



Gender and disaster risk reduction

Women bring unique experiences and valuable skills that would benefit disaster risk mitigation and preparedness. By recognizing and promoting the unique capacities of women, one can simultaneously further community resilience and advance gender equality.

Background

The recent upsurge in the intensity and recurrence of hydro-meteorological disasters underscores the need for an increased understanding of the nexuses among disasters, climate change and the human impacts of these often intertwined phenomena. Climate change will affect disaster risks in two ways: by increasing the frequency and severity of weather and climate hazards and by increasing communities’ overall vulnerability to these hazards (through factors such as ecosystem degradation, reductions in water and food availability and changes to livelihoods).

Disasters tend to hit the poorest and most marginalized demographics the hardest. Women and girls are particularly exposed to climate-related disaster risk—they are likely to suffer higher rates of mortality, morbidity and economic damage to their livelihoods. Women bring unique experiences and skills to disaster risk reduction and management, although these skills are often not acknowledged or tapped into sufficiently. Increased awareness of the drivers, pressures, stressors and opportunities associated with climate-related disasters is key to finding smart pathways to reduce and manage disasters. It is therefore

imperative that disaster risk reduction and management strategies are gender-aware, taking into account both gender-based vulnerabilities as well as women's unique contributions.¹

Disasters pose huge developmental challenges

On average, disasters killed more than 70,000 people and affected more than 200 million people per year during the last decade in the Asia-Pacific region.² Climate-related disasters (e.g. storms, heavy rainfalls, floods, droughts, landslides, water stress and heatwaves), unplanned urban development, vulnerable livelihoods and ecosystem degradation could overturn years of progress made towards achieving sustainable development objectives and the Millennium Development Goals.³ Almost 90 percent of deaths in disasters occur in hydro-meteorological events.⁴

There is a mutually reinforcing relationship between climate change and disasters. Climate change increases the intensity and frequency of extreme weather and climate events such as tropical cyclones, floods and heatwaves.⁵ Further, the adverse impacts of climate change on livelihoods and ecosystems diminish communities' adaptive capacities and increase their vulnerability to disasters.⁶

Gender-based vulnerability and exposure to disaster risk is clearly established

Although all countries grapple with real and/or potential extreme hazards (e.g. earthquakes, tropical cyclones, floods), some are more vulnerable than others. The Asia-Pacific region, for example, accounted for 90 percent of countries affected by disasters, 65 percent of disaster related deaths and 38 percent of economic damage⁷—and climate change will likely intensify existing risk patterns in the region.⁸ While disasters pose threats to lives and livelihoods of everyone in their path, they tend to have disparate impacts on particular demographics. This is

The differential gender impacts of hazards

Following the 1991 cyclone and flood in Bangladesh, women's death rate was almost five times higher than men's. Warning information was transmitted by men to men in public spaces, but was rarely communicated to the rest of the family. As many women are not allowed to leave the house without a male relative, they perished waiting for their relatives to return home and take them to a safe place.

Moreover, as in many other Asian countries, most Bengali women have never learned to swim, which significantly reduced their survival chances during the flood.

Source: Röhr, U., 2006 'Gender and Climate Change', *Tiempo*, Issue 59. Available at <http://www.tiempocyberclimate.org/portal/archive/pdf/tiempo59high.pdf>.

due to the fact that disaster risk is a function of ‘adaptive capacity’—the ability of communities and people to cope with the hazard at hand.⁹ In other words, the poor are likely to live under circumstances that make them less likely to survive and recover from a disaster event.¹⁰ Studies have shown that disaster fatality rates are much higher for women than for men due, in large part, to gendered differences in capacity to cope with such events and insufficient access to information and early warnings.¹¹ For example, women accounted for 61 percent of fatalities caused by Cyclone Nargis in Myanmar in 2008, 70–80 percent in the 2004 Indian Ocean tsunami, and 91 percent in the 1991 cyclone in Bangladesh.¹²

Climate change and disasters: Fast Facts

- ↗ *Women and children are 14 times more likely than men to die during a disaster.*
- ↗ *There is a direct relationship between women's risk of being killed during disasters and their socio-economic status (defined as access to information, economic resources and ability to exercise personal freedom of choice).*
- ↗ *In the 2004 Asian tsunami, women in many villages in Aceh, Indonesia, and in parts of India accounted for over 70 percent of the dead.*
- ↗ *More women than men died during the 2003 European heatwave. In France, most deaths were among elderly women.*
- ↗ *During Hurricane Katrina, most of the people trapped in New Orleans were African-American women and children, the poorest demographic group in the US.*
- ↗ *Extreme weather events often create conditions conducive to outbreaks of infectious diseases (e.g. heavy rains can produce insect breeding grounds and contaminate clean water sources; drought can cause fungal spores and spark fires).*
- ↗ *In refugee camps, women and girls are exposed to higher risks than men, including through conflict over scarce resources. Compounding this, social strains in such situations aggravate stress levels in the family, which may result in increased incidences of domestic violence.*
- ↗ *In some situations, men are disproportionately vulnerable: there were more immediate deaths among men when hurricane Mitch struck Central America, not only because they were engaged in open-air activities, but because they took fewer precautions when facing risks.*

Sources: Gault, B., H. Hartmann, A. Jones-DeWeever, M. Werschkul and E. Williams, 'The Women of New Orleans and the Gulf Coast: Multiple Disadvantages and Key Assets for Recovery. Part I. Poverty, Race, Gender, and class', Institute for Women's Policy, Research Briefing Paper, 2005; Neumayer, E., and T. Plumper, 'The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981-2002', *Annals of the Association of American Geographers*, issue 97, 1997; see also International Union for Conservation of Nature, available at: http://cmsdata.iucn.org/downloads/disaster_and_ender_statistics.pdf; Oxfam, 'The Tsunami's Impact on Women', Briefing Note, March 2005; Peterson, K., 'Reaching Out to Women when Disaster Strikes', White Paper, Soroptimist, 2007; Pirard, P., S. Vandentoren, M. Pascal, K. Laaidi, A. Le Tertre, S. Cassadou and M. Ledrans, 'Summary of the Mortality Impact Assessment of the 2003 Heat Wave in France', *Eurosurveillance* 10 (7), 2005; United Nations Economic and Social Commission for Asia and the Pacific, *Statistical Yearbook for Asia and the Pacific*, Thailand, 2011.

This gendered asymmetry in vulnerability to disaster risk is rooted primarily in geographic, economic, social, educational/informational and political power imbalances across all levels: women tend to live and work closely with the natural resources and geographical features that are most effected by disasters and shocks; socio-cultural norms may cause restrictions in movement to escape disasters (particularly water-related hazards); they have lower levels of access to economic resources in general, and in particular, lower levels of education and information to access, read and act upon disaster warnings.¹³

The greatest effects of disasters on livelihoods tend to be in agriculture, because that makes up the largest proportion of many developing country economies. Houses and productive assets, including agricultural land, livestock, and rural enterprises, can all be affected. Since women are still largely marginalized in these sectors due to factors such as lack of literacy, land ownership and access to resources, they tend to face the greatest obstacles in recovery.¹⁴

Disaster risk management benefits from women's unique contributions

Gender-based vulnerability and exposure to disaster risk—a painful reality—should not eclipse women's immense contributions in all phases of the disaster risk management cycle. Studies consistently show that gender equality and women's empowerment are vital for environmental sustainability as well as necessary elements of investments towards achieving the Millennium Development Goals and successfully adapting to climate change impacts.¹⁵ Women bring unique experiences and valuable skills that would benefit disaster risk mitigation and preparedness.¹⁶ By recognizing and promoting the unique capacities of women, one can simultaneously further community resilience and advance gender equality.¹⁷ For example, after the 1993 earthquake in Latur, India, a network of women's self-help groups was created in order to address risk reduction and practical needs, such as credit, livelihoods, water and sanitation, and health and education. This network included 3,500 women's groups in over 1,064 villages. Through this initiative, women have acquired knowledge of earthquake-safe building, 'dos and don'ts' of relief, recovery and rehabilitation, information on assets and properties, and knowledge of access to emergency credit.¹⁸

Recommendations

➤ **Disaster risk reduction and management efforts need to be gender-aware. Mainstreaming gender in disaster risk reduction and management would add value to such initiatives.** Incorporating gender perspectives into disaster risk reduction and management policy and projects will increase disaster management efforts equitability, effectiveness and sustainability.

➤ **Despite gender-based vulnerabilities, especially in disaster-prone regions such as Asia and the Pacific, women are also key agents of positive change in disaster risk reduction and management efforts.** Both factors need to be properly considered when developing disaster risk reduction and management policy and actions across scales.

➤ **All climate efforts, including financing initiatives that target climate-related disasters, should leverage gender equality and women's empowerment.**

Investing in women is an effective means for advancing sustainable development and fighting climate change. The needs, interests and contributions of all members of the society, especially women and other vulnerable groups, should therefore be taken into account in the design and operationalization of financing of disaster risk reduction and management.¹⁹

➤ **The climate effort across scales and sectors is an opportunity to improve the well-being of humans and ecosystems.**

Disaster risk management at the programmatic and planning levels should aim to boost women's participation and empowerment. Vigorous, pro-poor and gender-sensitive planning and implementation is a winning pathway for nurturing sustainable and resilient livelihoods.

Mainstreaming gender in disaster risk reduction

- *Include gender perspectives in disaster reduction efforts at the national, regional and international levels—including in policies, strategies, action plans, and programmes;*
- *Analyse climate change data (e.g. desertification, floods, drought, deforestation) with a gender-sensitive perspective and collect sex-disaggregated data;*
- *Take gender-aware steps to reduce the negative impacts of disasters on women, particularly in relation to their critical roles in rural areas in provision of water, food and energy (i.e. provide support, health services, information and technology);*
- *Increase women's participation and representation in all levels of decision-making processes;*
- *Include women's traditional knowledge and perceptions in the analysis and evaluation of disaster risks, coping strategies and solutions;*
- *Ensure that women are being visibly engaged as agents of change at all levels of disaster preparedness, including early warning systems, education, communication, information and networking opportunities;*
- *Build national and local women's groups' capacities and provide them with a platform to be heard and to lead;*
- *Consider the level of a woman's access to technology and finances, health care, support services, shelter and security in times of disaster; and*
- *Include gender-specific indicators to monitor and track progress on gender equality targets.*

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REFERENCES: 1. United Nations International Strategy for Disaster Reduction (UNISDR), 'Climate Change and Disaster Risk Reduction', Briefing Note 1, September 2008. 2. United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), *Statistical Yearbook for Asia and the Pacific*, Thailand, 2011. 3. UNISDR, 'Adaptation to Climate Change by Reducing Disaster Risks: Country Practices and Lessons', Briefing Note 02, November 2009. 4. Carvajal-Escobar, Y., M. Quintero-Angel and M. García-Vargas, 'Women's Role in Adapting to Climate Change and Variability', *Advances in Geo Sciences*, issue 14, 277–280, 2008. 5. Parry, M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds.), *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Intergovernmental Panel for Climate Change, Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA, 2007. 6. UNISDR, 'Strengthening Climate Change Adaptation Through Effective Disaster Risk Reduction', Briefing Note 3, 2011; UNISDR 2009, note 3. 7. Climate Action Network Australia, 'Climate Change Impacts Globally', 2010, available at: <http://cana.net.au/general-info/climate-change-impacts-globally>; UNESCAP 2011, note 1. 8. Parry et al. 2007, note 5. 9. Ibid.; Women's Environment and Development Organization, 'Changing the Climate: Why Women's Perspectives Matter', 2007. 10. Parry et al. 2007, note 5. 11. Ikeda, K., 'Gender Differences in Human Loss and Vulnerability in Natural Disasters: A Case Study from Bangladesh', *Indian Journal of Gender Studies*, 2:2: 171–93, 1995; Neumayer, E., and T. Plumper, 'The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002', *Annals of the Association of American Geographers*, issue 97, 1997; Oxfam, 'The Tsunami's Impact on Women', Briefing Note, March 2005. 12. Castañeda, I., and S. Gammage, 'Gender, Global Crises, and Climate Change', in Jain, D., and D. Elson (eds.), *Harvesting Feminist Knowledge for Public Policy*, SAGE Publications India, New Delhi, India, 2011. 13. Aguilar, L. et al, 'Training Manual on Gender and Climate Change', published by the International Union for Conservation of Nature (IUCN), United Nations Development Programme (UNDP) and Global Gender and Climate Alliance (GGCA), San Jose, Costa Rica, 2009. 14. UNESCAP and UNISDR, *Protecting Development Gains: Reducing Disaster Vulnerability and Building Resilience in Asia and the Pacific*, Bangkok, 2010. 15. Dankelman, I., *Gender and Climate Change: An Introduction*, Earthscan, London, 2010; Food and Agriculture Organization of the United Nations, *The State of Food and Agriculture*, 2011; United Nations Development Programme (UNDP), *Human Development Report 2011: Sustainability and Equity: A Better Future for All*, 2011; *World Bank, World Development Report 2012 – Gender Equality and Development*, 2011. 16. Anderson C., 'Gender Matters: Implications for Climate Variability and Climate Change and for Disaster Management in the Pacific Islands', *InterCoast Newsletter*, 2012; Carvajal-Escobar et al. 2008, note 4. 17. World Resources Institute, United Nations Environment Programme, UNDP and World Bank, *World Resources 2010–2011: Decision Making in a Changing Climate—Adaptation Challenges and Choices*, Washington, DC, 2011. 18. UNISDR, 'Gender Perspective: Working Together for Disaster Risk Reduction – Good Practices and Lessons Learned', 2007. 19. Alboher, S., 'Clean Development Mechanism: Exploring the Gender Dimensions of Climate Finance Mechanisms', UNDP, November 2010; Alboher, S., and E. Vogt, 'Climate Investment Fund: Exploring the Gender Dimensions of Climate Finance Mechanisms', UNDP, November 2010; UNDP, 'Ensuring Gender Equity in Climate Change Financing', 2011.



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