rural path carrying firewood on his shoulder, smiling. A damaged building and green crops are visible in the background.

Photo credit: China Disabled Persons' Federation (CDPF)

55 Patel D, Yeamkhong N and Middlekoop R, 'Restoring Dignity: Crafting Inclusive Humanitarian Support in the Asia-Pacific', at https://at2030.org/restoring-dignity, accessed August 2025.

6 Conclusion and Key Priorities

Realizing inclusive DRR and climate action requires more than policy alignment. It demands deliberate disability inclusive and gender-responsive investment, coordinated action and the leadership of persons with disabilities and other assistive technology users at every level.

Access to assistive technology is recognized as a human right under international law, including the CRPD: essential for dignity, health and participation in crisis settings. Yet, in disaster- and climate-related contexts, environmental degradation and social disruption intensify the barriers assistive technology users already face. These conditions can severely limit access to services, mobility, communication and participation, posing risks that, for some, may be life-threatening. Assistive technology and its support systems – maintenance, user training and service provision – must be recognized as core enablers of resilience.

However, access to assistive technology cannot function in isolation. Its impact depends on accessible environments, rehabilitation, inclusive support systems, social protection and non-discrimination. This integration must be sustained across all phases of preparedness, response and recovery, replacing outdated notions of a linear disaster cycle with comprehensive inclusive, resilience-building frameworks.

This policy brief outlines clear and actionable steps for governments, humanitarian and development actors, donors, civil society and the private sector. The evidence is clear: inclusive systems are possible, effective and urgently needed. The leadership of assistive technology users and their representative organizations, grounded in lived experience, must guide this shift. But leadership must be matched by political will, sustained financing and systems capable of delivering at scale. These recommendations offer a road map to act – not after the next crisis, but now. Every delay compounds risk. Every step forward builds a more inclusive, just and resilient future.

Key Priorities

1. **Access to assistive technology is a recognized right, not an optional add-on.**
2. **Inclusive prevention is not a luxury—it is a necessity. Inclusive DRR and climate action must begin with proactive measures that protect assistive technology users from foreseeable risks and disruptions.**
3. **Assistive technology saves lives in emergencies, but only when delivered with other essential inclusion measures. Together, they must be recognized as key enablers of inclusive DRR and climate action.**
4. **Assistive technology is a humanitarian and development priority. It helps build resilience, inclusion and independence in everyday life, not just during disasters.**
5. **Governments are responsible to ensure assistive technology is available, accessible and affordable for all who need it.**
6. **Assistive technology users must lead, supported by political will, sustained financing and meaningful systems change.**
7. **Governments and key sectors—including DRR, climate, health, and social protection—must co-design with OPDs and users, especially women and girls with disabilities, solutions should be embedded across preparedness, early warning, and risk communication systems.**
8. **Disasters don't discriminate—but exclusion does. Failing to include assistive technology users puts lives at risk. Immediate action is not optional.**

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