## **NEWS & VIEWS**

## Building the Road to a Resilient Asia-Pacific: A New Dawn Begins for Women's Leadership in Disaster Risk Reduction in Samoa

Saumya Singh<sup>1</sup> · R. K. Mall<sup>1</sup>

© The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2023

"You educate a man; you educate a man. You educate a woman; you educate a generation"

-Brigham Young

Every year thousands of catastrophic disasters result in both tangible and intangible losses across the globe (UNISDR 2015; Mall et al. 2019). Loss of life, uprooted livelihoods, destruction of ecosystems and an irreversible loss of natural and cultural heritage occur due to disasters (Hung et al. 2016; Sudmeier-Rieux et al. 2021; Nohrstedt et al. 2022). In the year 2022 itself, a cumulative of 387 natural hazards and disasters were recorded globally affecting 185 million people with 30,704 deaths and an economic loss of US\$ 223.8 billion (CRED 2023). Whilst the aftermath leaves the world devastated, the only way to prevent such an enormous loss is through preparing for response, recovery and rehabilitation before the disaster occurs (Mall et al. 2019). Along with the natural occurrences, the rising global temperature is expected to increase the frequency and severity of natural disasters, particularly the hydro-meteorological hazards that impacts a large population of the Asia–Pacific region (Mechler et al. 2014; IPCC 2021). Asia-Pacific is one of the world's most disaster affected region and is vulnerable to climate change (Thomas et al. 2014; Shaffril et al. 2020). Disasters such as Earthquakes, Tsunami, increasing intensity and frequency of cyclones with sea level rise continue to threaten the existence of small island developing states in the Asia-Pacific region (Shaffril et al. 2020). The Indian Ocean Tsunami 2004 is recorded as one of the worst Tsunami disasters resulting in thousands of deaths affecting millions of populations across different countries followed by the Great ters occur with same intensity over a region, the impact suffered by the people differ owing to their exposure, adaptive capacity and sensitivity that determine their vulnerability to the disaster. Amongst the worst sufferers of these impacts are the women and girls who are affected in a disproportionate manner (Valdes 2009).

Being the nurturer, women tend to put the need of others before themselves which eventually makes them more vulnerable to the severe impacts of climate change and disasters (Valdes 2009; Erman et al. 2021). The existing socio-cultural barriers impede women from voicing their

East Japan Earthquake and Tsunami of 2011 which struck

the northern part of Japan and killed around 19,500 people, leaving millions homeless (Satake 2014). Whilst the disas-

Being the nurturer, women tend to put the need of others before themselves which eventually makes them more vulnerable to the severe impacts of climate change and disasters (Valdes 2009; Erman et al. 2021). The existing socio-cultural barriers impede women from voicing their concerns, taking their own decisions, affecting their social, educational and financial independence as well as limit their opportunities of taking lead in society. Lack of women in decision making and leadership roles excludes their entire perspective, knowledge, experiences and more importantly gender-specific needs from disaster risk management initiatives (Ruszczyk et al. 2020; Zaidi and Fordham 2021). In such scenario, there is an urgent need to encourage and ensure women participation in disaster risk reduction planning and decision making at various levels of action, policy and governance.

With the aim of empowering women to take leadership roles in DRR initiatives, the UNITAR Women's Leadership in Tsunami-based Disaster Risk Reduction Training Programme for World Tsunami Awareness Day 2022, was held during 7th–11th March 2023 in Apia, Samoa (Fig. 1). The training programme was organised by the United Nations Institute for Training and Research (UNITAR) Hiroshima office with the support from the Ministry of Foreign Affairs, Govt. of Japan. The in-person training which marks the second phase of the DRR leadership programme resumed after 2 years of virtual training due to global pandemic with participants from the 2020, 2021 and 2022 cycle. A total of 18 participants from 9 countries of the Asia–Pacific region took part in the training, hailing from Fiji, India, Kiribati,

R. K. Mall rkmall@bhu.ac.in

Published online: 17 May 2023



Saumya Singh saumyasingh@bhu.ac.in

DST-Mahamana Centre of Excellence in Climate Change Research, Institute of Environment and Sustainable Development, Banaras Hindu University, Varanasi, India

Fig. 1 UNITAR women's leadership in tsunami-based disaster risk reduction training programme for World Tsunami Awareness Day 2022. The ambassador of Japan to Samoa, H. E. Keisuke Senta (Centre left) and Ms Frances Reupena (Centre right), CEO, Ministry of Natural Resources and Environment, Samoa with the 18 participants and UN officials (Photo: UNITAR)



Federated States of Micronesia, Papua New Guinea, Philippines, Samoa, Solomon Islands and Tonga (UNITAR 2023). It was also the first time the training was held outside Japan. The participants were selected based on their expertise that included academicians working in the field of Climate Change and DRR, DRR and resilience practitioners, healthcare, human aid professionals, tourism, business, policy and governance, etc., envisioning a multidisciplinary yet holistic approach towards DRR leadership. The programme comes under the mandate of promoting Leadership and Inclusion of UNITAR Division for Prosperity in which women are trained in practical skills and knowledge to lead genderinclusive and community-based disaster risk reduction initiatives to better prevent, prepare and recover from disasters. The motivation of the training programme stems from the Sendai Framework for Disaster Risk Reduction 2015–2030, a major agreement aimed to substantially reduce loss of life, livelihood and increase disaster risk resilience through developing local and national DRR frameworks including international cooperation (UNISDR 2015). The Sendai Framework promotes inclusion of women in DRR initiatives as an integral component for effective disaster preparedness and response. The training programme focusses on five of the seventeen Sustainable Development Goals, i.e. Quality Education (SDG 4), Gender Equality (SDG 5), Reduced Inequalities (SDG 10), Sustainable Cities and Communities (SDG 11), Peace, Justice and Strong Institutions (SDG 16) (UNITAR 2016).

The 5-day training programme was inaugurated by the prayer from Bishop Faafetai Tauiliili, The Church of Jesus Christ of Latter-day Saint, followed by the address from the guest speakers H. E. Mr. Keisuke Senta, the Ambassador Extraordinary and Plenipotentiary of Japan to Samoa and

Ms Frances Reupena, the Chief Executive Officer (CEO) of the Ministry of Natural Resources and Environment, Samoa. In her address, Ms. Reupana resonated her strong belief in womens' capability to lead with a Samoan proverb "E au le ina'ilau a tina ma tama'ita'I" which means women can achieve anything they set their heart to. H. E. Mr Senta emphasised on the importance of collective effort in building a resilient community of which women are an integral part of. Ms. Mihoko Kumamoto, Director—Division for Prosperity, UNITAR, reflected on the history of the UNITAR Hiroshima Women DRR leadership programme, its vision and consistent efforts to building a more gender-inclusive, empowered and resilient communities across the globe.

The objectives of the training programme were to equip the participants with leadership and management characteristics pertaining to disaster risk management; develop an understanding of risk associated with disasters, nature-based solutions, indigenous and traditional knowledge and their contribution to building resilience; challenges of vulnerability groups for inclusivity; and communication with media. The training sessions included lecture from the experts, group exercises and study visits to 2009 Tsunami affected areas of Upolu Island, organisations working with disaster management and response in Samoa such as National Emergency Operation Centre, Samoa Red Cross and United Nations office. These diverse activities were curated to impart the participants with both technical understanding of the disasters, disaster preparedness well as learn from multi-institutional and gender-inclusive disaster response.

"It is all in the planning" emphasising on the importance of planning, Ms. Fesola'I Molly Fa'amanatu Nielson, Assistant Chief Executive Officer, Disaster Management Office (DMO), spoke on the organisational structure of DMO,



collation of different institutions, and training local community for minimising damage and saving lives with limited resources when disaster occur. Tuiloma Dr. Susana Taua'a, Associate Professor, National University of Samoa reflected on pacific disaster experiences and emerging challenges in database management in the context of DRR research. Bridging the gap between past and future, Ms. Siosinamele Lui, lead Climate Traditional Knowledge, Climate and Oceans Support Program in the Pacific (COSPPac), spoke on the recent initiatives of documenting and integrating traditional knowledge on weather patterns, climate, wildlife behaviour, oceans and disaster risk and local resilience practises into community-based early warning systems. Women play an important part in communicating this traditional knowledge to the future generations through stories and local practises and so are the preserver of the rich reservoir of traditional knowledge. Tuifuisa'a Dr. Patila Amosa, Vice-Chancellor, National University of Samoa an expert of Climate Change and DRR delivered a lecture on the ecosystem-based DRR, emphasising on the need for conserving the ecosystems as they act as a buffer against climate change and disasters by absorbing their impacts and ensuring the livelihood of the communities.

Apart from the scientific lectures, sessions on women leadership and gender equality reflected on how the representation of women and all of the genders is crucial to DRR. Ms. Papali'i Mele Maualaivao, UN Women Country Programme Coordinator, Samoa, and Su'a Alex Su'a, the President of Samoa Faafafine Association, took a session on gender and DRR where they spoke on the challenges of gender equality and role of LGBTQ+community in DRR. Together, they emphasised on the need of inclusive DRR because when a woman is in a leadership position, she carries her whole community with her to the decision-making table, one without her tends to overlook the needs of not just women but other genders and people with disabilities as well. Whilst women empowerment initiatives have proved to be a positive nudge to increasing women representation in different spheres of life, the rights and representation of LGBTQ + community is barely noticeable. With a mission of 'leaving no one behind', the training programme educated the participants on how the differently abled people are at the most risk of being left behind when the disasters occur. The session on 'People with Disabilities' focussed on the challenge of making a DRR plan inclusive to the needs of differently abled people, which is far more complex than it appears on the table. Herbert bell, from Nuanua O. Le Alofa, NGO, an advocate for the rights of people with disabilities, shared his experience of DRR with the participants. He stated that the prerequisite of framing a DRR plan inclusive of people with disability is understanding their perspectives, needs and issues and adopt them to reduce their risk and vulnerability. Building a gender-inclusive, supportive and a resilient community requires a fundamental shift in social perception of gender-specific roles and prejudices, which is not possible until everyone decides to come together. In the words of Ms. Maualaivao "No one changes the world alone, No one does it alone" everyone is needed to bring a positive change in the society. Finally, the session on the role of media in communicating sensitive information on disasters was taken up to make the participants aware of the hazards of misinformation as well the responsibility of conveying the correct information for appropriate disaster response in the affected community.

The sessions were concluded with the final presentations by the participants summarising their experience and knowledge gained during the training on different aspects of women leadership and DRR. The closing ceremony of the training programme was marked with commemoration of the twelfth anniversary of the devastating Great East Japan Earthquake and Tsunami that stuck Japan on March 11, 2011 claiming thousands of lives. A documentary capturing the unfolding of the real events of the Great East Japan Earthquake and Tsunami was shown to the participants followed by an interaction with the people from Yappesu, Japan-based non-profit organisation to share their experience of the disaster and the story of resilience leaving no one behind (SangYum 2023). The participants observed a minute of silence at 2:46 PM when the earthquake occurred in Japan to honour the memories of the lives lost in the disaster. The participants were awarded with the certificate by H. E. Mr. Senta marking the completion of the UNITAR women's leadership DRR training programme 2022 with a hope of strengthening the voices of all genders in DRR leadership and building a resilient community. The entire programme was conducted by UNITAR DRR Prosperity team led by Ms. Mihoko Kumamoto, Director-Division of Prosperity, UNITAR, Ms. Junko Shimazu, Programme Officer and Team leader, Leadership and Inclusion, Hiroshima Office, Division of Prosperity, Dr. Richard Crichton, Training Associate, UNITAR, Dr. Ven Paolo Valenzuela, Training Assistant, Mr. Shota Koike, Programme Assistant, and Ms. Maria K. Sung Yum, Intern.

As the training concluded, all the participants came to share a common vision of working towards promoting and incorporating gender-inclusive DRR approach for disaster and climate change resilience in each of their countries. It was also realised that climate change adaptation and DRR go hand in hand and so a synergistic approach needs to be adopted to build a resilient future incorporating both advanced technologies as well as indigenous and traditional knowledge. Highlighting the need of encouraging the voices of girls and women in leadership roles and decision making, the training programme is set to mark a new dawn of emerging women leaders in Asia–Pacific region in the field of DRR and climate change. The participants committed to



taking back the lessons learnt from the trainings and building cross-country networks to support each other in women-led community-based initiatives for disaster risk management.

Acknowledgements The corresponding author is thankful to United Nations Institute of Training and Research and Ministry of Foreign Affairs Japan for the resources and financial support to attend the training programme. The authors are thankful to the Climate Change Programme, Department of Science and Technology, New Delhi, for resources (DST/CCP/ CoE/80/2017(G)) to support the research work of the authors.

**Author Contributions** SS has prepared the first draft of the article and RKM has edited and revised the article. All authors have read and approved the final article.

**Data Availability** Authors declare that all data and materials support their published claims and comply with field standards. Authors promote data transparency and agree to provide in case of request from the journal.

## **Declarations**

**Conflict of interest** The authors declare no conflict of interest.

## References

- CRED (2023) 2022 Disasters in numbers. Brussels, Belgium. https://cred.be/sites/default/files/2022\_EMDAT\_report.pdf. Accessed 10 Apr 2023
- Erman A, De Vries R, Sophie A, Thies SF, Kabir K, Maruo M (2021) Gender dimensions of disaster risk and resilience: existing evidence. World Bank, Washington, DC. http://hdl.handle.net/10986/35202. Accessed 10 Apr 2023
- Hung HC, Yang CY, Chien CY, Liu YC (2016) Building resilience: Mainstreaming community participation into integrated assessment of resilience to climatic hazards in metropolitan land use management. Land Use Policy 50:48–58. https://doi.org/10.1016/j.landusepol.2015.08.029
- IPCC (2021) Summary for policymakers. In: Masson-Delmotte V, Zhai P, Pirani A, Connors SL, Péan C, Berger S, Caud N, Chen Y, Goldfarb L, Gomis MI, Huang M, Leitzell K, Lonnoy E, Matthews JBR, Maycock TK, Waterfield T, Yelekçi O, Yu R, Zhou B (eds) Climate change 2021: the physical science basis. Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change. Cambridge University Press, Cambridge, pp 3–32. https://doi.org/10.1017/9781009157896.001
- Mall RK, Srivastava RK, Banerjee T, Mishra OP, Bhatt D, Sonkar G (2019) Disaster risk reduction including climate change adaptation over south Asia: challenges and ways forward. Int J Disaster Risk Sci 10:14–27. https://doi.org/10.1007/s13753-018-0210-9

- Mechler R, Bouwer L, Linnerooth-Bayer J, Hochrainer-Stigler S, Aerts JCJH, Surminski S, Williges K (2014) Managing unnatural disaster risk from climate extremes. Nat Clim Chang 4:235–237. https://doi.org/10.1038/nclimate2137
- Nohrstedt D, Hileman J, Mazzoleni M, Di Baldassarre G, Parker CF (2022) Exploring disaster impacts on adaptation actions in 549 cities worldwide. Nat Commun 13:3360. https://doi.org/10.1038/s41467-022-31059-z
- Ruszczyk HA, Upadhyay BK, Kwong YMC, Khanal O, Bracken LJ, Pandit S, Bastola R (2020) Empowering women through participatory action research in community-based disaster risk reduction efforts. Int J Disaster Risk Reduct 51:101763. https://doi.org/10. 1016/j.ijdrr.2020.101763
- Sang Yum KM (2023) Great East-Japan earthquake, tsunami remembered. Samoa Observer. https://www.samoaobserver.ws/category/ columns/102568. Accessed 10 Apr 2023
- Satake K (2014) Advances in earthquake and tsunami sciences and disaster risk reduction since the 2004 Indian ocean tsunami. Geosci Lett 1:15. https://doi.org/10.1186/s40562-014-0015-7
- Shaffril HAM, Ahmad N, Samsuddin SF, Samah AA, Hamdan ME (2020) Systematic literature review on adaptation towards climate change impacts among indigenous people in the Asia Pacific regions. J Clean Prod 258:120595. https://doi.org/10.1016/j.jclep ro.2020.120595
- Sudmeier-Rieux K, Arce-Mojica T, Boehmer HJ, Doswald N, Emerton L, Friess DA, Galvin S, Hagenlocher M, James H, Laban P, Lacambra C, Lange W, McAdoo BG, Moos C, Mysiak J, Narvaez L, Nehren U, Peduzzi P, Renaud FG, Sandholz S, Schreyers L, Sebesvari Z, Tom T, Triyanti A, Eijk PV, Staveren MV, Vicarelli M, Walz Y (2021) Scientific evidence for ecosystem-based disaster risk reduction. Nat Sustain 4:803–810. https://doi.org/10.1038/s41893-021-00732-4
- Thomas V, Albert JRG, Hepburn C (2014) Contributors to the frequency of intense climate disasters in Asia-Pacific countries. Clim Change 126:381–398. https://doi.org/10.1007/s10584-014-1232-y
- UNISDR (2015) Sendai framework for disaster risk reduction 2015–2030. Geneva: United Nations. https://www.preventionweb.net/files/43291\_sendaiframeworkfordrren.pdf. Accessed 11 Apr 2023
- UNITAR (2016) UNITAR Hiroshima Women's leadership in tsunamibased disaster risk reduction training programme for World Tsunami Awareness Day. https://www.unitar.org/about/news-stori es/stories/prosperity-womens-leadership-tsunami-based-disas ter-risk-reduction. Accessed 10 Apr 2023
- UNITAR (2023) Women Leaders' Training in Disaster Risk Reduction to be held in Samoa. https://unitar.org/about/news-stories/news/women-leaders-training-disaster-risk-reduction-be-held-samoa. Accessed 11 Apr 2023
- Valdes HM (2009) A gender perspective on disaster risk reduction. In: Enarson E, Dhar Chakraborty PG (eds) Women, gender and disaster: global issues and initiatives, vol 18. SAGE, New Delhi
- Zaidi RZ, Fordham M (2021) The missing half of the Sendai framework: gender and women in the implementation of global disaster risk reduction policy. Prog Disast Sci 10:100170. https://doi.org/10.1016/j.pdisas.2021.100170

