WFP
World Food Programme

SAVING LIVES
CHANGING LIVES

Disability-Inclusive Early Warning Messages in Lao PDR Workshop

Summary Report

3-4 July 2025

supported by:

Ministry for Foreign Affairs of Finland

Acknowledgement

This report captures the insights, lessons learned, key actions, and collaborative efforts of the "Disability-Inclusive Early Warning Messages in Lao PDR Workshop," held on 3 and 4 July 2025, in Vientiane, Lao PDR. We extend our deepest gratitude to the Department of Meteorology and Hydrology (DMH) under the Ministry of Agriculture and Environment (MAE), and the Department of Social Welfare (DSW) under the Ministry of Labour and Social Welfare (MOLSW), for their leadership in organizing this event.

Our sincere appreciation is extended to all participants, particularly Persons with Disabilities (PWD), representatives from Organizations of Persons with Disabilities (OPDs) and Civil Society Organizations (CSOs), including Lao Disabled People's Association (LDPA), Women With Disability Association (WWDA), and Disability Mainstreaming Advisory Services (DMAS), as well as delegates from Cambodia, notably from the Ministry of Water Resources and Meteorology of Cambodia (MoWRAM), and all development partners. Their invaluable perspectives, shared experiences, and active engagement were instrumental to the workshop's success and enriched the content of this report. The insights gathered from their contributions form a foundational basis for the recommendations presented herein. We also acknowledge the contributions of all technical presenters and facilitators who shared their expertise and guided the discussions.

This collective endeavor aims to translate knowledge into tangible actions, fostering a more inclusive and resilient Lao PDR where early warnings truly serve all.

Contents

Acknowledgement 3

Executive Summary 6

Introduction 7

1. Disability-Inclusivity (DI): The Human Imperative 8

1.1. The Reality of Disability in Lao PDR 9

1.2. Specific Challenges Faced by Persons with Disabilities During Disasters 10

1.3. The Power of Inclusive Approaches 12

2. Early Warning Messages (EWM): The Foundation 13

2.1. The EWS Landscape in Lao PDR 14

2.2. Current Capabilities and Gaps in Warning Systems 15

2.3. Understanding Community Perception and Response 16

3. Disability-Inclusive Early Warning Messages (DIEWM): A Unified Vision 17

3.1. Integrating EWS and Disability-Inclusivity: Towards "Early Warnings for All" 18

3.2. Beyond Awareness: Shifting Mindsets and Empowering Action 20

3.3. Strategic Recommendations for an Inclusive EWS 21

3.4. Tangible Next Steps: a Roadmap for DIEWM 23

4. Annexes 24

4.1. The Workshop in a Nutshell 25

4.2. Personas: Understanding Diverse Needs in DIEWM 26

4.3. DIEWM Prototypes 27

4.4 Action Planning for DIEWM: Bridging Policy, Capacity & Resources 28

5. References 29

Executive Summary

The "Disability-Inclusive Early Warning Messages in Lao PDR Workshop," held on 3 and 4 July 2025, convened a diverse group of stakeholders to address the critical need for integrating disability inclusion into Early Warning Systems (EWS) across Lao PDR. Recognizing Lao PDR's high vulnerability to hydro-meteorological hazards, the workshop aimed to foster a more resilient nation by ensuring that early warnings reach and are understood by all, particularly Persons with Disabilities.

Key insights from the workshop highlighted the strong commitment of the Government of Lao PDR to a people-centered, end-to-end, multi-hazard early warning systems through the Early Warnings for All (EW4All) roadmap. However, there remain some challenges in inclusive last-mile early warning, particularly regarding the fragmented nature of existing EWS, significant communication barriers, and the lack of awareness and accessibility for Persons with Disabilities. Crucially, the discussions emphasized that Persons with Disabilities often face compounded risks during disasters due to limited access to information, inaccessible evacuation routes, and inadequate relief assistance.

The workshop served as a vital platform to synthesize current EWS practices with disability-inclusive principles, moving towards a unified vision of Disability-Inclusive Early Warning Messages (DIEWM).

This report advocates for a paradigm shift, challenging the status quo where Persons with Disabilities are often perceived as passive recipients of aid, rather than empowered actors with vital roles in shaping their own safety and resilience. Instead, it champions an approach that empowers them through active participation in EWS design and dissemination, multi-format communication, and universally accessible infrastructure. The recommendations outlined provide both strategic direction and practical steps for fostering a truly "Early Warnings for All" environment in Lao PDR, underscoring the urgency of collaborative action, continuous improvement, and sustained investment in inclusive disaster risk reduction.

Persons with Disabilities often face compounded risks during disasters due to limited access to information, inaccessible evacuation routes, and inadequate relief assistance.

Introduction

Lao People's Democratic Republic (Lao PDR), as the sole Landlocked Developing Country in Southeast Asia, stands at a critical juncture, facing escalating hydro-meteorological hazards intensified by climate change. The devastating impacts of floods, droughts, and storms underscore the urgent need for robust disaster risk reduction (DRR) strategies [1]. At the heart of these strategies lies the effectiveness of Early Warning Systems (EWS), which are paramount in safeguarding lives, livelihoods, and community resilience.

However, the efficacy of any EWS is fundamentally tested by its reach and comprehensibility across all segments of the population. This workshop specifically honed in on a critical, yet often overlooked, dimension: the inclusion of Persons with Disabilities. As mandated by Article 11 of the UN Convention on the Rights of Persons with Disabilities (UNCRPD), there is a compelling obligation to ensure the safety and protection of Persons with Disabilities in all situations of risk, including natural disasters [2].

This two-day national workshop, a collaborative initiative by the Government of Lao PDR, the World Food Programme (WFP), the Department of Meteorology and Hydrology (DMH), and the Department of Social Welfare (DSW), was designed not only for consultation but as a catalyst for concrete action. Through a rich mix of expert panels, technical presentations, and hands-on participatory design exercises, it aimed to dissect the challenges, foster deep understanding, and collaboratively chart a course towards truly Disability-Inclusive Early Warning Messages (DIEWM).

This report synthesizes the key lessons learned, insights and narratives from the workshop, offering a critical look at the current state, and proposing actionable recommendations. It champions a people-centered approach, ensuring that the voices and needs of Persons with Disabilities are not just heard, but are foundational to the future of early warning in Lao PDR.

1

Disability-Inclusivity (DI): The Human Imperative

1.1. The Reality of Disability in Lao PDR

Understanding disability in Lao PDR is crucial for effective disaster risk reduction. The 2015 Census reported 2% of the population with disabilities; however, other estimates, such as those from the World Health Organization (WHO), suggest the actual prevalence could be significantly higher, with figures reaching up to 23% of adults, indicating a potential underestimation of disability in official statistics [7]. This discrepancy highlights the prevalence of "invisible" disabilities—those not immediately apparent—and the higher incidence in rural areas where access to services is limited. Contributing factors range from unexploded ordnance (UXO) and road accidents to birth conditions, infectious diseases, non-communicable diseases, and malnutrition [7].

The diversity of disability is vast and multifaceted. Persons with disabilities include 'individuals with long-term physical, mental, intellectual, or sensory impairments. These impairments, when interacting with various societal and environmental barriers, can hinder full and effective participation in society on an equal basis with others'. These impairments, when interacting with various societal and environmental barriers, can hinder full and effective participation in society on an equal basis with others'. Recognizing this diversity is the first step towards designing truly inclusive systems. The lives and experiences of Persons with Disabilities must be centered in our understanding of vulnerability, shifting from a deficit-based view to one that recognizes their inherent rights and capacities.

1.2. Specific Challenges Faced by Persons with Disabilities During Disasters

When disasters strike, Persons with Disabilities often face compounded vulnerabilities that amplify their risk. Technical presentations from Handicap International, and the WWDA's Attapeu case study where severe flooding ocurred in Sanamxay district due to the collapse of the Xe Pian Xe Namnoy hydropower dam, underscored these specific challenges [3, 7, 8]:

Unclear Early Warning Messages & Inadequate Evacuation Support
Warnings often lack accessible formats such as sign language interpretation, Braille, large print, pictorial warnings, or loudspeakers, rendering them unintelligible for many. Impassable infrastructure creates significant barriers to safe evacuation.

"Some of us cannot understand the warnings at all, while others might receive the messages but then worry about protecting our assets and belongings. For those with physical disabilities, the challenge of moving to safety is particularly difficult."
Ms. Chanpheng, WWDA

Community Support Gaps
The absence of comprehensive data on the whereabouts of Persons with Disabilities is a major issue. This lack of information is compounded by inadequate local coordination mechanisms, hindering effective support and targeted interventions during emergencies.

"We often don't know where Persons with Disabilities are located, and there's a lack of clear coordination at the community level for their support."
Mr. Vinthong, DMAS

Mental Health Impacts
Disasters can severely impact the mental health and increase anxiety among Persons with Disabilities, who may fear non-inclusive shelters and experience distress over their ability to protect or be present for their families.

"We are deeply concerned by disasters; our daily lives are profoundly affected. This is especially true for those of us in rural and impoverished families, where physical vulnerabilities can prevent us from helping our families with farming, which in turn severely affects our mental health."
Mr. Samnieng, LDPA

Inadequate Shelters & Treatment Centers
A lack of accessible design in shelters or treatment centers during any disaster significantly compromises the safety, dignity, and independence of all Persons with Disabilities. Without inclusive design, these crucial safe havens become barriers.

"During the COVID-19 pandemic, at treatment centers, blind individuals faced significant challenges navigating unfamiliar environments, such as locating bedrooms and toilets, due to a lack of visual cues."
Mr. Samnieng, LDPA

These challenges paint a stark picture: for Persons with Disabilities, a disaster is not just an event, but a profound amplification of existing societal barriers. This raises a critical question:

Why are Persons with Disabilities disproportionately affected by disasters?

1.3. The Power of Inclusive Approaches

Addressing the multifaceted challenges faced by Persons with Disabilities requires a proactive and holistic commitment to inclusive disaster risk reduction (DRR). The workshop emphasized that inclusion is not merely an add-on but a fundamental pillar for effective DRR. Key inclusive approaches highlighted included:

Participation of Persons with Disabilities
Active involvement of Persons with Disabilities and their representative organizations in all stages of disaster planning, response, and recovery is paramount. Their lived experiences provide invaluable insights that cannot be obtained otherwise.

Accessible Communication
Implementing multi-format communication strategies - including sign language, pictograms, easy-to-read texts, Braille, and audio messages - guarantees understanding, enhancing the agency of Persons with Disabilities by strengthening their informed decision-making, representation, ownership.

Disability-Inclusive Training
Equipping emergency responders with the knowledge and skills to assist, and peer support and the involvement of close acquaintances are vital, offering crucial assistance and a sense of belonging that empowers Persons with Disabilities during disaster events.

Accessible Infrastructure
Ensuring that evacuation routes, shelters, and essential services are physically accessible to all is non-negotiable. This means considering mobility aids, clear pathways, and inclusive design comprehensively.

These approaches collectively form the structure of a truly people-centered Early Warning System. They underscore the principle that resilience is built from the ground up, by actively involving those most at risk in designing the solutions that serve them best.

2

Early Warning Messages (EWM): The Foundation

2.1. The EWS Landscape in Lao PDR

Early Warning Systems are the first line of defense against escalating climate and hydro-meteorological hazards. In Lao PDR, the Department of Meteorology and Hydrology (DMH) plays a central role, tasked with establishing and expanding meteorological and hydrological networks, collecting crucial data, and issuing forecasts and warnings [4].

This foundational work provides the scientific basis for understanding and predicting hazards. The Government of Lao PDR has demonstrated strong commitment to disaster risk reduction, embedding it within national development strategies. This commitment is further solidified by its alignment with global initiatives, notably the "Early Warnings for All" (EW4ALL) roadmap, which aims to protect every person on Earth by multi-hazard EWS by 2027. Efforts are underway to develop comprehensive national frameworks for multi-hazard early warning systems, reflecting a proactive approach to climate resilience.

The relevant national bodies utilize various tools and technologies, including satellite data, radar, and international numerical weather prediction models, to generate forecasts at different lead times—from daily to seasonal predictions [4, 5]. The integration of these advanced systems reflects a commitment to enhancing technical capabilities for disaster preparedness for the entire population. However, the question remains:

Are these technical advancements translating into truly effective warnings that reach everyone?

"Communities are the first responders. It is important to invest in state-of-the-art solutions for top-down interventions, and equally important to support from the ground up at the community level using low-tech solutions."

Mr Hemang Karelia
World Bank

The effectiveness of EWS isn't just about accurate prediction; it's profoundly about accessible dissemination and actionable understanding.

2.2. Current Capabilities and Gaps in Warning Systems

Fragmented Systems Limited integration across different hazards and agencies can lead to inconsistencies and inefficiencies in warning dissemination.	*"Currently, our database system is not yet established. Furthermore, the distribution process remains decentralized and uncoordinated".* ***Mr. Thanongdeth, ADPC*** 
Limited Coverage in Remote Areas Despite efforts, remote, minority, and border communities often experience limited access to communication infrastructure, including internet and smartphones, creating critical information gaps.	*"If a disaster truly occurs, especially at night, there may be no one available to disseminate the information to the local communities effectively."* ***Ms. Khaemeuy, DMH*** 
Technological Constraints The absence of reliable power and internet connectivity in some areas remains a significant hurdle for leveraging digital warning systems.	*"During disasters, power outages are common. We must adapt and determine how to use loudspeakers in a way that is appropriate and effective for each community. "* ***Mr. Phouymany, PIN*** 
Insufficient Public Awareness Communities often lack adequate training on how to interpret and respond to warnings effectively. This extends beyond simple receipt of a message; it pertains to understanding its implications and knowing what actions to take.	*"The committee was neither trained nor put into practice. It's similar to having a fire extinguisher at home that hasn't been used for five years and when an incident happens, no one knows how to use it."* ***Mr. Samnieng, LDPA*** 

2.3. Understanding Community Perception and Response

A critical component of effective Early Warning Systems is understanding how communities perceive and react to warning messages. The 2025 National Weather Forecast & Early Warning System Perception Survey in Lao PDR shed light on this crucial aspect, revealing important insights into user perceptions regarding message receipt, utilization, and response [3].

The survey highlighted that while some communities have access to warnings, a significant portion still lacks comprehensive understanding or trust in the information provided. For instance, a considerable percentage of respondents were unaware of the formal sources of Early Warning Messages, often attributing warnings to local leaders rather than official meteorological departments. This indicates a potential disconnect between official dissemination efforts and community-level information absorption. Furthermore, while many acknowledge the importance of Early Warning Messages, actual proactive response varies, with a portion of the population reporting "no action" taken even after receiving warnings. This raises the following questions:

Why do some individuals or communities, despite receiving warnings, not take action?

Is it a matter of clarity, trust, or perceived relevance? Does a history of false alarms or ineffective warnings erode confidence over time, leading to a normalization of disaster impacts?

These questions compel us to look beyond merely broadcasting messages and to delve deeper into the socio-cultural context that shapes community response.

Effective EWS must not only deliver information but also build trust and foster an environment where warnings are actionable and lead to life-saving behaviors.

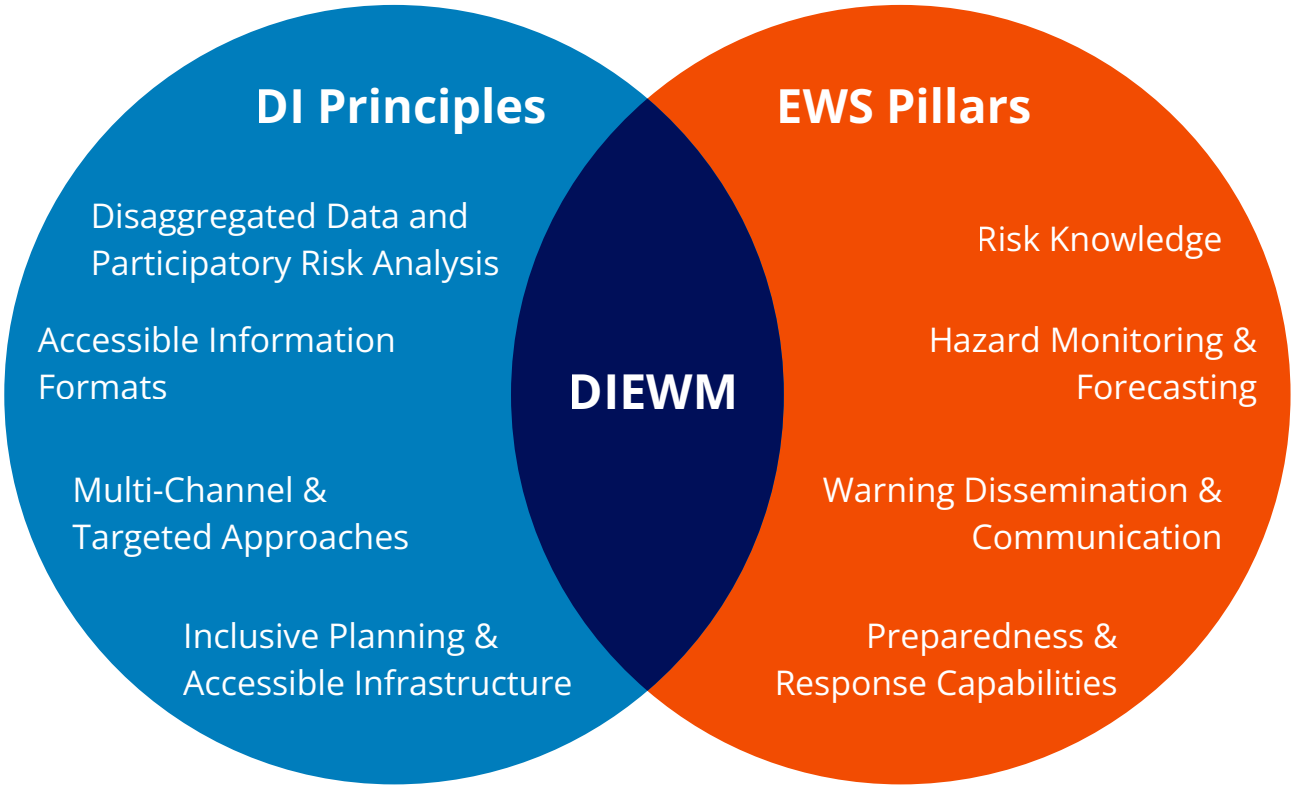
3

Disability-Inclusivity Early Warning Messages (DIEWM): A Unified Vision

3.1. Integrating DI and EWM: Towards "Early Warnings for All"

The workshop's core objective was to bridge the domains of Early Warning Systems (EWS) and Disability-Inclusivity (DI), forging a unified vision for Disability-Inclusive Early Warning Messages (DIEWM). This integration is not merely about adding a disability component to an existing EWS; it is about fundamentally rethinking how warnings are generated, disseminated, and acted upon to ensure no one is left behind [6].

It represents a shift from a fragmented approach to a holistic, human-centered system where the unique needs and capacities of all individuals, especially Persons with Disabilities, are considered from the outset. This ensures that EWS are not just technically sound but also socially just and universally effective. The synergy between effective EWS and robust DI principles can be conceptualized as follows:



Risk Knowledge (EWS Pillar 1) must incorporate Disaggregated Data & Participatory Risk Analysis (DI Principle)

Understanding who is at risk, including the specific vulnerabilities of diverse Persons with Disabilities, informs accurate risk assessments and mapping.

Warning Dissemination & Communication (EWS Pillar 3) must adopt Multi-Channel & Targeted Approaches (DI Principle)

Reaching everyone at risk requires diverse communication channels (e.g., SMS, radio, social media, loudspeakers, sign language, Braille) and tailored messaging for specific disability needs and literacy levels.

Hazard Monitoring & Forecasting (EWS Pillar 2) must be coupled with Accessible Information Formats (DI Principle)

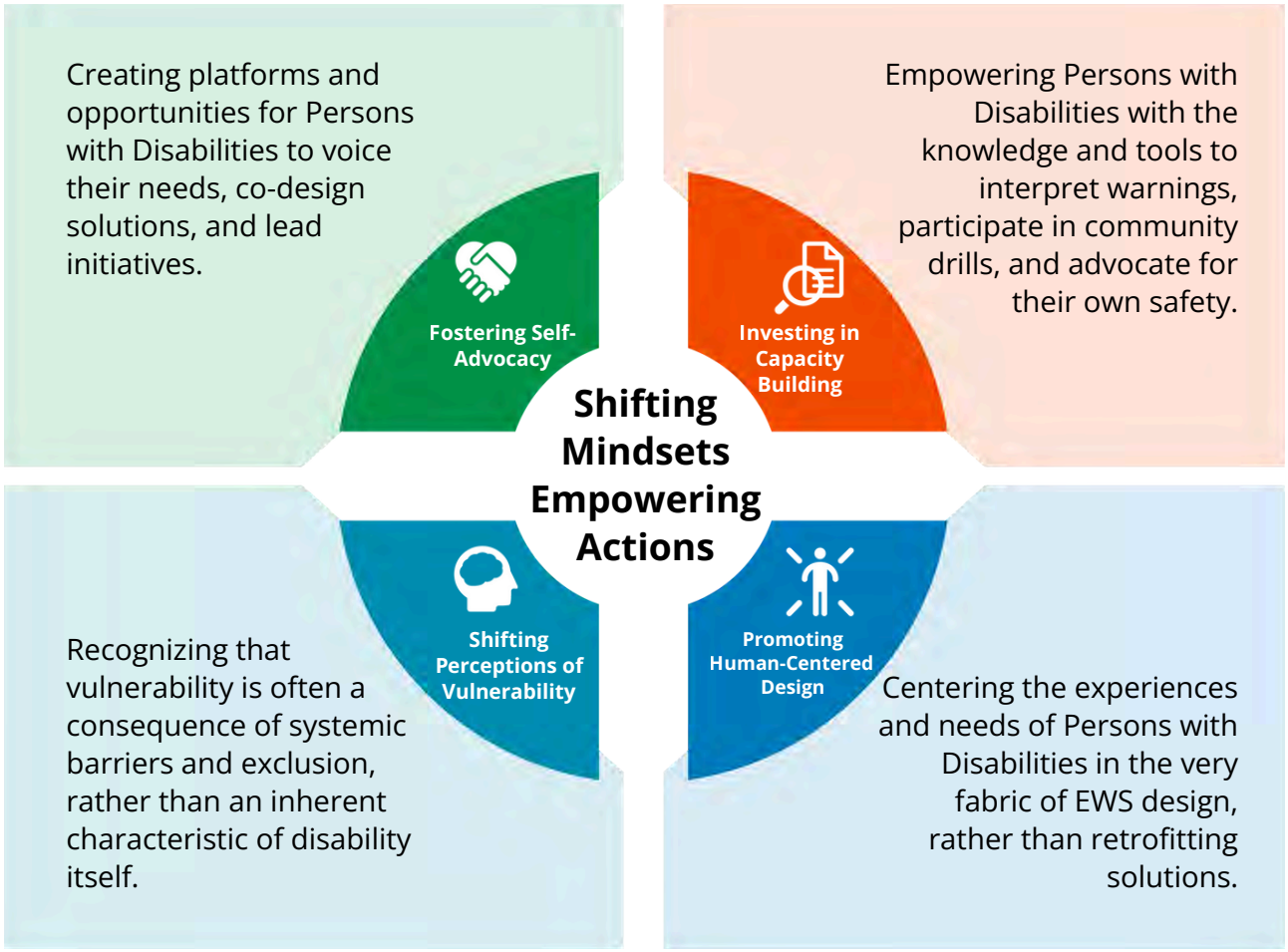
Accurate forecasts need to be translated into understandable and accessible formats to be truly effective for all.

Preparedness & Response Capabilities (EWS Pillar 4) must embrace Inclusive Planning & Accessible Infrastructure (DI Principle)

Response plans, evacuation routes, and shelters must be designed with universal accessibility in mind, ensuring Persons with Disabilities can safely and independently take action.

3.2. Beyond Awareness: Shifting Mindsets and Empowering Action

The workshop conversations often moved beyond technical solutions to confront deeper systemic issues. A critical insight that emerged was the need to challenge prevailing mindsets and societal expectations. The narrative of this report, and indeed the future of DIEWM in Lao PDR, must actively work to dismantle the notion that Persons with Disabilities are merely passive recipients of aid or perpetual victims. Instead, it must champion their agency, their rights, and their inherent capacity for resilience. This means shifting mindsets and taking actions as follows:



This shift is fundamental. It transforms the focus from merely "helping" Persons with Disabilities to enabling their full and equal participation in disaster preparedness and response. It's about empowering action, not just reacting to impact.

3.3. Strategic Recommendations for an Inclusive EWS

Building on the comprehensive discussions and insights from the workshop, a set of overarching recommendations emerged to guide the development of Disability-Inclusive Early Warning Messages in Lao PDR:

I. Foundational Policy & Data: Setting the Strategic Stage

1. Prioritize Disaggregated Data Collection

2. Integrate DIEWM into National Planning & Mandate Resource

II. Framework Development & Strategic Partnerships: Building the Collaborative Structure

3. Strengthen Multi-Stakeholder Collaboration

4. Develop National Guidelines for Inclusive EWS

III. Implementation Approaches & Continuous Improvement: Making it Happen on the Ground

5. Balance Top-Down & Bottom-Up Approaches

6. Foster a Culture of Continuous Learning & Adaptation

These strategic recommendations lay the groundwork for a systemic transformation, ensuring that inclusion is not an afterthought but a foundational principle for disaster preparedness in Lao PDR.

1 Prioritize Disaggregated Data Collection

Systematically collect and utilize data disaggregated by disability type, age, gender, and ethnicity. This data is essential for understanding specific vulnerabilities, tailoring interventions, and measuring the impact of inclusive EWS initiatives.

2 Integrate DIEWM into National Planning & Mandate Resource

Ensure that disability-inclusive DRR is embedded within broader national development and climate change adaptation plans, and allocate dedicated budgets at both national and local levels.

3 Strengthen Multi-Stakeholder Collaboration

Formalize and reinforce collaboration mechanisms between government agencies with mainly DMH, DSW, and development partners such as PIN, HI, WFP, and crucially, OPDs. This ensures co-creation and co-ownership of inclusive EWS.

4 Develop National Guidelines for Inclusive EWS

Formulate clear, actionable national guidelines for the design, dissemination, and response to Early Warning Messages that are inherently inclusive of all disability types, drawing upon international best practices (e.g., UNCRPD, Sphere standards).

5 Balance Top-Down & Bottom-Up Approaches

Communities are invariably the first to respond to disasters, it is imperative to balance sophisticated top-down warning systems with decentralized, low-technology support at the local level.

6 Foster a Culture of Continuous Learning & Adaptation

Establish feedback mechanisms for communities, especially Persons with Disabilities, to provide input on EWS effectiveness. Conduct regular post-disaster evaluations to learn and continuously improve inclusive practices.

3.4. Tangible Next Steps: a Roadmap for DIEWM

To translate the strategic vision into concrete realities, the workshop's final exercise on participatory group action planning, helped identify several practical and tangible actions that can be implemented in the short to medium and long term. These immediate actions are designed to initiate a tangible shift towards a more inclusive and effective EWS in Lao PDR, laying the foundation for long-term resilience and empowerment.

1 Establish GEDSI Focal Points

Assign dedicated Gender, Equality, Disability, and Social Inclusion (GEDSI) focal points within relevant government departments and at the village level, ensuring their active participation in decision-making related to EWS.

2 Capacity Building and Training for Communities

Conduct targeted community training sessions on interpreting early warning messages, specifically designed for vulnerable populations including Persons with Disabilities, utilizing accessible formats and local languages. This should include drills and simulations that involve Persons with Disabilities.

3 Develop Multi-Format Early Warning Materials

Create and disseminate Early Warning Message materials in multiple accessible formats, including simplified language, pictograms, audio messages, and potentially Braille or large print for visual impairments. Explore the use of sign language interpretation for televised or video-based warnings.

4 Strengthen Last-Mile Communication Infrastructure

Assess and upgrade existing communication infrastructure in remote and rural areas, including ensuring the functionality of loudspeakers and exploring low-tech solutions (e.g., flag systems) alongside mobile-based alerts.

5 Pilot Inclusive Early Warning Messages

Conduct pilot programs to test prototypes of disability-inclusive early warning messages in selected communities, gathering feedback from Persons with Disabilities to refine and improve the messages and dissemination channels.

6 Training of Trainers (ToT) and Peer-to-Peer (P2P) Inclusive EWS

Implement a comprehensive ToT program for key government officials, local authorities, and community leaders on the principles and practicalities of disability-inclusive EWS, enabling them to cascade knowledge effectively. Create a P2P program where each person with disability identifies a peer who can help during a disaster event.

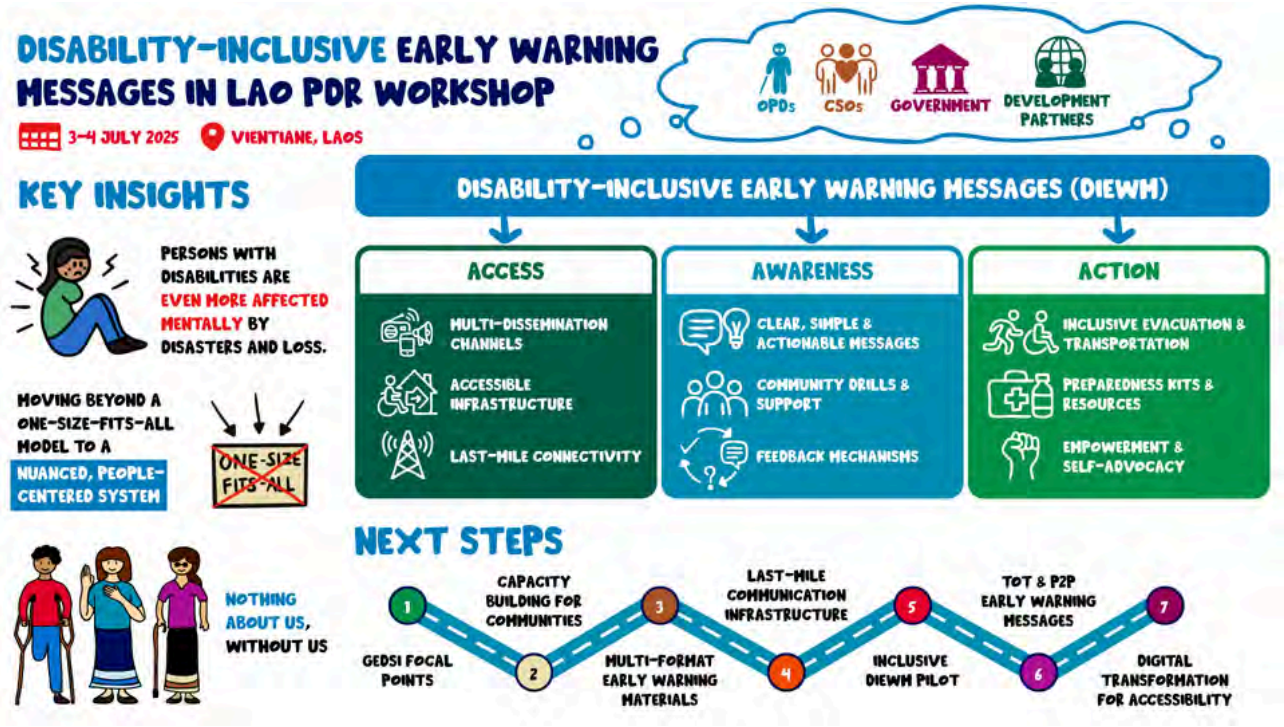
7 Leverage Digital Transformation for Accessibility

While addressing digital divides, continue efforts to expand the use of ICT tools and mobile-based alerts, ensuring that new digital solutions are inherently designed with accessibility features for all disability types, by partnering with development partners (e.g., NGOs, UNs) and digital ecosystem players (e.g. telecom companies).

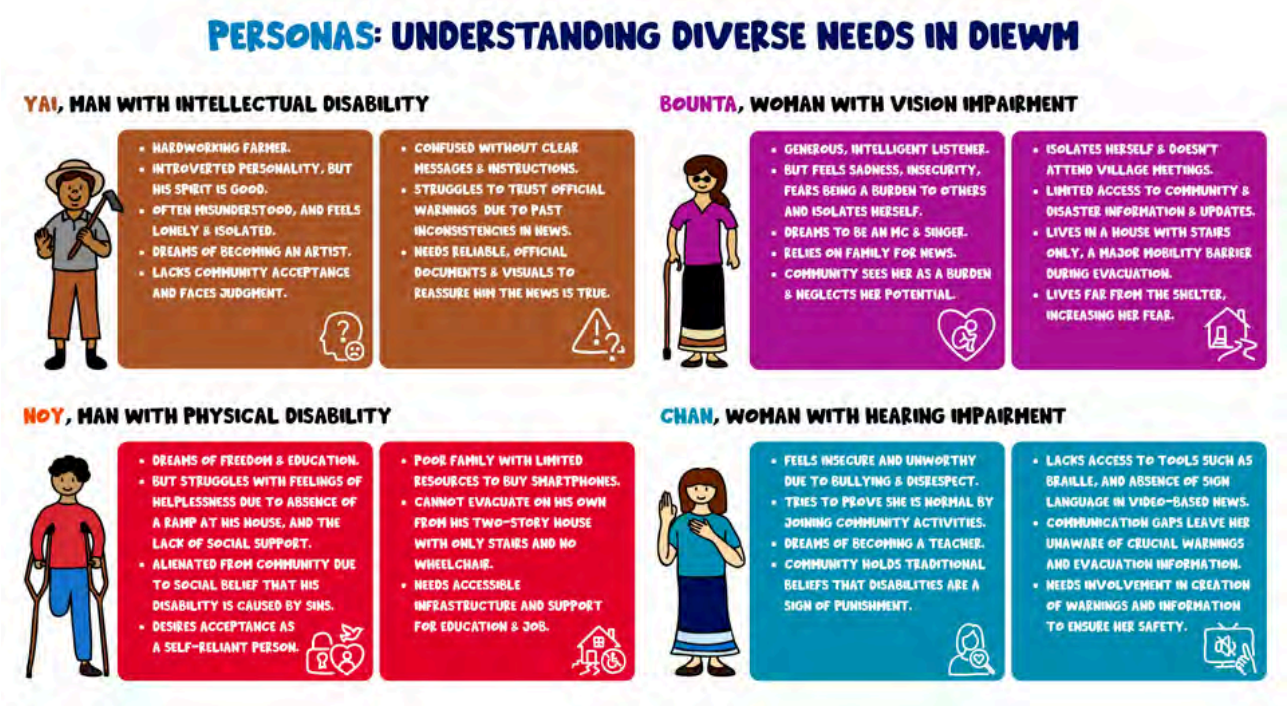
4

Annexes

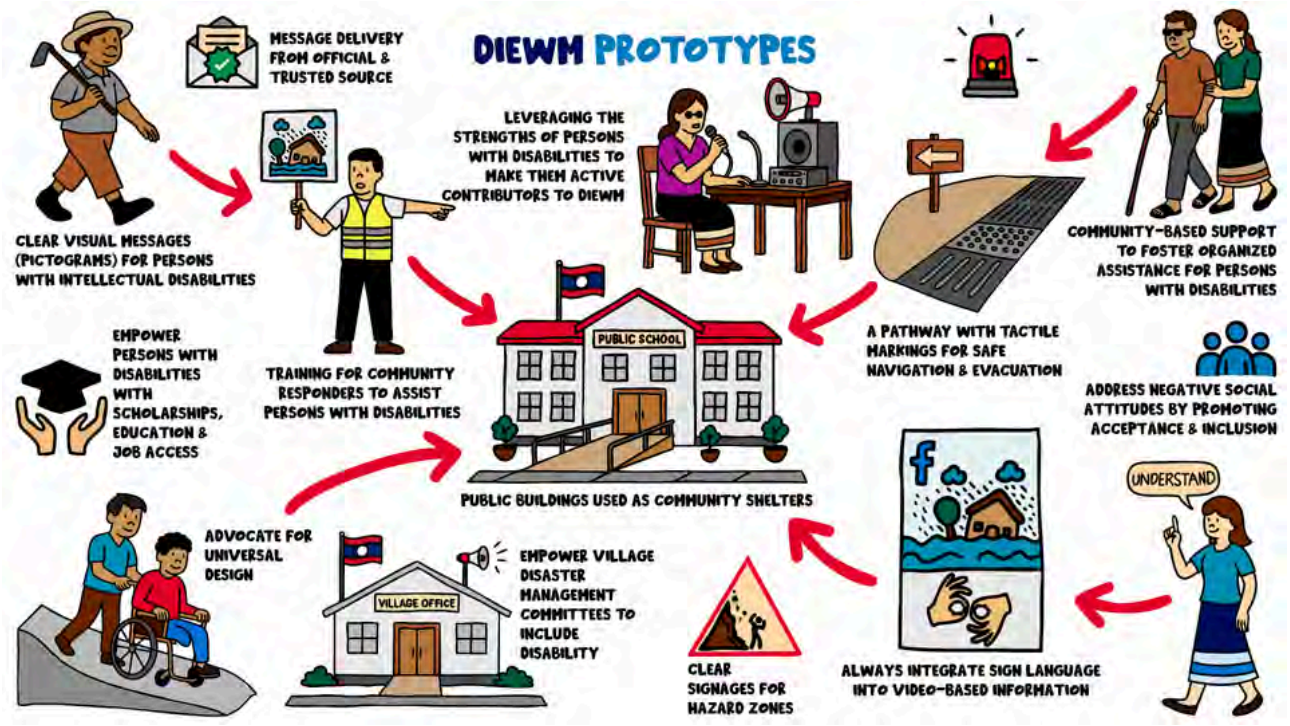
4.1. The Workshop in a Nutshell



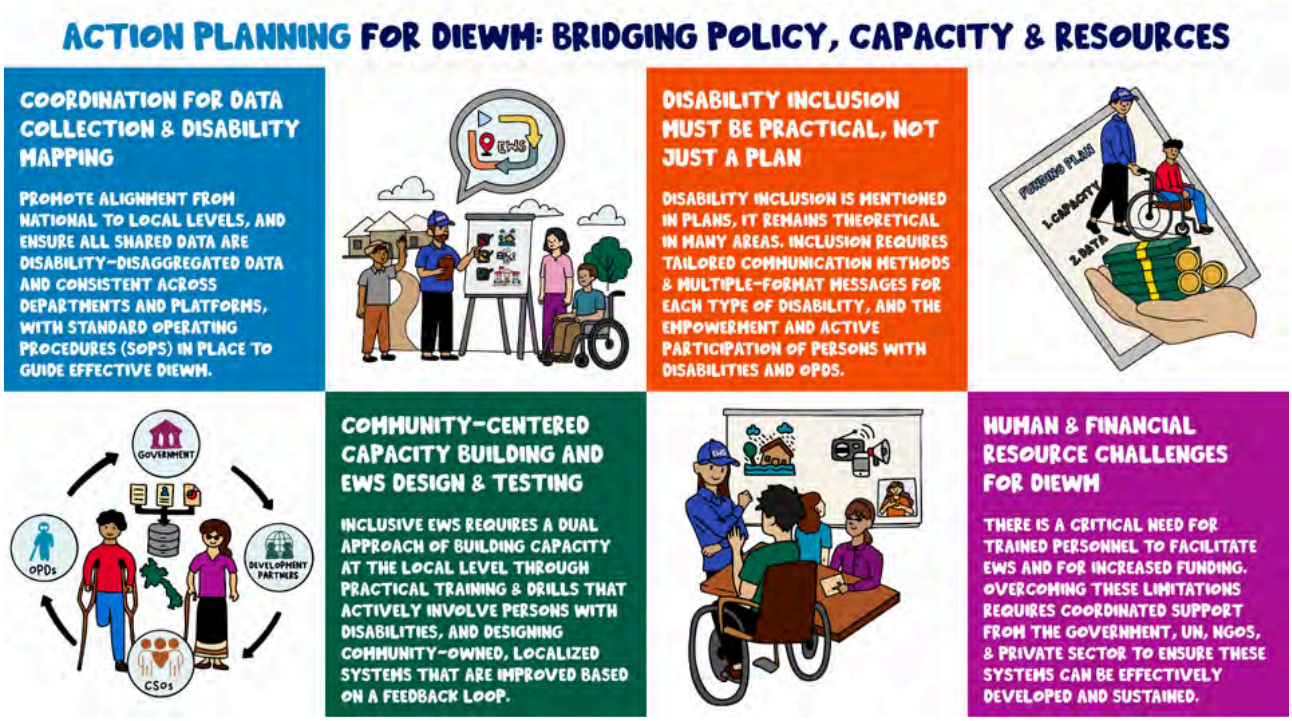
4.2. Personas: Understanding Diverse Needs in DIEWM



4.3. DIEWM Prototypes



4.4. Action Planning for DIEWM: Bridging Policy, Capacity & Resources



5 References

[1] WFP. (2025). Workshop on Disability-Inclusive Hazard Early Warning Messages in Lao PDR - Concept Note.

[2] United Nations. (2006). Convention on the Rights of Persons with Disabilities (UNCRPD), Article 11.

[3] UNDRR. (2025). National Weather Forecast & Early Warning System Perception Survey 2025 Presentation.

[4] DMH. (2025). Weather Forecasting and Early Warning in Lao PDR Presentation.

[5] MoWRAM. (2025). Existing Multi-Hazard Early Warning Systems and Messaging in Cambodia Presentation.

[6] People in Need. (2025). People-Centric MHEWS in Lao PDR and Cambodia Presentation.

[7] Handicap International. (2025). Key Disability Issues and Challenges for Early Warning and Early Action Presentation.

[8] Women With Disability Association (2018). Attapeu Case Study Presentation.

World Food Programme

Don Nokhoum Road, Don Nokhoum Village, Sisattanak District,
Vientiane Capital, Laos

wfp.org/laopdr