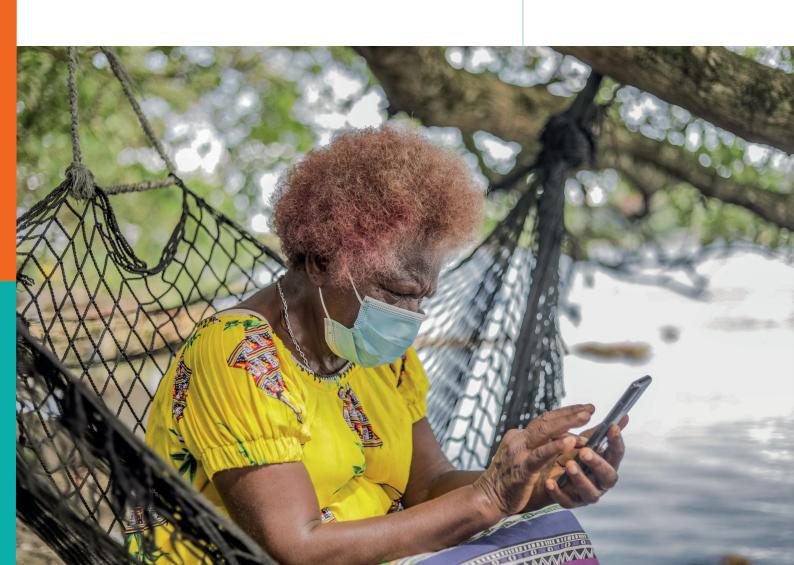






INCLUSIVE AND ACCESSIBLE MULTI-HAZARD EARLY-WARNING SYSTEMS

Learning from women-led early-warning systems in the Pacific



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Cover page: Agnes Titus, Shifting the Power Coalition focal point and Coordinator of Meri Gat Infomasen sends warning messages to women leaders across Bougainville. Credit: Shifting the Power Coalition

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INCLUSIVE AND ACCESSIBLE MULTI-HAZARD EARLY-WARNING SYSTEMS



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ABOUT THIS REPORT

This study was commissioned by the United Nations Office for Disaster Risk Reduction (UNDRR) for the Women's International Network on Disaster Risk Reduction (WIN DRR), in partnership with Shifting the Power Coalition and ActionAid Australia.

The research was conducted remotely and involved a literature review and key informant interviews from representatives of organizations directly involved in the implementation or engagement with women-led MHEWS in Fiji, Papua New Guinea, Tonga and Vanuatu (see Annex 1 for list of key informant interviewees).

Project guidance and review was provided by United Nations Office for Disaster Risk Reduction, Shifting the Power Coalition, and ActionAid Australia.

This report is published by the United Nations Office for Disaster Risk Reduction.









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ACRONYMS

CCA	Climate Change Adaptation	LDCs	Least Developed Countries
CDEMA	Caribbean Disaster Emergency Management Agency	ICCROM	The International Centre for the Study of the Preservation and Restoration of Cultural Property
CEDAW	The Convention on the Elimination of All Forms of Discrimination against Women	MET	Meteorological
COVID-19	Coronavirus Disease	MHEWS	Multi-Hazard Early-warning Systems
CREWS	Climate Risk and Early-warning Systems	NDMO	National Disaster Management Office
DEAT		NGO	Non-Governmental Organization
DFAT	Australian Government Department of Foreign Affairs and Trade	OPD	Organizations of Persons with Disabilities
DM	Disaster Management	PNG	Papua New Guinea
DRR	Disaster Risk Reduction		
DRM	Disaster Risk Management	SDGs	Sustainable Development Goals
EOC	Emergency Operation Centre	SIDS	Small Island Developing States
		StPC	Shifting the Power Coalition
EW	Early-warning	TC	Tropical Cyclone
FDPF	Fiji Disabled People's Federation	UNDRR	United Nations Office for Disaster
FDRP	Framework for Resilient	ONDIN	Risk Reduction
	Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk	WHO	World Health Organization
	Management	WITTT	Women I Tok Tok Tugeta
KII	Key Informant Interview	www	Women's Weather Watch

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EXECUTIVE SUMMARY

The Sendai Framework for Disaster Risk Reduction 2015-2030 recognizes the importance of multi-hazard early-warning systems (MHEWS) in supporting disaster risk reduction efforts. In particular, it includes commitments to investing in and strengthening people-centred MHEWS, disaster risk communication mechanisms and hazard-monitoring telecommunications systems – emphasising a participatory and gender-inclusive approach. Specifically, Target G of the Sendai Framework aims to "substantially increase the availability of and access to multi-hazard early-warning systems and disaster risk information and assessments to the people by 2030".

In the context of the midterm review of the Sendai Framework, this report aims to support governments and other local and international partners across the Asia-Pacific region in developing inclusive and accessible MHEWS by drawing on lessons from the success of a number of women-led and disability-inclusive MHEWS established in the Pacific Region, in particular:

- Fiji Women's Weather Watch
- · Vanuatu's Women Wetem Weta
- Papua New Guinea's Meri Got Infomesen
- Fiji Disabled People's Federation Emergency Operations Centre.

Using community networks and a range of different technologies these initiatives have successfully demonstrated how to communicate real-time information to help diverse groups of women and their communities better prepare, and take early action, before disasters strike, which ultimately saves lives and livelihoods.

This study has found that these women-led initiatives provide valuable insights for strengthening people-

centred, inclusive, accessible, effective and sustainable MHEWS. These initiatives also demonstrate the added value of women-led approaches for promoting gender equality and empowering women, including those living with disabilities or who are marginalized and bring about positive transformational change for the benefit of the whole of society.

Based on these experiences, this report identifies a number of recommendations that can be adapted by governments for more inclusive and accessible MHEWS, which can be applied in different contexts. While the challenges of developing inclusive and accessible MHEWS are well known and documented, these recommendations highlight the benefits of the unique approach of the Pacific women-led initiatives. As countries work to achieve Target G of the Sendai Framework by 2030, incorporating these recommendations will help to increase the availability of, and access to, multi-hazard early-warning systems and disaster risk information in a way that is inclusive and accessible to all, leaving no one behind.

- 1. Build on existing connections and networks within communities: Listening, learning and engaging with existing networks, particularly women's networks, helps to build strong community connections, and MHEWS can benefit from locally-led information gathering and greater resource efficiency. Ensuring positive, safe and inclusive participation, and engagement that acknowledges and respects women's experiences and reflects the diversity within each community, helps broaden ownership and community buy-in for MHEWS. A key component of this is ensuring universal design through use of effective communication in different languages and improving accessibility.
- 2. Build and unlock community knowledge:
 Improving community awareness, and in particular
 women's understanding of climate change and
 disaster risks, using both traditional and modern

scientific knowledge, helps to inform communitylevel disaster risk management and empower women to participate. Developing advocacy and communication skills to effectively engage with and influence different stakeholders can ensure no one is left behind

- 3. Facilitate community-based data collection and hazard monitoring: Supporting communities through appropriate resourcing and capacity-building to engage in systematic data collection about hazards, socio-economic vulnerabilities and disaster impacts in their local area and strengthen information and data sharing between the community and national level.
- 4. Deliver effective early-warning messages: Ensuring early-warning messages are received and acted upon, by involving communities in the development of messaging and using different communication channels to transmit messages. Establishing a two-way communication feedback mechanism that allows communities to share real-time information helps to support continued improvement.
- 5. Integrate and invest in community- and womenled initiatives as an essential part of the MHEWS ecosystem: Officially recognising, supporting and investing in community- and women-led MHEWS initiatives, and connecting them as part of the broader national and regional MHEWS ecosystem, can help to increase access to information, and strengthening links between women-led MHEWS and scientific entities ensures accurate risk knowledge is communicated widely. This may require adaptations to laws and policies, annual budget allocations and the composition of decision-making bodies to be more inclusive of women, persons with disabilities, and community-led initiatives.

6. Recognize the broader benefits of gender-transformative change: There are widespread positive ripple effects from well-supported community- and women-led MHEWS, including greater gender equality and status of women, and broader community-level engagement and empowerment.

Overall, the successes of these women-led initiatives demonstrate how women's innovation and appropriate and accessible information and communication technology and systems, can be used to support the overall effectiveness, inclusiveness and accessibility of mainstream MHEWS, enabling governments to better meet their international commitments, including Target G of the Sendai Framework

These initiatives also contribute to building diverse women's agency, leadership and empowerment, which in turn brings positive benefits for mitigating the impacts of climate change and disasters across the whole of society.



- 1 The Sendai Framework for Disaster Risk Reduction 2015-2030, Article 33 (b).
- 2 UNDRR (n.d.). Sendai Framework Indicators. Available at https://www.preventionweb.net/sendai-framework/sen

BACKGROUND

What makes an effective early-warning system?

Why women-led MHEWS?

Linkages between accessible and inclusive MHEWS and key international commitments



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BACKGROUND

The Asia Pacific region faces a complex set of disaster risks. Due to the impacts of climate change, the frequency and intensity of natural hazards such as cyclones, floods, droughts, sandstorms and inundation from rising sea-levels, are expected to increase. This is compounded by increasingly fragile natural environments, vulnerable infrastructure and socioeconomic challenges, particularly as a consequence of the COVID-19 pandemic.³

Globally, states have acknowledged these challenges and made commitments to address them through a number of important international resolutions and agreements on disaster risk reduction and climate change including:

- Sendai Framework for Disaster Risk Reduction 2015-2030
- Paris Agreement on Climate Change 2015
- Small Islands Developing States Accelerated Modalities of Action (S.A.M.O.A) Pathway 2014
- 2030 Sustainable Development Agenda
- 2016 Agenda for Humanity of the World Humanitarian Summit
- Framework for Resilient Development in the Pacific:
 An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP)

Many of these instruments recognize the importance of well-functioning early-warning systems for mitigating the impacts of climate change and disasters. Early-warning systems enable communities to better understand the risks and hazards they face and take action to protect themselves in the event of an oncoming disaster, saving lives and livelihoods.

WHAT MAKES AN EFFECTIVE EARLY-WARNING SYSTEM?

Early-warning systems should address the full range of hazards faced by communities. Multi-hazard early-warning systems address several hazards or impacts of similar or different type in contexts where hazardous events may occur alone, simultaneously, in a cascade or cumulatively over time, and taking into account the potential interrelated effects.⁴

They incorporate different types of hazards such as climate-related, volcanic, health, technological, biological or anthropogenic hazards. Designing early-warning systems for the diversity of hazards is resource-efficient, enables better integrated disaster risk reduction (DRR), and is more easily understood by communities.⁵



Alisjahbana, Kaveh and Bonapace. 2019. "The Disaster Riskscape Across Asia-Pacific: Pathways For Resilience, Inclusion And Empowerment". Bangkok, Thailand: ESCAP; and SPC et al., (2016) The Framework for Resilient Development In The Pacific: An Integrated Approach To Address Climate Change And Disaster Risk Management (FRDP). Suva, Fiji: Pacific Community (SPC).

- 4 <u>https://library.wmo.int/doc_num.php?explnum_id=4463</u>
- FRC (2012). Community early warning systems: guiding principles. Geneva: International Federation of Red Cross and Red Crescent Societies.

There are a number of useful guidance documents to further support the development of MHEWS including:

- Multi-hazard Early Warning Systems: A Checklist (International Network for Multi-hazard Early Warning Systems/WMO, 2018)
- Good practices for multi-hazard Early Warning
 Systems (WMO, 2011)
- Model National Multi-Hazard Early Warning
 Systems Policy: Adaptation Guide (CDEMA, 2019)
- World Meteorological Organization (WMO)— Concerted International Efforts for Advancing Multi-hazard Early Warning Systems (Luther and others, 2017)
- CREWS initiative (2015)
- Model National MHEWS Policy: Adaptation Guide (CDEMA, 2020)

To be effective, MHEWS must be appropriate to the needs of ALL members of a community, recognising the importance of <u>leaving no one behind</u>. This requires MHEWS to be:

- inclusive of the needs, perspectives, priorities, and meaningful participation of the many different people in society, which vary according to their age, sex, disability, gender roles, sexual orientation, literacy, language, cultural practices, race, geographic location, socio-economic position, among many others
- accessible to all, ensuring that information can reach everyone who may be impacted, and in a way that can be easily understood by all, regardless of their individual circumstances including disability, literacy, and language
- potential impacts and recommended action that people should take, which enables people to reduce their disaster risk, and potential damages and loss.

This requires that information is easily understood and relates to people's reality, for example instead of telling people what the weather might be, explaining what the weather could do to them.

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There are four elements needed for effective MHEWS⁶



Disaster risk knowledge: baseline understanding of the disaster risk including types of hazards, risk and exposure assessments that include coping and adapting capacities, and needs and priorities.



Hazard detection and monitoring: monitoring of hazards, risks and needs over time including forecasting and warning systems and services.



Warning dissemination and communication: communicate warning information, preparation or response actions through messages understood and actionable by the target audience.



Response capacity: risk reduction activities once hazards and trends have been identified including disaster preparedness measures, response plans, and public education and awareness campaigns.

These symbols will be used throughout the report to indicate the different stages applicable to each set of recommendations.

Well-designed disaster risk reduction and climate change initiatives that provide for the full and effective participation of women can advance substantive gender equality and the empowerment of women, while ensuring that sustainable development, disaster risk reduction and climate change objectives are achieved.

CEDAW Recommendation 37, Article 7, p.3

WHY WOMEN-LED MHEWS?

Women frequently bear the brunt of disasters, not because they are inherently more vulnerable, but due to gender norms, roles and relationships.⁷

For example, in many settings, women are directly responsible for the care of children or older family members and because of this, are less likely to be willing to evacuate alone,8 or delay evacuation due to rescuing family members or valuables.9 For example, in the 2015 earthquake in Nepal, more women and girls died because they were assigned indoor chores¹⁰ and, furthermore, there were fewer men present in the country at the time of the earthquake due to the higher emigration rates of men.¹¹ With higher rates of informal and care work, the capacities for women to sustain themselves financially can also be limited, making it more difficult to recover from sudden economic set-backs. Scenarios such as these often result in women facing increased disaster risk, and ultimately experiencing the worst impacts of disasters. 12

Women can also be placed at greater risk through a lack of timely and relevant information about imminent hazards. In the Pacific region, many women do not have equal access to technology, communication and services, and thus miss out on critical information. This is particularly true for women and other marginalized groups in rural or isolated areas, due to a lack of communications services or social barriers, putting them out of reach of life-saving information. Moreover, the channels through which women and men get information from also differs. A study in Nepal determined that 71% of men received early-warning information through a formal source, such as government or INGOs, whereas 51% of women

received their information through informal social sources, such as word of mouth from community or family members.¹³

This study identified a number of examples of the impact that a lack of inclusive and gender responsive EWS and disaster risk management (DRM) systems can have:

- In Fiji, one interviewee highlighted the absence of, or limited access to, clean water and menstrual sanitary products in emergency evacuation centres across the Pacific.
- Another spoke of interviewing elderly women evacuated after the 2004 floods in the north of **Fiji**, who were too ashamed to tell the men running the relief operations that they were wearing wet undergarments and needed dry
- ActionAid Australia described a scenario where one woman who had a hearing impairment did not hear the evacuation alarm and so her family stayed at home and did not evacuate – increasing their risk and danger.

International Network for Multi-hazard Early Warning Systems (2018). Multi-hazard Early-warning Systems: A Checklist. Switzerland, Geneva: World Meteorological Organization; and Luther, Jochen, and others (2017). World Meteorological Organization (WMO)—Concerted International Efforts for Advancing Multi-hazard Early Warning Systems. Geneva: World Meteorological Organization (WMO).

⁷ CEDAW Recommendation 37, Article 3, 5.

³ IFRC (2012). Community early warning systems: guiding principles. Geneva: International Federation of Red Cross and Red Crescent Societies.

UN Women and UNICEF (2019). Research Paper: Gender and Age Inequality of Disaster Risk. Geneva: UN Women and UNICEF.

¹⁰ Alisjahbana, Armida S., Zahedi, Kaveh and Bonapace, Tiziana (2019). The Disaster Riskscape Across Asia-Pacific: Pathways for Resilience, Inclusion and Empowerment, Bangkok, Thailand: UNESCAP.

¹¹ UN Women and UNICEF (2019). Research Paper: Gender and Age Inequality of Disaster Risk. Geneva: UN Women and UNICEF.

¹² IFRC (2012). Community early warning systems: guiding principles. Geneva: International Federation of Red Cross and Red Crescent Societies.

¹³ Brown et al. (2019). Gender Transformative Early Warning Systems: Experiences from Nepal and Peru. Rugby, UK: Practical Action.

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Women's voices are often absent from key decision-making about disasters, and as a result do not have their needs adequately met. In many Pacific communities, women, in particular older women, women with a disability, and groups experiencing disadvantage or marginalization, are often excluded from decision-making processes, both within their own families, as well as within wider local and national systems and governance. When women in all their diversity are actively engaged in the development and implementation of disaster management laws, policies, and operational plans and procedures, and MHEWS identify and address the diverse needs of different groups, DRR efforts become more inclusive and accessible, and ultimately more successful.

Although not an explicit requirement of many current MHEWS guidelines and standards, the establishment of women-led MHEWS have been shown to make a significant contribution to the effectiveness of national MHEWS, and can play a key role in ensuring such systems are inclusive and accessible to all. Having women design and lead these projects broadens the perspectives and experiences that inform decisions, ensures the right messages reach the right people, and improves accountability to communities. These initiatives can also help to address underlying gender inequalities that make women especially vulnerable to disasters and which may prevent their access and contribution to wider DRR efforts.

The importance of gender-responsive DRR planning and implementation is reinforced by <u>CEDAW General Recommendation 37</u>. It also highlights that specific accessibility needs, such as women with disabilities, are often neglected. When women are engaged at all levels in DRR efforts, the needs and priorities of different groups of women and the wider community are more thoroughly considered and addressed.

LINKAGES BETWEEN ACCESSIBLE AND INCLUSIVE MHEWS AND KEY INTERNATIONAL COMMITMENTS

Many international commitments and frameworks, including the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals, The Convention on the Elimination of Discrimination Against Women (CEDAW) General Recommendation No. 37, The Convention on the Rights of Persons with Disabilities, and The Beijing Platform for Action support the development of accessible and inclusive MHEWS. Ensuring accessibility and inclusiveness also supports fulfilment of various human rights responsibilities with regard to women and people with disabilities.

In the Pacific region, states have also adopted the Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP). This includes a commitment to integrate climate change and disaster risk management and encourages their mainstreaming into development planning, including policy making, planning, financing, programming and implementation, in order to build resilience.

The development of MHEWS is a key priority under the FRDP, with specific commitments to:

- strengthen the capacity of national institutions, such as meteorological, hydrological and seismological services, to develop and provide access to hazard and risk information including MHEWS, and to monitor and provide timely and effective warning services to the public
- strengthen effective MHEWS including for sudden and slow onset hazards and the use of science and technology to inform risk management and hazard or disaster preparedness and policy development
- ensure early-warning language and messages are accessible to managers and decision makers, civil society and communities, ensuring that messaging and the availability of humanitarian services reaches vulnerable groups
- ensure communication infrastructure and two-way communication channels are available to people in exposed areas through channels that are used within the country and communities.

SUPPORTING THE DEVELOPMENT OF ACCESSIBLE AND INCLUSIVE MHEWS

The Sendai Framework for Disaster Risk Reduction 2015-2030 recognizes women's participation as critical to effective design, management and implementation of gender-sensitive DRR plans, policies and programmes, stating capacity-building measures should be put in place to empower women to build their own preparedness capacities.¹⁴

It also includes other relevant provisions including:

- investing in and strengthening people-centred MHEWS, disaster risk communication mechanisms and hazard-monitoring telecommunications systems – emphasising a participatory and genderinclusive approach.¹⁵
- enhancing MHEWS16 and building disaster resilience capacity of Small Island Developing States (SIDS);¹⁷
- enhancing access to, and support of, innovation and technology in long-term multi-hazard research and development in disaster risk management;¹⁸
- promoting efforts in partnership with the scientific community and private sector to establish and share good practices;¹⁹
- strengthening the use of media, social media, big data and mobile-phone networks to support disaster risk communication;²⁰
- supporting the development of local and regional user-friendly systems and services for information exchange on DRR good practices and lessons learned on policies, plans and measures;²¹

 strengthening the media's role in contributing to public awareness, disseminating DRR information and supporting MHEWS.²²

A <u>set of indicators</u> was identified to measure <u>global</u> <u>progress</u> of the Sendai Framework, of which Global target G: Substantially increase the availability of and access to multi-hazard early-warning systems and disaster risk information and assessments to the people by 2030, denotes the following sub-indicators²³ of particular importance:

- **G-1**: Number of countries that have MHEWS
- **G-2**: Number of countries that have multi-hazard monitoring and forecasting systems
- **G-3:** Number of people per 100,000 that are covered by EW information through local governments or through national dissemination mechanisms
- G-4: Percentage of local governments having a plan to act on EW
- G-5: Number of countries that have accessible, understandable, usable and relevant disaster risk information and assessment available to the people at the national and local levels
- G-6: Percentage of population exposed to or at risk from disasters protected through pre-emptive evacuation following EW.

The <u>Sustainable Development Goals (SDGs)</u> includes important provisions for the inclusion and empowerment of women and girls as well as the reduction of risk to disasters:

¹⁴ The Sendai Framework for Disaster Risk Reduction 2015-2030, Article 36, (a)(i).

¹⁵ Ibid, Article 33

¹⁶ The Sendai Framework for Disaster Risk Reduction 2015-2030, Article 14, 18 (g).

¹⁷ Ibid, Article 41.

¹⁸ Ibid, Article 25 (j).

¹⁹ Ibid, Article 25 (d).

²⁰ Ibid, Article 25 (c).

²¹ Ibid, Article 25 (e).

²² Ibid, Article 36, (d).

²³ UNDRR (n.d.). Sendai Framework Indicators. Available at https://www.preventionweb.net/sendai-framework/sendai-framework/sendai-framework-indicators. Accessed on 6 October 2021.

BACKGROUND INCLUSIVE AND ACCESSIBLE MULTI-HAZARD EARLY-WARNING SYSTEMS

Goal 1 on ending poverty includes:

· Target 1.5 "By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters."24

Goal 5 on gender equality and empowerment for all women and girls includes:

- Target 5.1. "End all forms of discrimination against all women and girls everywhere."
- Target 5.5. "Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life"; and
- Target 5.b. "Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women."25

Goal 3 on healthy lives and well-being for all, which includes:

· Target 3.D. "Strengthen the capacity of all countries, in particular developing countries, for early-warning risk reduction and management of national and global health risks."26

Goal 11 on making cities and human settlements inclusive safe, resilient and sustainable, includes:

• Target 11.5. "By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the directeconomic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations."27

Goal 13 on taking urgent action to combat climate change, includes:

- Target 13.3. "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early-warning."
- Target 13.b. "Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities."28

The Convention on the Elimination of Discrimination Against Women (CEDAW) General Recommendation No. 37 on gender-related dimensions of DRR in the context of climate change, highlights that:

- "States parties should ... ensure substantiative equality women and men in all areas of life, as well as the specific guarantees in relation to those rights under the Convention that may be particularly affected by climate change and disasters ..."29
- · "The right of women to participate at all levels of decision-making must be guaranteed in climate change policies and programmes"30
- · States should ensure that all programmes and DRR and climate change activities are gender-responsive and grounded in human-rights-based principles including:
- > Equality and non-discrimination with priority to marginalized groups of women and girls, including women with disabilities and older women;31
- > Participation and empowerment to ensure groups of women have opportunity at all stages and levels of policy development and implementation.³²

· The Convention on the Rights of Persons with Disabilities reinforces States' obligation under international humanitarian law to ensure the safety and protection of people with disabilities in armed conflict, natural disasters and humanitarian emergencies, and ensures their full and effective participation and inclusion in society.33 Article 11 explicitly refers to the need for States to take all necessary measures to ensure the protection and safety of persons with

disabilities in situations of risk, including situations

of humanitarian emergencies and disasters.

- The Committee on the Rights of the Child has also touched upon early-warning systems in its concluding observations, recognizing the need for early action to mitigate the health impacts as well as both the psychological and physical trauma experienced by children during disasters.
- The Beijing Platform for Action includes two important strategic objectives:

Strategic objective J.1. Increase the participation and access of women to expression and decisionmaking in and through the media and new technologies of communication.

It states that Governments should:

- encourage and recognize women's media networks as a means of disseminating information, and support women's groups active in all media work and systems of communications34
- provide the means for creative use of programs in national media for information dissemination on cultural forms, and social and educational issues35
- strengthen women's democratic participation through use of communication systems.³⁶

It states that NGOs and media associations should:

- create networks and develop information programs for NGOs and women's organizations to recognize women's specific needs in the media and facilitate women's increased participation in communication³⁷
- encourage media and education training in appropriate languages, utilizing traditional and indigenous forms to disseminate communication on development and social issues.38

Strategic objective J.2. Promote a balanced and non-stereotyped portrayal of women in the media.

It states media organizations should:

- "develop a gender perspective on all issues of concern to communities, consumers and civil society"39
- "increase women's participation in decisionmaking at all levels of the media".40

It states media organizations, NGOs and the private sector should, in collaboration with national mechanisms:

- promote and disseminate media on women leaders and role models⁴¹
- promote educational campaigns to disseminate information and increase awareness of women's human rights⁴²
- finance and support the development of all means of communication to disseminate information to and about women.43

²⁴ Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313), Target 1.5, p.4.

²⁵ Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313), Target 5.1, 5.5, 5.b, pp. 9-10.

²⁶ Ibid, Target 3.d, p.8.

²⁷ Ibid, Target 11.5, p.15.

²⁸ Ibid, Target 13.3, 13.b, p.18.

²⁹ CEDAW Recommendation 37, Article 10, p.4.

³⁰ Ibid, Article 8, p.4.

³¹ Ibid, Article 26 (a).

³² Ibid, Article 26 (b).

³³ OHCHR (2015). 28/4. The right of persons with disabilities to live independently and be included in the community on an equal basis with others A/HRC/RES/28/4, Article 11; OHCHR (2015). Thematic study on the rights of persons with disabilities under article 11 of the Convention on the Rights of Persons with Disabilities, on situations of risk and humanitarian emergencies, A/HRC/31/30.

³⁴ Beijing Platform for Action, Section J, Article 239 (f).

³⁵ Ibid, Article 239 (g).

³⁶ Ibid, Article 241 (b).

³⁷ Ibid, Article 242 (c).

³⁸ Ibid. Article 242 (d).

³⁹ Ibid, Article 244 (c). 40 Ibid, Article 244 (d).

⁴¹ Ibid, Article 245 (b). 42 Ibid, Article 245 (c).

⁴³ Ibid, Article 245 (d).

LEADING BY EXAMPLE: WOMEN-LED MHEWS IN THE PACIFIC

Case study 1: Women's Weather Watch, Fiji

Case study 2: Women Wetem Weta, Vanuatu

Case study 3: Meri Gat Pawa, Meri Gat Infomesen, Papua New Guinea

Case study 4: Fiji Disabled People's Federation Emergency Operations Centre, Fiji



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LEADING BY EXAMPLE: WOMEN-LED MHEWS IN THE PACIFIC

This section of the report includes case studies of women-led initiatives that have successfully implemented inclusive and accessible MHEWS, including:

- · Fiji Women's Weather Watch
- · Vanuatu's Women Wetem Weta
- · Papua New Guinea's Meri Got Infomesen
- Fiji Disabled People's Federation Emergency Operations Centre.

Through the Shifting the Power Coalition, with the support of ActionAid Australia, these initiatives utilize different approaches to empowering women and marginalized groups across the Pacific region through early-warning information-communication systems. They demonstrate how women's innovation and use of appropriate and accessible information and communication technology and systems support effective early-warning messages in real time and in local languages, contributing not just to building the resilience of their communities, but to supporting women's agency, leadership, and gender equality.

CHALLENGES AND LIMITATIONS

Many of the good-practice MHEWS initiatives highlighted in this study have not previously been well documented. Information on these initiatives was predominantly drawn from interviews held with key informants directly involved. However, the number and nature of the interviews was limited by informant availability, individual knowledge and experience, and access to online conferencing services. Therefore, it was outside the scope of the study to identify and fill all information gaps.



LEADING BY EXAMPLE: WOMEN-LED MHEWS IN THE PACIFIC INCLUSIVE AND ACCESSIBLE MULTI-HAZARD EARLY-WARNING SYSTEMS

CASE STUDY 1: WOMEN'S WEATHER WATCH, FIJI

COUNTRY

ESTABLISHED

Developed from 2004, named Women's Weather Watch in 2009.

IN PARTNERSHIP WITH

FemLINKpacific, Fiji Meteorological Service, Shifting the Power Coalition (StPC), ActionAid Australia. Australian Government Department of Foreign Affairs and Trade (DFAT) and Digicel Group.

COMMUNICATION METHODS

Two-way community radio, bulk SMS systems, social media and local radio and media.

HOW IT BEGAN

The concept for Women's Weather Watch (WWW) began in 2004 when femLINKpacific, a feminist media organization, interviewed women in remote communities who had been affected by the floods in the north of Fiji. These interviews established that local women had been excluded from designing, planning and implementing disaster relief and reduction efforts. For many of the women, it was the first time anyone had asked them about their disaster experiences, highlighting the serious lack of women's participation in DRR efforts. One interviewee highlighted that at the time, most humanitarian

response teams consisted of solely men. There seemed to be an underlying assumption that women could not speak on behalf of their families and communities, and did not have anything to contribute. In 2009, following Cyclone Mick, femLINKpacific again observed that women were excluded from relief efforts, leading to the initiative being officially established as Women's Weather Watch.

WWW began with simple SMS messaging, with focus on supporting community women leaders to understand and pass on the climate-related information and warnings to their communities. In 2017, WWW launched a bulk SMS system and began utilizing online media platforms, community radio, a podcast and a comic series called HEROWINS to disseminate messages and awareness. WWW is a strong example of innovation coming from Pacific women to meet a fundamental need that their communities receive accurate information during emergencies and disaster cycles.

HOW IT WORKS

· WWW is an interoperable communication platform, led by Fijian women, to monitor climate-related disasters in communities. It centres on twoway communication between communities and the WWW hub during emergencies and across disaster cycles.

- · WWW women leaders are trained
- > climate and weather knowledge - (reading and interpreting technical information)
- > technology use and conduct (mobile phone use, writing, sending and receiving SMS messages)
- > advocacy and communication skills (communication techniques and stakeholder engagement)
- harnessing traditional and local knowledge (sharing, integrating into messaging).
- Technical climate-related information and weather warnings are received by the Fiji Meteorological (MET) Service. In consultation with local and diverse women, this information is translated into corresponding messages appropriate for the context and in the local language. Messages are then stored in a digital message bank for quick access and use during disasters.
- Messages go through an approval process with government officials to ensure they are in line with national disaster communications and information.
- During a disaster scenario, warnings are received by the Fiji

MET Service and the corresponding WWW message is found in the message bank and sent through the network via an interoperable communication platform that uses bulk SMS system, two-way community radio and online social-media platforms such as Facebook and Viber. The bulk SMS system is coordinated from the Suva WWW hub.

 WWW network members can send live updates via SMS text messages back to the WWW hub, which is a powerful tool for monitoring unfolding scenarios on the ground. In many cases, WWW alerts and warnings reach rural communities before authorities and humanitarian actors can disseminate warnings and relief. This information can be utilized to develop community DRR plans and strategies.

Fiji: Susan Grey is the Executive Director of femLINKpacific, a Pacific feminist media organization that supports a network of rural women in Fiji as communities brace for more extreme storms from climate change.

©Susan Grey



CASE STUDY 2: WOMEN WETEM WETA, VANUATU

COUNTRY

Vanuatu

ESTABLISHED

2019

IN COLLABORATION WITH

Women I Tok Tok Tugeta (WITTT), Shifting the Power Coalition (StPC), Government of Vanuatu, Vanuatu Broadcasting Corporation and local media, ActionAid Australia, Australian Government Department of Foreign Affairs and Trade (DFAT) and Digicel Group.

COMMUNICATION METHODS:

Bulk SMS systems, and local media and radio, inter-personal and local or traditional communication systems.

REACH

Up to 80% of the Vanuatu population.

HOW IT BEGAN

Having recognized the impact and adaptability of the Fiji WWW model, ActionAid Australia and Action Aid Vanuatu through the Shifting the Power Coalition identified ways to consult leaders of the Women I Tok Tok Tugeta (WITTT) network on adapting the model for Vanuatu. WITTT is a network of women supporting women's rights and empowerment across the islands of

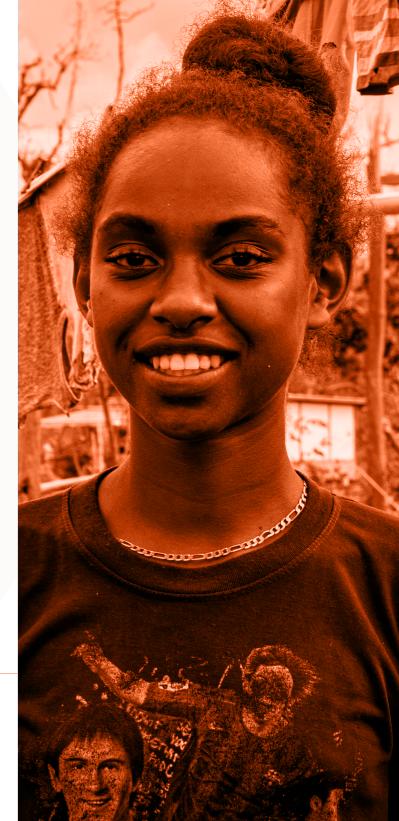
Vanuatu, and they agreed that the women-led EWS model would be something they would be interested in adapting to Vanuatu. The World Risk Report 2019 identified Vanuatu as having the world's greatest disaster risk and WITTT recognized women in Vanuatu experienced similar gaps and challenges in DRR and CCA to women in Fiji. Hence, Women Wetem Weta, (Women's Weather Watch [WWW]), was established.

HOW IT WORKS

- Building on the successful Women's Weather Watch model in Fiji, Women Wetem Weta works in a very similar way. A core group of women community leaders are supported in promoting women's leadership, participation and voices in inclusive disaster management in Vanuatu. The initiative is coordinated by a combination of paid and voluntary staff.
- As in Fiji, WWW women leaders are trained on:
- climate and weather knowledge
 (reading and interpreting technical reports and information)
- technology use and conduct (mobile phone use, writing, sending and receiving SMS messages)

- advocacy and communication skills (communication techniques and stakeholder engagement)
- harnessing traditional and local knowledge (sharing, integrating into messaging and documenting).
- Technical climate-related information and weather warnings are received from the Vanuatu Meteorology and Geohazards Department and National Disaster Management Office (NDMO). Community consultations with local WITTT women are held to develop messages that correspond with the technical information, ensuring messages are in the local language and contextually appropriate.
- Similar to the system in Fiji, the messages are collated in a message bank to be accessed easily in disaster scenarios, with messages approved by the relevant national authorities prior to dissemination. Approvals by government ensures that messages are in line with, and complement, national disaster information dissemination.
- When warnings and information are received by the MET services and NDMO, the corresponding messages are identified in the message bank and sent from the hub coordinator via an

- interoperable communication platform that utilizes a bulk SMS system, local radio and media. The bulk SMS system is coordinated from the Vanuatu WWW hub. Women community leaders then further disseminate the information to those in their communities without access to phones or radios.
- WWW network members can send live updates via SMS text messages back to the WWW hub, which are used to provide information to authorities and humanitarian actors on unfolding situations in communities. This information supports early action to reduce disaster impact, and can also support the development of local and community DRR and CCA plans.



Vanuatu: Angeline and her family were evacuated to Santo during the Manaro volcano disaster.

©UNI324716/Bobby Shing

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CASE STUDY 3: MERI GAT PAWA, MERI GAT INFOMESEN, PAPUA NEW GUINEA



COUNTRY

Papua New Guinea (PNG)

ESTABLISHED

2021

IN COLLABORATION WITH

Shifting the Power Coalition (StPC), ActionAid Australia, Australian Government Department of Foreign Affairs and Trade (DFAT), YWCA Papua New Guinea, Nazareth Centre for Rehabilitation (NCfR), PNG Assembly of Disabled Persons, Papua New Guinea Government, Pacific Disability Forum and Digicel Group.

COMMUNICATION METHODS

Bulk SMS systems, local media and radio, billboards, advertising on buses, and inter-personal and local or traditional communication systems.

REACH

Approximately 6.3 million people, over 50% of the population.

HOW IT BEGAN

Meri Gat Pawa, Meri Gat Infomesen (Women Have Power, Women Have Information) is led by ActionAid Australia in collaboration with local partner organizations, YWCA and PNG Assembly of Disabled Persons (in PNG), and NCfR (in Bougainville) to promote inclusive,

local and women-led COVID-19 prevention and response through the dissemination of locally appropriate messages. All three organizations have been working together since 2016 through the StPC. Meri Gat Infomesen was adapted from the Vanuatu WWW model and is currently focused on resourcing women's local leadership to address and mitigate the impacts of COVID-19. Information on the COVID-19 pandemic is not reaching remote communities. which increases overall risk and limits their ability to prepare for and respond to COVID-19. The Australian Government DFAT, through ActionAid Australia and StPC, has funded the initiative for one year and will look to continue or adapt Meri Gat Infomesen for the future, based on the initiative's findings.

HOW IT WORKS

- Meri Gat Infomesen provincial hubs, in Port Moresby and Bougainville, coordinate and manage the project's activities, led by StPC focal points and project staff. YWCA PNG has nine staff and 4,000 members; NCfR has 22 staff and a network of 498 women human-rights defenders.
- Trainings are held at the hubs on:
- COVID-19 pandemic and public health knowledge (including how to localise public health information)
- > technology use and conduct

(mobile phone use, writing, sending and receiving SMS text messages)

- advocacy and communication skills (communication techniques, stakeholder engagement, developing radio scripts, SMS and billboard messaging, developing SMS survey questions)
- harnessing traditional and local knowledge (sharing, integrating into messaging), particularly by bringing information and evidence on the impact of COVID-19 on remote island communities and linking this with food-security recommendations.
- Consultations were held with 250 diverse local women, including pregnant and lactating women, women with disabilities, young and older women, to identify priority issues for communities and determine what messaging will be sent out through the network. Messages are in English and Tok Pisin, and contextually appropriate. Messaging focused on dispelling COVID-19 misinformation, while also addressing issues felt on the ground by local women, such as gender-based violence and social inequality that were exacerbated by the pandemic.
- All messages are approved by the PNG Department of Health's Risk Communications and

Community Engagement Committee to align with government-led public health messaging prior to dissemination.

- The initiative then utilizes a bulk SMS system to send the pre-approved messages through the Digicel's PNG mobile phone network, which has a reach of over one million people. SMS messages are sent three times a week over a targeted three-month pilot period, reaching anyone on the Digicel mobilephone network.
- To capture a wider audience, particularly those without mobile phones, the initiative also disseminates information via electronic billboards in Port Moresby, a national radio campaign targeting young women, women with disabilities and women community leaders, as well as advertisements on the sides of buses. The billboard and radio campaign ran for a five-month pilot period.
- The initiative works closely with Pacific Disability Forum to target strategies to reach households with persons with disabilities who may not have access to a mobile phone. Meri Gat Pawa, Meri Gat Infomesen hubs enabled young women, women with disabilities and rural community mobilisers to use their local knowledge and expertise to develop and implement baseline surveys to develop lifesaving COVID-19 prevention, response and vaccine messages with an emphasis on enhancing COVID-19 prevention awareness and addressing vaccine hesitancy.
- Key messages for SMS, as well as radio and TV, have been developed through a consultative process with diverse rural, young women and women with disabilities to prioritize messages; the project works with the PNG Department of Health's Risk Communications and Community Engagement Committee to ensure consistency with governmentled public health messaging, as well as AHP partners to promote complementary initiatives. The SMS campaign reached 6.3million Digicel PNG subscribers.

Papua New Guinea: Sima Billy lives in Mirigini village in Port Moresby with her mother.

©UNDRR/Rose



LEADING BY EXAMPLE: WOMEN-LED MHEWS IN THE PACIFIC INCLUSIVE AND ACCESSIBLE MULTI-HAZARD EARLY-WARNING SYSTEMS

CASE STUDY 4: FIJI DISABLED PEOPLE'S FEDERATION **EMERGENCY OPERATIONS CENTRE, FIJI**



ESTABLISHED

The Emergency Operations Centre in 2018

IN PARTNERSHIP WITH

<u>Australian Humanitarian</u> Partnership, Shifting the Power Coalition (STPC), Fiii femLINKpacific, ActionAid Australia and National Disaster Management Office (NDMO).

HOW IT BEGAN

The Fiji Disabled Peoples Federation (FDPF) was first established in the late 1970s, known then as the Fiji Paraplegic Committee and became the Fiji Disabled Peoples Association in 1984. In 2012, it was named the Fiji Disabled Peoples Federation. FDPF is an umbrella body to the following Organizations of Persons with Disabilities (OPDs): Fiji Association for the Deaf, PsychiatricSurvivors Association; Spinal Injury Association; and United Blind Persons of Fiji. It has 18 branches across the east, west and north of Fiji.

In 2018, FDPF established and activated the Emergency Operations Centre (EOC) as part of the FDPF DRR unit, which is supported by the Australian Humanitarian Partnership. It aims to build DRR

capacities for persons with disabilities and advocates for inclusive DRR communications. Inclusion of women with disabilities is a priority.

FDPF is in the process of developing a Standard Operating Procedure (SOP) in consultation with the Fiji NDMO and the National Council for Disability. It also provides training on disability inclusion, and has developed a DRR toolkit for organizations to conduct more inclusive disaster preparedness

HOW IT WORKS

The Emergency Operation Centre (EOC) is activated during a crisis and aims to strengthen inclusive disaster response and ensure persons with disabilities are not left behind during disasters.

- Email notifications are set up so that the EOC receives disaster information from the NDMO and MET services.
- The staff or volunteers from each OPD then follow communication guidelines to share this information with their own OPD community focal points, who then disseminate the information throughout their own communities using the platforms and communication methods specific to each OPD. Messaging follows communication guidelines. However, each OPD determines the messages

disseminated within their own community, both in terms of the content and how they are disseminated. OPD community focal points are then able to report back to the EOC on the status of persons with disabilities in their communities.

- Information is disseminated by SMS messaging, phone calls, emails, video conferencing, radio and tv campaigns. OPDs utilize different forms of communication to disseminate information to their specific networks. For example, the Fiji Association for the Deaf utilizes video conferencing to inform their networks on their own platforms.
- The FDPF engages women with disabilities in advocacy and training programmes to empower them to lead independent lives and have representation in decision-making processes.
- FDPF members undergo training
- > CCA and DRR knowledge - (reading and interpreting technical reports, disaster cycles etc.)
- > advocacy and communication skills (communication techniques and stakeholder engagement).
- · The EOC is coordinated by a combination of paid and voluntary staff. OPDs share

their resources with the EOC, such as vehicles or equipment, to facilitate operations, as the EOC does not have, or receive, a specific budget to support its work.

 The FDPF implemented an 18-question survey using the Fiji NDMOs platform for 'rapid pro text messages', which was used to gather information on how persons with disabilities coped with the first wave of COVID-19 and tropical cyclone Harold.



Fiji: Laiteniadra Tokaimasi washes clothes in a freshwater stream in Tavea vllage after Tropical Cyclone Yasa devastated her community with winds as high as 350 km/h.

©UN0400140/Allan Stephen/Infinity Images

3

INCLUSIVE AND ACCESSIBLE MHEWS: RECOMMENDATIONS FOR SUCCESS

Build on existing connections and networks within communities

Build and unlock community knowledge

Facilitate community-based data collection and hazard monitoring

Deliver effective early-warning messages

Integrate and invest in community- and women-led initiatives as an essential part of the MHEWS ecosystem

Recognize the broader benefits of gender-transformative change



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INCLUSIVE AND ACCESSIBLE MHEWS: RECOMMENDATIONS FOR SUCCESS

The successful establishment of women-led MHEWS has shown the value of these initiatives in complementing and enhancing the effectiveness of government-led MHEWS and DRR systems overall for ensuring they are inclusive and accessible. The following recommendations are drawn from the experiences and lessons from the women-led MHEWS in the Pacific, as well as other literature on similar initiatives elsewhere. It also shows how each of the recommendations contribute to the different stages of well-functioning MHEWS.

As a contribution to the midterm review of the Sendai Framework for Disaster Risk Reduction, these recommendations can help to inform investments and decision-making that will accelerate the achievement of Target G of the Sendai Framework for Disaster Risk Reduction.



BUILD ON EXISTING CONNECTIONS AND NETWORKS WITHIN COMMUNITIES





The success of any MHEWS relies on its strong connection with communities. Regular and inclusive engagement with communities facilitates trust and positive relationships between programme implementors and community members. Community engagement is a vital building block to enhancing the success of MHEWS initiatives – the more inclusive it is, the more likely initiatives will be sustainable and reflect the needs and priorities of all community members, including diverse groups of women. Using community connections and networks that already exist can also enhance community cohesion.

In the **WWW** models, women leaders collated the data and phone numbers of the women they represented to add to the bulk SMS database.

Women I Tok Tok Tugeta operate at provincial and national levels and were able to identify women across the entire region who were existing community leaders, to join the initiative.

This is often a critical gap in many national-level MHEWS, which tend to be more top-down approaches, and the following recommendations provide valuable insights into ways to bridge this divide.

LISTEN AND LEARN THROUGH EXISTING NETWORKS

Rather than create new platforms artificially for community engagement, the development of MHEWS are most effective when they are built on the efforts of existing community networks wherever possible.

This was a key lesson from the women-led MHEWS examined in this study. This process not only contributed to efficient programme design, but by utilizing existing women's social and professional networks, the initiatives were able to achieve strong and inclusive community engagement. Building on the efforts of existing networks brought about positive change in several ways:

- Encourages locally-led information and risk identification. Tapping into networks established by local women encouraged continual engagement with local women and the wider community. It was found that local women have a good knowledge of all community members and can identify those from marginalized groups who may require specific support and whose needs and risks are not being adequately addressed. If these women are engaged through their existing networks, it can lead to a wealth of valuable local knowledge.
- Saves time and resources. Developing strong networks across communities, provinces, countries and regions can take years to build community relationships and connections. If effective networks exist, that have been established and implemented by local women, supporting and resourcing these networks can be an effective way to identify women community leaders and focal points.

Identifying and bringing together the right partners encourages more effective MHEWS. This is considered foundational for success, with the following elements identified as especially important:

- Alignment of mission or focus: Ensuring the values and missions of partner organizations align and focus on inclusion, gender equality and elevating women and their voices. At the core of inclusive and accessible MHEWS is providing a platform for women and engaging like-minded organizations.
- Ensure organizations want to engage: It is important to ask if local partners want to participate and implement DRR and MHEWS initiatives in their own context, and to identify its relevance to their constituents clearly.
- Contribute to existing efforts: Ensuring that support and resources contributes to the existing work of organizations and networks helps ensure sustainability by building a strong foundation for long-term action and commitment to inclusive DRR and MHEWS – an important change from simply paying organizations to roll out a pre-designed model.

When ActionAid and Shifting the Power Coalition first engaged with YWCA and NCfR in **PNG**, a cross-coalition discussion was held, organised with ActionAid Vanuatu. Upon consultation, YWCA and NCfR determined that a women-led MHEWS model would be adaptable to suit their needs and local context.

WOMEN LEADING THE CONVERSATION

Much of the existing international guidance in this area suggests that women should be included in decision-making and have a 'seat at the table' with men when discussing and designing MHEWS and DRR systems. However, sitting at the table is only effective when women are confident in voicing their perspectives and those inputs are taken seriously by their male counterparts. Too often, women's voices are effectively silenced by systemic discrimination, as well as social and cultural norms, even when they may be represented on paper or be physically present in the room.

One way that tWWhe women-led MHEWS initiatives addressed this challenge was by **creating women-led platforms led by women representatives**, many of whom had received training in relevant technical areas of climate and DRR and were able to engage on an equal knowledge-footing. Representatives from government and other agencies were then invited to participate in their meetings and consultations in order to hear the perspectives of women and their communities, rather than women having to compete for space in other fora. In this way, women-led platforms have been able to successfully lead the conversation, exert influence and ensure women's agency is respected and their voices are heard.

RESPECT AND ENCOURAGE DIVERSITY

When selecting networks or groups to engage with, it is important to consider the extent to which they reflect the diverse range of experiences of people in the community. This will enhance inclusive decision-making and support the priorities and needs of many different groups of women. It requires careful consideration of:

• Different demographics. MHEWS should consider the ways age; gender identity and sexual orientation; disability (with specific consideration given to diversity within disabilities and the different priorities and needs that women with disabilities may have); socioeconomic background; education levels and types; language; race; religion; migration status; geographic location; and other factors inform an individual's vulnerability to disaster risk

- different needs and abilities. Each women-led EWS
 group emphasised the importance of acknowledging
 the diversity within groups of women. For example,
 women with disabilities may live with a vision,
 hearing or communication impairment, lack of
 mobility or a cognitive disability. Each has specific
 needs and priorities for DRR as well as in their own
 day-to-day setting
- intersectionality across different groups.
 It is important that intersectional dynamics between groups are also taken into account, so that information and training can be targeted appropriately.

In **Vanuatu**, training was amended to account for the ages of women. It was found that younger women were generally more technologically advanced and required less training than older women. However, training was not segregated simply by young and older women. Other factors were considered. For example, some women who experienced early marriage did not have access to formal schooling and therefore had similar levels of understanding of technology as the older women.

Considering **intersectionality** is not always straightforward, but engaging and asking women what they would like to do is a good starting point.

We have lived experience and know what

Lanieta Tuimabu from Fiji Disabled People's Federation (FDPF) accentuates the need to consult with women who have a disability rather than making assumption of what could work.

CREATE SAFE SPACES FOR DIALOGUE

Consulting with communities is vital in any DRR programme, but particularly for inclusive and accessible MHEWS, where in some communities, women have not necessarily had the space to voice their disaster experiences, needs and priorities.

Once networks and core organizational structures are established, MHEWS initiatives should develop inclusive community-consultation processes and mechanisms. It is important to organise and consult deeply with groups of diverse women and other community members to ensure they are contributing to, if not setting, the agenda for EWS initiatives.

The following measures were found to support inclusive community consultations on MHEWS:

- Providing safe spaces. Consultations should be conducted in spaces and environments that are safe, especially for women, where people feel comfortable to voice concerns and insights freely, without fear of criticism, judgement or reprisal. This includes the physical environment, as well as the composition and behaviour of those present. The premise of safe and inclusive spaces for women in DRR settings is well documented in other literature⁴⁴ and was also highlighted by interviewees from each women-led initiative.
- Accessibility considerations. Consultation spaces and means of communication should be accessible to everyone. This includes consideration of people who may have:
- different mobility. Accounting for different types and degrees of mobility and physical movement of attendees.
- different cognitive and learning abilities.
 Considering women may have different levels of education, literacy or learning abilities



Carol Angir - Women's Rights and Emergencies Manager of ActionAid Australia

- different visual and auditory needs. Considering people who may need braille or large text, or the use of sign language.
- different time commitments. Holding child-friendly consultations, or at appropriate times for those with family or work commitments.



One of the key lessons from women-led MHEWS initiatives is the importance and benefits of supporting communities in accessing, developing and contributing to **disaster risk knowledge.**

This involves a range of knowledge and skills that extend far beyond the scope of early-warning messages themselves. This knowledge may span into areas of wider DRR, climate change, the use of technology, advocacy, politics, effective governance and social change. By developing knowledge in these different areas, communities develop agency to make their own informed choices and opinions about early warning and early action, and are better positioned

In **Fiji**, representatives from the Disabled Peoples Federation went to consult government officials, but when they arrived, the government building was not accessible for those in wheelchairs.

In PNG, Meri Gat Infomesen use the 'On the Mat' methodology developed by StPC, which is a trusted space where women sit on a mat and discuss and organise efforts. Each women-led initiative described similar scenarios, and in some instances, groups held consultations while cooking and eating together. These spaces are also an opportunity to share and document women's rich traditional and local knowledge.

to influence and strengthen wider MHEWS positively. For women in particular, agency is a key ingredient for their empowerment, which in turn, strengthens their resilience and supports transformative social change. While disaster knowledge and information is still not widely accessible in many communities, the women-led MHEWS initiatives have tried to remove some of the barriers that women, in particular, face in understanding disaster risks faced by their communities.

FOSTER TECHNICAL KNOWLEDGE ON CLIMATE AND DRR

A fundamental component to more inclusive and accessible MHEWS is access to knowledge and skill development, which has been found to be lifechanging for many women and communities in the Pacific and around the world. For those involved in women's networks and MHEWS initiatives. developing a foundational understanding of weather, climate and DRR knowledge is central to being able to communicate messages to their communities effectively. While technical climate and disaster information is often inaccessible to those who are not trained, and gender inequality often still limits women's access to information more broadly, enhancing women's knowledge and understanding on climate and disaster risk can help build confidence and enable women to better advocate and support their communities.

Each women-led MHEWS initiative in this study encouraged women's learning and understanding of technical knowledge in both DRR and communication technology. The following training has been supported through these initiatives:

Disaster and climate-related knowledge:

- · Different types of hazards.
- The roles of national services and departments (for example the MET service and NDMO).
- How to read and interpret technical reports (for example, weather or health reports).

⁴⁴ For example, Quijada Robles, Cindy Patricia, and Melody Benavidez (2018). Gender Equality and Women's Empowerment in Disaster Recovery. Washington: The Global Facility for Disaster Reduction and Recovery (GFDRR); UNFPA (2015). Women & Girls Safe Spaces. Amman, Jordan: United Nations Population Fund.

- · Different stages of disaster cycles and management.
- Types of information received at the different stages of the disaster cycle, and corresponding preparedness and response actions.
- How to communicate this knowledge effectively to communities.

This type of training was critical for enabling women to feel ready to mobilise during disasters, particularly if women have not lived through specific disasters before and were not able to draw from lived experience.

For both **Fiji** and **Vanuatu WWW** initiatives, weather and climate sessions were held by Shifting the Power Coalition. A simple example of this training was women receiving a sample of official information, and being asked to translate it and demonstrate, based on the information, what message they would share with their community.

In **Vanuatu**, representatives from different sectors were brought in to speak to the women, the women leaders also attended learning sessions at the Meteorological Offices where they were able to engage and build relationships with officials.

In **Vanuatu** and **PNG**, women leaders attended COVID-19 educational sessions run by the World Health Organization (WHO) and upon completion shared their knowledge and consulted their networks to develop messaging on COVID-19.

Training in the use of communication technology and message dissemination:

- · How to use a mobile phone's basic functions.
- · How to read, write and send SMS text messages.
- Usership conduct, such as how to be appropriate and respectful when messaging, to whom messages are sent and how often.
- Media guidelines and the importance of accurate information.
- Communicating priorities of protection and early actions based on lived experience.

To develop the necessary skills and knowledge to use new technologies, training is required. In all womenled initiatives, this training was held internally by programme implementors. Shifting the Power Coalition held training for Vanuatu WWW, as well as PNG's Meri Gat Infomesen.

It was also found that one-off training is not sufficient.

Programme implementors need to be ready to hold as many training and learning sessions as it takes for people to feel confident in their knowledge, and provide opportunities for continuing to update their knowledge. Community-based drills and practical exercises and experience are also key to developing capacities.

The successes of the women-led MHEWS initiatives in building women's knowledge and understanding through education and training, hold an important message for both donors and implementors of MHEWS: the process of knowledge-building takes time and is achieved incrementally, so funding and project plans need to provide the opportunity for this to occur organically.

Many participants had not written, read or sent SMS text messages prior to these programmes. Flora Vano from **Women Wetem Weta** and Carol Angir of **ActionAid Australia** said that some women cried when they first learnt how to use their mobile phones because it reflected their self-empowerment, which was stemming from their access to information and technology.

HARNESS TRADITIONAL AND LOCAL KNOWLEDGE

Effective, inclusive and accessible MHEWS should harness local and traditional knowledge and draw on the wealth of local disaster risk knowledge women and other community members have. Information passed down through generations and within communities, can strengthen the overall effectiveness of MHEWS.

This can be achieved by encouraging communities to make connections between modern science-based knowledge their own traditional knowledge and lived experience, and to share that knowledge between generations. Traditional knowledge evolves when changes occur⁴⁵ and the women-led MHEWS initiatives observed that the ability of women to recognize traditional and environmental danger signs were enhanced, not replaced, by their scientific and technical knowledge.

UNDRR and ICCROM⁴⁶ are developing a <u>Words into</u>
<u>Action</u> guide on using traditional knowledge for DRR.
Harnessing and documenting traditional and local
knowledge will support its use to better prepare
communities to prepare and respond to disaster risks.⁴⁷

ENHANCE ADVOCACY AND COMMUNICATION SKILLS

Across the four Pacific women-led MHEWS initiatives, skill-building went far beyond technical DRR knowledge. An important aspect of the training was the development of wider transferable skills, and practical advocacy tools and techniques such as:

 learning how to identify different stakeholders, and then understand how to communicate and influence them, such as weather or disaster experts, or government personnel – who were typically men – to ensure community perspectives and needs were being considered In Vanuatu, WWW recently held a learning session to build climate knowledge. Many of the women already knew a lot of the information but described it in their own ways. For example, they knew what environmental signs to watch out for such as changing colour or the falling of leaves, changes in behaviour of birds and other animals, ocean patterns etc., and what that meant in changing climate or weather patterns.

Having acknowledged that women have rich traditional knowledge that complements science, **Vanuatu WWW** has made agreements with local women to begin documenting their knowledge. They noted the importance of consulting women from different locations and provinces, as each area faces unique challenges (for example, exposure to droughts, El Niño, COVID-19) and will have different insights on different hazards.

- professional and personal etiquette, such as being on time to meetings and making proper introductions to make a positive impact
- learning how to initiate conversations about rights, protection and other sensitive issues of concern with different stakeholders
- critical thinking and problem solving
- building confidence to be more assertive and have a voice in new spaces.

45 Jigyasu, Rohit (2020). Harnessing the Knowledge of Indigenous Communities for DRR. UNDRR, 6 August.

- 46 The International Centre for the Study of the Preservation and Restoration of Cultural Property is an Intergovernmental organization that promotes global cultural heritage conservation.
- 47 gyasu, Rohit (2020). Harnessing the Knowledge of Indigenous Communities for DRR. UNDRR, 6 August.

Having experienced a general lack of inclusive information shared in unfolding disaster scenarios, **FDPF** community focal points advocate for the use of disability-inclusive information to their divisional and district officers. For example, sign language interpreters and subtitles at press conferences

It was found that the development of these skills brought about many positive changes, which were ultimately of benefit not only to women but other community members as well:

Development of wider knowledge and community respect in other areas of life beyond MHEWS and DRR. Many of the women involved in these initiatives have a genuine desire to learn and gain knowledge about a wide range of topics they had not previously been exposed to. Using the knowledge gained in these initiatives as a starting point to nourish their learningled to different career and educational pathways.

Some village head men and chiefs have started asking the **WWW** women what the latest MHEWS or DRR information and guidance is, demonstrating that information can shift power in communities where women have been typically excluded from decision-making and leadership.

Many women initially involved themselves in the projects because they wanted to better prepare their communities in the face of disasters. These initiatives provided the platform for women and marginalized groups to do exactly this, while also providing them with the transferable skills and knowledge to feel empowered to create change for themselves and their communities in other areas of their lives.

In Vanuatu, a number of WITTT women ran in the local election, with the support of the network to stand up and take space and voice. Vanuatu WWW members also spoke to their local members of parliament with community demands. Officials initially responded by asking the women if foreigners had told them what to say, the women passionately responded that they had set their own agenda, reflecting their ability to critically think and analyse situations, and continued with their presentation.

Amplifying women's knowledge and skills so they can communicate and lobby in government spaces. Engaging with government is a way for communities to hold governments accountable to commitments and advocate for their needs.

For many women, participating in the MHEWS initiatives was their first time of having access to technical training, and space to develop practical advocacy skills. With consistent and regular training, women are confident in their knowledge and are contributing to community solutions on DRR matters.

Communities are starting to see these women as key sources of DRR information, which supports gender equality, as men understand the value of women's networks and that all community issues are women's issues as well.

ActionAid Australia's Carol Angir encourages learning across the Pacific and Asia and appreciates the "opportunity to interact with sisters in Asia". Carol noted that each region of women can learn from each other's experiences, stating "those learnings are critical for building women's knowledge."



FACILITATE COMMUNITY-BASED DATA COLLECTION AND HAZARD MONITORING

Hazard detection and monitoring are key to ensuring good MHEWS. Both these elements are significantly enhanced when communities are directly involved in the collection, monitoring and management of hazard information and data.

This does not replace the need for more formal, government-led scientific data collection and research, but local knowledge can provide unique insights and evidence about patterns and trends, which are highly contextualised and specific to different individuals and groups and that might otherwise be overlooked.

Based on learning from community- and women-led MHEWS initiatives, communities should be enabled and supported in fulfilling this role, both in their technical capacities and overall resources, human and financial.

SUPPORT COMMUNITY DATA COLLECTION

This includes capturing sex, age and disability disaggregated data to allow trends to be identified for different hazards across different communities and groups over time. It can support post-disaster needs assessments and highlight prolonged needs of certain women and other community members. Further, capturing data can enhance advocacy for further funding, and help shape policy and legislation recommendations.

Good community- and women-led data-collection systems include the following elements:

- Building a core database of community information. Ensuring the capture of disaggregated data that accounts for sex and gender identity, age, disability, mobility, and the number of people living in households.
- Capturing data regularly across time periods.
 Ensuring initiatives start with baseline data so that needs and impacts over time can be identified and quantified.

- Having established channels for communities
 to report hazard information in a timely manner.
 Remoteness and telecommunications limitations
 can prevent community members from being able
 to report hazard and risk information in a timely way.
 However, through good community connections
 and awareness training, creative solutions, such
 as through CB, UHF and VHF radio networks or
 volunteers on bicycles, can be found for sharing
 information quickly.
- Tagging information to track the needs of particular groups. Enabling readily available data on trends and barriers that can be used to enhance the effectiveness of early-warning messages and better target post-disaster response efforts.

Protecting privacy. National privacy legislation may pose legal issues for the set up and use of bulk SMS services. The collection of large data sets that may include personal details such as names, age, sex and phone numbers may make these systems vulnerable to unauthorised use and create risks for individuals. Governments should support local partners with information about relevant privacy legislation and, where feasible, provide adequate resources for training, policy development and security measures, to ensure compliance.

In **Fiji** and **Vanuatu**, women leaders initially set up the core database of member information by collating the details of the women they represented across the network.

Shifting the Power Coalition described the effectiveness of using a digital tagging system so that when information came in from particular women in the network, they could assign certain tags to individual data sets, which over time helps to identify trends. This enabled them to track specific ongoing needs of certain groups of women or women located in different geographic locations.

INVEST IN THE CAPACITIES OF LOCAL PARTNERS

When considering the implementation of inclusive and accessible MHEWS, it is important to acknowledge that local partners may be at different stages of development, with different organizational structures and capacities. It is important that these organizations are not set up to fail through a lack of inadequate ongoing support.

Encouraging, investing in, and supporting local partners in properly engaging communities in hazard monitoring supports effective MHEWS. Building adequate human-resource capacities to maintain local systems and processes, as well as overall management capacities makes an important contribution to the wider DRR and MHEWS system.

Based on the lessons from existing community- and women-led MHEWS initiatives, the following aspects were considered important for ensuring that local partners remained effective:

Build a strong and diverse volunteer base that
continues to evolve and does not rely too heavily on
a small group of individuals. This requires ongoing
efforts to encourage and support new volunteers
through training, recognition and opportunities for
personal and professional growth. The group must
be large enough to share responsibilities, to avoid
over-burdening a few members, and able to sustain
frequent turnover of volunteers as they drop in and
out of the programme at different times.

In **PNG** and **Vanuatu**, messages on COVID-19 need to be approved prior to dissemination, through a formal sign-off process in liaison with government. This requires a level of professionalism and consistency that should be undertaken by a paid staff member.

In **Vanuatu** and **PNG**, the hubs are managed by one or two paid staff, who act as community mobilisers and are part of the wider provincial networks.

Others who engage in the system are voluntary. There is a risk that voluntary roles can add pressure to women's existing responsibilities. However, it has been reported that these women feel they are gaining other reward such as increased status and recognition, access to a smartphone, new knowledge and learning, and general support.

- Support a small number of paid positions, to ensure quality and consistency. While communityand women-led MHEWS are largely volunteer-based, it was felt the addition of a small number of paid staff was important for the continuous monitoring of hazards, and helped to ensure the project stayed on track through conducting research and analysis, managing volunteers and overseeing the project's development. It also helped to ensure consistency of engagement with key government agencies and other organizations.
- Develop financial self-sufficiency. Local partners should ideally work towards developing their own broad funding base to ensure the ongoing sustainability of their work. This may require initial investment from government or donor partners to develop capacities in good financial management and resource mobilisation (particularly from local sources as discussed below).
- Identify domestic and local resources. Many local partners involved in DRR or MHEWS are often dependent upon international development funds, which are typically of short duration and for specific programme activities rather than the longer-term sustainability of women's networks. Thus, it is important that inclusive and accessible MHEWS initiatives support local partners in identifying sources of domestic or local funding, to sustain their work in the longer term. These sources may include:
- annual contributions from government, working in cohesion with national efforts
- a contribution scheme with local organizations and businesses

- a user contribution or community-funding model that takes into account the different resources available across different income groups
- fundraising events and donation campaigns, income from property leases, fee-for-training services).
- social enterprises or micro-businesses to support ongoing costs (for example, catering services, retail
- Use the influence of larger partners. For many
 women-led and community-based MHEWS, some
 of the biggest operational costs were found to be
 through telecommunications companies, such as
 charges for sending bulk SMS. Typically, the more
 sophisticated the technology, the more costly.
 Communities or small organizations often face
 challenges engaging with larger telecommunications
 companies and may not always have the position or
 power to be able to negotiate better prices.

In **PNG ActionAid** used its position as a larger partner in the region to negotiate the contract with the telecommunications company, which would be supporting the transfer of MHEWS messaging by SMS and represented around 70% of the total cost of the programme.

ActionAid supported YWCA and NCfR in PNG in managing a large six-month funding grant for its women-led EWS initiative, to ensure it was well set up to receive future grants.

ActionAid Australia's Executive Director emphasised that there are ways of managing the financial requirements of international donors while still empowering local organizations and their people on the ground to pursue the agenda.

However, there are opportunities for governments or larger public or private organizations with an international or regional presence to play a strong brokering role on behalf of communities and local partners, to negotiate more favourable contracts and partnerships. This also avoids placing unnecessary pressure on smaller organizations that have not yet developed the necessary financial capacities or legal facilities to manage these types of contracts. It highlights the need for complementary stakeholder efforts to ensure MHEWS is effective and sustainable.

13 INCLUSIVE AND ACCESSIBLE MHEWS: RECOMMENDATIONS FOR SUCCESS INCLUSIVE AND ACCESSIBLE MULTI-HAZARD EARLY-WARNING SYSTEMS



DELIVER EFFECTIVE EARLY-WARNING MESSAGES

If warnings about potential hazards and disasters are misinterpreted, or it is unclear what action should be taken as a result of the warning, then people's lives and property are at risk. For MHEWS to be effective, warning dissemination and communication should be accessible by the whole community and sent in ways that all members of the community can access and understand. Ensuring that early-warnings include clear information on the early actions that should be taken as a result of hazards is essential.

The prevention-control information on COVID-19 from international sources often referred to 'physical distancing'. However, this term did not provide clear enough guidance for local communities. In some instances, this was translated to 'stand 1.5m away from other people' so communities clearly understood what was required.

USER-DRIVEN EARLY-WARNING MESSAGES

The best way to ensure messages are understood is by supporting communities in developing the messages themselves, to ensure they are relevant for their particular context. This is a key component of more inclusive and accessible MHEWS.

In many countries there are **multiple language groups** to consider. There are also particular communication requirements to ensure that information is **accessible to people with different levels of literacy and disability.** In the Pacific, it has also been found that **different social and cultural contexts** affect the openness and willingness to trust information received and engage in consultations. An activity shared across all the Pacific women-led MHEWS initiatives was holding community consultations to translate technical

DRR and climate-related information into user-friendly, inclusive, and locally relevant messages for community preparedness and response.

As the Women's Rights and Emergencies Manager of Vanuatu WWW states, "there is a way to talk" in these spaces, which is important for organizations to learn about and understand, to build trust with the community. This is particularly important in communities where it may be the first opportunity for women to share their disaster experiences with each other, and they may need greater support and encouragement to feel comfortable doing so.

Key to their success was that local women were involved in the development of the messages to be sent out across the network. This entailed:

- translating technical climate-related and disaster information into local languages. Consultations with local diverse groups of women were held to discuss the meaning of technical knowledge and decipher what that translates to in the local context and language. This process strengthened the DRR knowledge of the women involved and supported early action with clear messaging on what people should do as a result of the warning.
- determining clear community-friendly messaging.
 This was determined by utilizing women's lived experiences, traditional knowledge and official guidelines, such as mainstream media messages and national disaster advice.

A 'tropical low' weather warning in **Vanuatu**, translated to telling people to be extra careful of flooding, monitor children walking to school and be particularly careful at houses by the river.

These messages entailed warning information and clear messaging on what to do in disaster scenarios for preparedness and response. Messages were then documented in a database for quick use in disaster settings. Consultations were held any time new technical information came through that had not yet been translated.

Communication channels utilized across the women-led initiatives:

- Bulk SMS systems
- Two-way community radio
- Local radio stations
- Local podcast
- Comic-book series
- Word of mouth and traditional communication systems (house to house, village to village)
- · Hand-delivered written message
- Advertisements (billboards and buses)

USE MULTIPLE COMMUNICATION CHANNELS

Integral to more-inclusive and accessible MHEWS is information dissemination across multiple communication channels.

In the Pacific region, remote communities may not have phones, radios or reception, and warnings need to be disseminated in other ways. Utilizing multiple communication channels increases the likelihood of warning messages reaching those who need to hear them, including different groups of women and those in remote areas.

The use of multiple channels of communication through interoperable communication systems was highlighted by interviewees as key to effectively disseminating early-warning messaging across the Pacific region.

 creating a message bank of early-warning messages that have been predetermined in consultation with or by local women and in their languages.

These initiatives enable women to define their own early-warning agenda and determine what messages are needed to support early action and keep them safe. This is additionally empowering as women can also see their own influence on DRR and their role in ensuring the safety of the wider community.

The importance of having women-led **early-warning messages reviewed and approved by the relevant national authorities** was also considered essential, to ensure they were consistent with wider early-warning messages and to enable the local organizations to be considered a credible and trusted source of information to communities

The **Fiji WWW model** disseminates messages and information through two-way community radio, bulk SMS systems and local media. FemLINKPacific issues a comic-book series called HEROWINS to promote community awareness of the importance of women as first responders.

Meri Gat Infomesen utilizes alternative communication methods such as urban billboards and advertisements on the sides of local buses. All of the women-led EWS initiatives use local radio to raise awareness and share information.

WWW Vanuatu highlighted that in areas without reception or access to technology, their model utilizes verbal communication between people. This includes community leaders going from house to house and, where needed, walking to the next village to share the information. In some instances, written messages are sent with travellers into remote mountainous areas to hand-deliver warnings to women in these communities. Additionally, community announcements are also made. One group spoke about their village chief dedicating time for them to share messages at the end of church serms

HARNESS THE POWER OF NATIONAL AND LOCAL MEDIA

Communicating through local and national media can contribute to reaching larger audiences, in particular, women with different disabilities and those in rural communities. Smartphones enable people with disabilities to use apps that assist them in reading or hearing information. However, many women living with disabilities in the Pacific have limited access to smartphones. Hence, it is essential that MHEWS initiatives implement an array of communication methods that also reach those without phones.

RECEIVE REAL-TIME FEEDBACK

Live feedback mechanisms are valuable opportunities to collect real-time updates on the ground during unfolding disasters. They offer the potential to collate key information which, when communicated to the right groups, can potentially save lives, infrastructure and enable better-targeted relief assistance.

Developing integrated two-way communication in MHEWS and DRR settings can be a fast and accurate source of live information. The initiatives enabled two-way communication through radio and SMS text message and monitoring of the feedback through the provincial hubs.

There is potential to develop further feedback mechanisms, such as utilizing SMS messaging to roll out short surveys to collate feedback from women in the network. This data can then be used to measure impact, need or advocate in different spaces.

Shifting the Power Coalition noted that it is important that two-way communication systems do not contribute to the trauma of the unfolding situations, so it is important to work with small teams in communities who are supported and resourced, to act, seek, and send information quickly and accurately.

In **Vanuatu**, women used SMS text messaging to disseminate key information back to the programme hubs. Upon receiving an SMS message on hygiene and sanitary practices to prevent COVID-19, a rural woman was able to message back and inform the hub that their village had no soap or running water to implement the preparedness messages. This information was used to inform authorities and humanitarian actors who, in turn, provided targeted relief.

The **FDPF** was able to implement an 18-question survey using the Fiji NDMOs platform for 'rapid pro text messages', which was used to gather information on how persons with disabilities coped with the first wave of COVID-19 and tropical cyclone Harold. This information was used to advocate for disability perspectives in other areas such as safety and protection. The NDMO enabled free use of the platform for FDPF.



INTEGRATE AND INVEST IN COMMUNITY-AND WOMEN-LED INITIATIVES AS AN ESSENTIAL PART OF THE MHEWS ECOSYSTEM



COMMUNITY INTEGRATION INTO DRR AND MHEWS SYSTEMS



A key component for effective MHEWS is to ensure that community- and women-led initiatives are sufficiently invested in and integrated into mainstream national and regional systems, so they are able to complement and inform each other. This ensures inclusion and accessibility and enhances the coherence of the MHEWS overall. The following components contributed to successful integration:

In PNG, YWCA invited government officials from the Ministry of Health to attend an inception workshop where they shared information about the organization, and the objectives of Meri Gat Infomesen. This workshop, and the relationships formed, were key to the Ministry recognising YWCA as a trustworthy implementing partner, and enabled them to disseminate COVID-19 messaging to over 5 million people across PNG.

 Inclusive decision-making. Government-led committees, advisory groups and other decisionmaking bodies on DRR and MHEWS should include women and representatives from communities and local partners, to ensure the systems and services remain relevant to local needs. Women-led groups, in particular, should be included to ensure gender and diversity considerations are being adequately addressed. The **Vanuatu** Government recognized that remote communities did not have the resources to mitigate or respond to COVID-19. It resourced communities to establish task forces to mobilise COVID-19 community response, for example, building isolation areas and assessing community risk.

Each task force included one woman, pastor and chief. Some Vanuatu WWW members took part in these committees, working with government to implement the nationwide pandemic response.

· Engagement and recognition of communityled MHEWS. Governments should seek to engage with and recognize the platforms and networks of communities and local partners working on MHEWS initiatives. This can be undertaken through legal and policy change (discussed further below), memoranda of understanding, certification, or other formal processes to recognize the roles and contributions of these entities as part of the national system. Engagement may also occur informally, such as the participation of national or local officials in community MHEWS events, workshops and trainings. Such engagement helps to ensure not only that local-level MHEWS are better integrated but also enhances the credibility of communities and local partners, giving them greater access to volunteers and funding.

All messages from women-led MHEWS networks follow media guidelines and are approved by the relevant national governments prior to

the relevant national governments prior to dissemination. This ensures messages align with national disaster communication and information.

However, it can be a challenge to seek timely approval, which is essential in unfolding disasters. For example, it took **Vanuatu WWW** three weeks to receive approvals for their first message on the COVID-19 pandemic, where timeliness was essential to ensuring information was up to date and accurate

• Accessible standards and timely approval processes. It is important that locally established or community-led initiatives are compliant with relevant national standards and guidelines, to ensure that communities are receiving consistent messages and are not inadvertently placed at further risk through a lack of adequate quality control. To achieve this, governments should ensure that relevant standards are developed and shared with communities and local partners and, where it is necessary to obtain approvals for messaging because pre-approved messages are not appropriate for the situation, that such approvals can be given in a timely manner, through a clear process, ideally developed in consultation with the relevant partners.

RESOURCES AND SUSTAINABILITY

One of the challenges for women-led MHEWS, particularly those supported by international partners, is the limited availability of longer-term funding which limits the reach, scope and sustainability of these initiatives and reduces their contribution to accessible and inclusive MHEWS.

Short funding cycles do not adequately recognize that shifting social norms and creating environments for individuals to feel empowered can be a slow process. Often change needs to take place deep in the fabric of the community. As noted previously, learning and training opportunities need to be ongoing and require guaranteed long-term funding to enhance the genuine knowledge building and the likelihood of that transferring to social change. Allowing time and funding for incremental learning and community social change will enhance the overall effectiveness of MHEWS over time

For inclusive and accessible MHEWS to thrive long into the future, these initiatives need to be resourced sustainably. Ideally, these considerations should be included at the start of a new programme, so there is time to transition from short-term to longer-term resourcing without affecting the scale or quality of the programme.

This is an important factor to consider when working with MHEWS local partners. It also emphasises the need for these initiatives to complement wider national MHEWS systems.

LAW AND POLICY REFORM

Many governments have committed, through various internationally agreed instruments such as the Sendai Framework, as well as through their own domestic DRR strategies, to updating their legislation and policies to be more inclusive of whole-of-society interests. This can be a way of ensuring that women-led MHEWS initiatives continue to be recognized by governments and are mainstreamed in MHEWS and DRR through law and policy reform.

The challenge, however, is to articulate and understand clearly how laws and policies should be framed to ensure they achieve this purpose. The Checklist on Law and Disaster Risk Reduction developed by the IFRC and UNDP, provides detailed guidance for governments about the development of robust and inclusive disaster risk management legislation, including for MHEWS.

While not expressly highlighted during the consultations for this study, there are significant opportunities for governments to initiate legislative and policy reform in line with the checklist recommendations, including:

- formal recognition of the role of women and the value of community- and women-led MHEWS as an important contribution to whole-of-society DRR in the country
- institutionalising the role of women-led MHEWS as part of the permanent national and sub-national DRR and EW systems and decision-making bodies
- annual government funding allocations to support the ongoing operational costs of women-led MHEWS

ActionAid Australia and Shifting the Power Coalition emphasised that local womenled initiatives need the time and space to evolvenaturally. Programme partners can support this by ensuring theorganization and project's core operational costs are funded.

Assign, as appropriate, clear roles and tasks to community representatives within disaster risk management institutions and processes and decision-making through relevant legal frameworks, and undertake comprehensive public and community consultations during the development of such laws and regulations to support their implementation.

Sendai Framework, 27(f).

 government-funded training and capacity development opportunities for women and other community members in all aspects of DRM, including the creation of opportunities for women to take on leadership positions within national and local DRM systems.

Legislative and policy reform is a long-term process and requires intensive and sustained effort, it provides an important platform from which to build recognition, respect, credibility, resources, and ultimately, transformational change for the inclusion and representation of women within DRR systems, and their status in wider society.



RECOGNIZE THE BROADER BENEFITS OF GENDER-TRANSFORMATIVE CHANGE



FROM INCLUSION TO TRANSFORMATION



A significant success of the community- and womenled MHEWS is the ability to not only ensure the inclusion and participation of women within wider MHEWS and DRR systems, but also the shift in the role and status of women in the wider community. There has been significant and lasting impact on gender equality. The women-led MHEWS initiatives demonstrate that by harnessing the knowledge and networks of women, the safety of the whole community can be improved. This occurs in a number of ways: • Using newly acquired knowledge and skills to benefit the wider community. The women-led MHEWS initiatives successfully engaged with wider communities, sharing MHEWS and DRR updates, knowledge and skills. In many communities, after attending training or sessions, women organised community sessions where they would share the lessons with community members. After establishing these programmes, male community leaders reported being proud of their wives and daughters for taking part in these initiatives, and could see positive changes in their communities. It was found that engaging with the wider community in this way can contribute towards gender equality by transforming gender norms and roles in communities.

In **Vanuatu**, after learning how to write, read and send text messages, women went back to their communities and shared the skill with others. Some groups spoke of women being given the time and space to make announcements and provide updates after community events. Although, women noted that the male village chief stood next to them while they addressed the community, it still demonstrates that women are taking leading roles in communities.

• The multiplier effect of men supporting women.

When men support women, they can also influence other men's perspectives. It was noted that through these initiatives, communities can move beyond limited definitions of women's roles, towards recognition of women's value as leaders and thinkers who contribute to community solutions.

While gender equality is yet to be achieved in any community, the transformational potential of womenled MHEWS, as part of the wider movement towards women's empowerment, is something that cannot be ignored.

One interviewee spoke of a local **WWW** woman who was accepted into training but her husband blocked her from attending. The local women in the network rallied their own husbands who went and talked to this particular husband who eventually came around to the idea, and his wife was able to attend the training. This highlights the need for advocates of all

CONCLUSION

Too often, national DRR efforts, including MHEWS, do not recognize the value of the knowledge, skills and capacities of women, and the benefits of diversity in reducing disaster risk. This results in the important roles that women and people from diverse, marginalized, or disadvantaged groups already play in their communities being undervalued.

The development of accessible, inclusive, peoplecentred MHEWS is a priority for many disasterprone countries in Asia Pacific and is a part of key international commitments, including Target G of the Sendai Framework.

The experiences of women-led MHEWS in the Pacific Region have a lot to offer these systems:

- When well-resourced and integrated into mainstream MHEWS, they are an important means of capturing the diverse voices and perspectives within communities, and help to ensure that lifesaving messages and support are relevant and well-targeted.
- As stand-alone initiatives, they offer valuable lessons for effective community engagement, communication channels and community-led approaches that can significantly improve the overall effectiveness of DRR and MHEWS.

By supporting women-led MHEWS initiatives, government planning and decision-making can have a positive and transformative impact on the empowerment of women and others in society.

Supporting women and diverse community members in engaging, learning and influencing mainstream DRM systems and processes increases their social value and respect, which leads to greater empowerment, and more opportunities to fully realise their human rights, which benefits society as a whole.

When we shift the power, we will ensure decision-making power and resources reflects the needs of all the community.

Lucille Chute in Shifting the Power Coalition, "Climate Connections: Climate Crisis to Climate Justice", video, 2 August 2021.



REFERENCES

Alisjahbana, Kaveh and Bonapace. 2019. "The Disaster Riskscape Across Asia-Pacific: Pathways For Resilience, Inclusion And Empowerment". Bangkok, Thailand: ESCAP

Angir, Carol and Vano, Flora (2021). Interview by Humanitarian Consulting. Online, 20 August.

UN (1995). *Beijing Platform for Action, Section J. Beijing:* United Nations.

Bhagwan-Rolls, Sharon (2021). Interview by Humanitarian Consulting. Online, 18 August.

Brown et al. (2019). Gender Transformative Early Warning Systems: Experiences from Nepal and Peru. Rugby, UK: Practical Action

OHCHR (2018). Committee on the Elimination off Discrimination against Women: General Recommendation No. 37 on Gender-related dimensions of disaster risk reduction in the context of climate change, CEDAW/C/GC/37. Geneva: OHCHR.

Collymore, Jeremy (2019). *Model National MHEWS Policy: Adaptation Guide*. Bridgetown, Barbados: Caribbean Disaster Emergency Management Agency.

CREWS (2019). Annual Report 2019: Accelerating Life-saving Action, Maximizing Finance Effectiveness. Switzerland, Geneva: World Meteorological Organization.

Forster, Timothy, and others (2019). WorldRiskReport 2019. Berlin: Bündnis Entwicklung Hilft and Ruhr University Bochum – Institute for International Law of Peace and Armed Conflict (IFHV)

Higelin, Michelle (2021). Interview by Humanitarian Consulting. Online, 8 September.

IFRC (2012). Community early warning systems: guiding principles. Geneva: International Federation of Red Cross and Red Crescent Societies.

IFRC and UNDP (2015). The Checklist on Law and Disaster Risk Reduction. Geneva: International Federation of Red Cross and Red Crescent Societies and the United Nations Development Programme.

International Network for Multi-hazard Early Warning Systems (2018). *Multi-hazard Early Warning Systems:* A Checklist. Switzerland, Geneva: World Meteorological Organization.

Jigyasu, Rohit (2020). Harnessing the Knowledge of Indigenous Communities for DRR. UNDRR, 6 August.

Kioa, Moana (2021). Interview by Humanitarian Consulting. Online, 9 September.

Luther, Jochen, and others (2017). World Meteorological Organization (WMO)—Concerted International Efforts for Advancing Multi-hazard Early Warning Systems. Geneva: World Meteorological Organization (WMO).

Nafe, Yumi (2021). Interview by Humanitarian Consulting. Online, 25 August.

OHCHR (2015). 28/4. The right of persons with disabilities to live independently and be included in the community on an equal basis with others, A/HRC/RES/28/4. Geneva: OHCHR

OHCHR (2015). Thematic study on the rights of persons with disabilities under article 11 of the Convention on the Rights of Persons with Disabilities, on situations of risk and humanitarian emergencies, A/HRC/31/30. Geneva: OHCHR

OHCHR (2017). Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development, A/RES/71/313. Geneva: OHCHR.

Seneka, Helena (2021). Interview by Humanitarian Consulting. Online, 7 September.

SPC, and others (2016) The Framework for Resilient Development In The Pacific: An Integrated Approach To Address Climate Change And Disaster Risk Management (FRDP). Suva, Fiji: Pacific Community (SPC).

Sweta Singh, Shristi, Toganivalu, Ateca and Randerth, Fabian (2021). Interview by Humanitarian Consulting. Online, 8 September.

Tuimabu, Lanieta (2021). Interview by Humanitarian Consulting. Online, 21 September.

UNDRR (n.d.). Sendai Framework Indicators. Available at https://www.preventionweb.net/sendai-framework/sendai-framework-indicators. Accessed on 6 October 2021.

UNISDR (2015). The Sendai Framework for Disaster Risk Reduction 2015-2030. Geneva: UNISDR.

UNFCCC Paris Agreement on Climate Change (2015).

UNFPA (2015). Women & Girls Safe Spaces. Amman, Jordan: United Nations Population Fund.

UN Women and UNICEF (2019). Research Paper: Gender and Age Inequality of Disaster Risk. Geneva: UN Women and UNICEF.ActionAid Australia (2018). 'Women Wetem Weta': A mechanism that is transforming women's communication in the face of natural disasters in Vanuatu, 6 December.

FURTHER READING

ActionAid Australia (2018). 'Women Wetem Weta': A mechanism that is transforming women's communication in the face of natural disasters in Vanuatu, 6 December.

ActionAid Australia (2020). Women Wetem Weta Setting the Tone for Emergency Communications in Vanuatu, 30 April.

Australians Investing in Women (n.d). Women's Weather Watch - Women Leading Disaster Preparedness in Vanuatu. Available at https://www.aiiw.org.au/projects-post/womens-weather-watch-womenleading-disaster-preparedness-in-vanuatu/. Accessed on 23 August 2021.

Bhagwan-Rolls, Sharon (2017). Reaffirming Women as First-Responders One Year After Winston. Community Radio Times, Edition 2.

Bhagwan-Rolls, Sharon (2021). Meri Gat Pawa – Meri Gat Infomesen: Women Leading Inclusive COVID19 Response. *World Pulse*, 9 June.

Bhandari, Neena (2020). How Some Pacific Women are Responding to Climate Change and Natural Disasters. Inter Press Service, 20 April.

Bhatt, Mihir (2019). The Context of Trans-Boundary Early Warning System. Trans-Boundary Early Warning Systems in Asia. Issue No. 180, January. Ahmedabad: All India Disaster Mitigation Institute. Collyore, Jeremy (2019). Model National MHEWS Policy: Adaptation Guide. Brigetown, Barbados: Caribbean Disaster Emergency Management Agency.

femLINKpacific (2019). Innovation station: Women's Weather Watch Fiji, 28 January.

femLINKpacific (2020). Women's Weather Watch Amplifies Women's Role As First Responders, 13 October.

Nakasu, Tadashi (2018). Strengthening Multi-Hazard Risk Assessment and Early Warning Systems with Applications of Space and Geographic Information Systems in Pacific Island Countries. Bangkok: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

Pacific Resilience Partnership (2021). Pacific Resilience Partnership (PRP) Technical Working Group on Localisation. Pacific Resilience Partnership.

Quijada Robles, Cindy Patricia, and Melody Benavidez (2018). *Gender Equality and Women's Empowerment in Disaster Recovery.* Washington: The Global Facility for Disaster Reduction and Recovery (GFDRR).

Shaw R., Lu L., Lian F. (2017): Science Technology Plan for Disaster Risk Reduction: Asian and Pacific Perspectives, ICSU and IRDR, Beijing, China, 60 pages. Shifting the Power Coalition (2020). Mobilising women's leadership solutions for protection and recovery in a time of COVID-19 and TC Harold. Shifting the Power Coalition and ActionAid Australia.

Shifting the Power Coalition and The Feminist Humanitarian Network (2021). Shifting the Power Together: Pacific Women-Led Responses to COVID-19. Shifting the Power Coalition and The Feminist Humanitarian Network.

SPC et al., (2016) The Framework for Resilient Development In The Pacific: An Integrated Approach To Address Climate Change And Disaster Risk Management (FRDP). Suva, Fiji: Pacific Community (SPC).

Joseph-Brown, Lynette S. and Tuiloma-Sua, Dawn (2012). Integrating Gender in Disaster Management in Small Island Developing States: A Guide. La Habana, Bridgetown and Suva: Caribbean Risk Management Initiative – UNDP Cuba, UNDP Barbados and OECS, and UNDP Pacific Centre.

UNDRR (2020). Words into Action: Nature-Based Solutions for Disaster Risk Reduction. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR).

UNDRR (2021). Words into Action: Developing National Disaster Risk Reduction Strategies. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR).

ANNEX 1. KEY INFORMANT INTERVIEWS

Name	Organization	Date	Method
Sharon Bhagwan-Rolls	Shifting the Power Coalition	18.8.21	Online conferencing
Carol Angir	ActionAid Australia	20.8.21	Online conferencing
Flora Vano	ActionAid Vanuatu	20.8.21	Online conferencing
Yumi Nafe	Ministry of Land and Natural Resources Tonga	25.8.21	Online conferencing
Helena Seneka	YWCA Papua New Guinea	7.9.21	Online conferencing
Michelle Higelin	ActionAid Australia	8.9.21	Online conferencing
Shristi Sweta Sing	Fiji Broadcasting Corporation	8.9.21	Online conferencing
Toganivalu Ateca	Fiji Broadcasting Corporation	8.9.21	Online conferencing
Fabian Randerth	Fiji Broadcasting Corporation	8.9.21	Online conferencing
Moana Kioa	National Emergency Management Office (NEMO) Tonga	9.9.21	Online conferencing
Lanieta Tuimabu	Fiji Disabled People's Federation	21.9.21	Online conferencing



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