

4

Vulnerability and inclusion

Poor living conditions, inadequate infrastructure, a lack of income diversification and limited access to basic services, especially education and information, ensure that the poorest and most marginalised people are disproportionately affected by disasters. The equal participation of all groups in DRR decisions and a commitment to address the root causes of disasters will help to address their underlying vulnerability, increase capacities to cope with the effects of natural hazards and facilitate empowerment. HFA2 must recognise and build upon the strengths of such vulnerable groups.³⁶

Lead authors: Emma Lovell and Virginie le Masson

Marginalised groups are more likely to suffer the effects of disasters



POVERTY

The poorest suffer disproportionately from disasters



NEPAL 1993
GDP PER CAPITA \$608
The homes of poor people were more than

5 times

as likely to wash away as the homes of the rich; those whose homes were swept away were 57 times more likely to die.⁴⁴



THE PHILIPPINES, LUZON TYPHOON 2004
The majority of the **1,000 people**

who died in landslides and floods were formerly lowlands farmers, who had migrated to high-risk land to secure livelihoods.⁴⁵



GENDER

Disasters usually mean higher mortality for women than for men



% of population killed that were women

59%

BANGLADESH CYCLONE 1991⁴⁶

55%

INDIA EARTHQUAKE 1993⁴⁷

57%

JAPAN EARTHQUAKE 1995⁴⁸

77%

NORTH ACEH, INDONESIA TSUNAMI 2004⁴⁹

61%

MYANMAR CYCLONE NARGIS 2008⁵⁰

Millions live in poverty and with disaster risk

Up to **325m**

extremely poor people will be living in the 49 most hazard-prone countries in 2030, the majority in South Asia and sub-Saharan Africa.³⁷



Some of the countries with the highest hazard risks also have the largest numbers of people living below the

\$1.25 -a-day threshold.³⁸

Developing countries compared to rich ones:

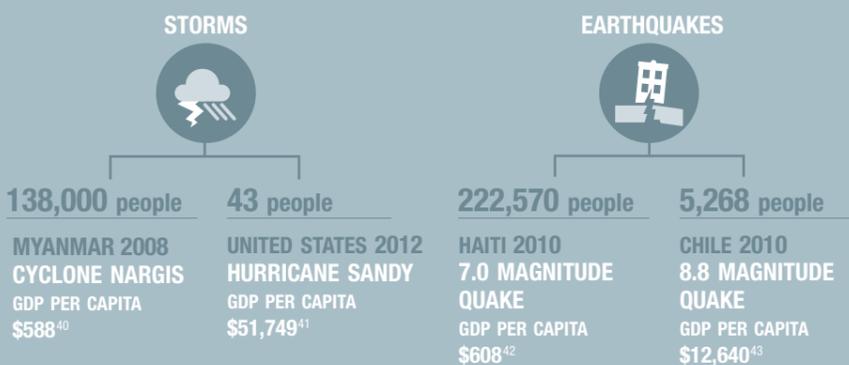
4 times

the population.

150 times

more likely to be affected by disaster.³⁹

Disaster-related mortality is worse in poor countries



Inequality exacerbates vulnerability, affecting capacity to cope with disaster

- **Food security:** It is estimated that women and girls make up 60% of the chronically hungry globally.⁵¹
- **Livelihoods:** In South Asia and sub-Saharan Africa, more than 80% of women work in informal employment.⁵²
- **Burden of workload:** Women in sub-Saharan Africa spend 3–5 times longer than men on domestic activities such as cooking, collecting water and fuel, cleaning and caring for children and the elderly.⁵³
- **Wage inequality:** In the majority of countries, women earn 70–90% of men's wages, with even lower ratios observed in Latin America.⁵⁴

Pregnant women and those with young children account for a high proportion of affected populations



- **PAKISTAN, EARTHQUAKE, 2005:** The estimated number of pregnant women in the affected areas was 40,000.⁵⁶
- **SOUTHEAST ASIA, TYPHOON HAIYAN, 2013:** Around 14.1 million people were affected; more than 250,000 were pregnant women and nearly 170,000 were lactating women.⁵⁷



AGE

Children are at high risk of hunger and malnutrition, which is often exacerbated during disasters, particularly drought

20%

It is estimated that 20% of chronically hungry people are children under five years old.⁵⁸

SAHEL IN 2014 AN ESTIMATED



Children, young people and the elderly make up large numbers and proportions of those affected

FLOOD FATALITIES, NEPAL 2013:
Pre-school girls were five times more likely to die than adult men.⁶⁰

NUMBERS OF CHILDREN AFFECTED



GREAT EAST JAPAN EARTHQUAKE 2011

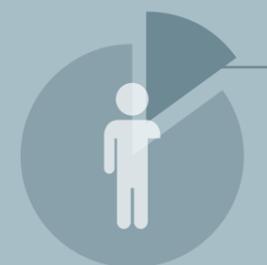


SRI LANKA POST-TSUNAMI, 2004

Mortality among children living in evacuation camps was 3–4 times greater than among young adults; mortality for children under five was double that for adults over 50; and mortality for females of all ages was double that for males.⁶⁴



DISABILITY



An estimated **15%** of the world's population (600 million people) live with some form of disability.⁶⁶

GREAT EAST JAPAN EARTHQUAKE, 2011

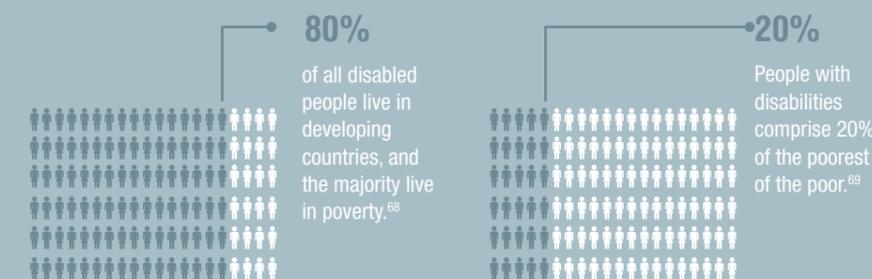
The death rate amongst the total population of the coastal area of Miyagi prefecture was 0.8%, while amongst registered disabled persons it was 3.5%.⁶⁵

HURRICANE KATRINA, 2004

21.3–27.1%

of the affected population had a disability.⁶⁷

DISABILITY INTERSECTS WITH POVERTY



Disasters exacerbate vulnerabilities and social inequalities



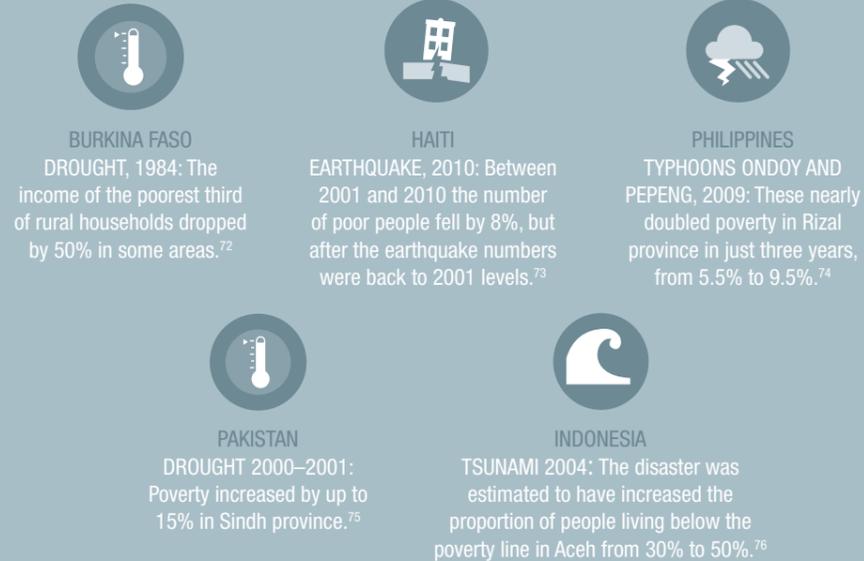
POVERTY

The poorest countries suffer the most

20x

Economic losses due to 'natural' disasters can be 20 times greater (as a percentage of GDP) in developing countries than in developed countries.⁷⁰

Disasters trap people in poverty⁷¹



Development is set back by disasters

DURING THE 1991–1992 DROUGHT in Africa, Zimbabwe's GDP declined by⁷⁷

9.5%

20 years

HURRICANE MITCH (1998) set back development by 20 years across the Central American countries it affected.⁷⁸



GENDER

The economic divide can widen

WOMEN'S AVERAGE INCOMES increased by 3.7% from 2005 to 2007, after Hurricane Katrina hit New Orleans in 2005, while men's incomes increased by 19%.⁷⁹

THE RATIO of women's earnings to men's in New Orleans declined from 81.6% prior to the hurricane to 61.8% in 2006.⁸⁰



Levels of gender-based violence (GBV) can increase



HAITI
EARTHQUAKE, 2010: At least 242 cases of rape against women were recorded in relief camps in the first 150 days following the earthquake.⁸¹



MIAMI, UNITED STATES
HURRICANE ANDREW, 1992
Spousal abuse calls to the local community helpline increased by 50%.⁸²

NEW ORLEANS, UNITED STATES
HURRICANE KATRINA, 2005: The rape rate amongst women displaced to trailer parks was 53.6 times higher than the highest baseline rate for Mississippi in 2004; the incidence of partner rape was 16 times higher than the US yearly rate.⁸³

There are differentiated health impacts



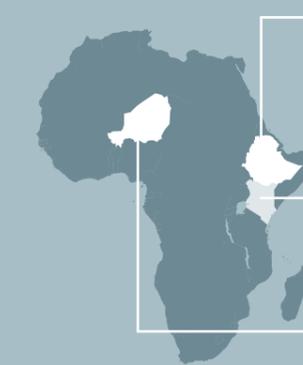
Following **NEW ORLEANS, UNITED STATES**
HURRICANE KATRINA, 2005: Women living in New Orleans were found to be 2.7 times more likely than men to have post-traumatic stress disorder (PTSD).⁸⁴

AHMEDABAD, INDIA
HEATWAVE, 2010: Of the excess deaths recorded, 881 were women and 287 were men.⁸⁵



AGE

Drought seriously affects children's growth and nourishment⁸⁷



ETHIOPIA: Children aged five or younger are 36% more likely to be malnourished and 41% more likely to be stunted.

KENYA: The likelihood of children being malnourished increases by 50%.

NIGER: Children aged two or under are 72% more likely to be stunted.

Children who are separated from their parents after a disaster are more prone to illness, malnutrition and abuse, and may suffer life-threatening consequences due to deprivation.⁸⁶

Disasters prevent children from going to school, affecting their education and exacerbating their vulnerability



CHINA, SICHUAN EARTHQUAKE, 2008
7,000 classrooms were destroyed.⁸⁹

MYANMAR, CYCLONE NARGIS, 2008
More than 4,000 schools (over 50% of the total) in affected areas were destroyed or badly damaged, with many more losing learning materials, latrines and furniture.⁹⁰

HAITI, EARTHQUAKE, 2010
4,992 schools (23% of the total) were affected. Of these, 3,978 (80%) were damaged or destroyed, and were closed after the quake.⁹¹

THE 2005–2006 DROUGHT IN THE HORN OF AFRICA

increased child wasting by up to 8%, and by up to 25% in pastoralist communities.⁸⁸



DISABILITY

Disasters disable

200,000
HAITI EARTHQUAKE, 2010
Approximately 200,000 people are expected to live with long-term disabilities as a result of their injuries.⁹²

20%
INDIAN OCEAN TSUNAMI, 2004
There was an estimated 20% increase in the number of persons with disabilities in affected areas.⁹³

Lack of adequate support, information and protection limits post-disaster services and resources for people with disabilities



ORISSA, INDIA, 1990, SUPER-CYCLONE
MORE THAN **80%**

of disabled persons faced food shortages post-disaster, due to a lack of clear information on the location of relief supplies and how to access them.⁹⁴



BANGLADESH, CYCLONES
55%

of people with disabilities (in particular women and girls) avoided shelters because of a lack of accessibility and safety. This increased their exposure to disasters as their homes did not always provide them with adequate protection.⁹⁵



BANGLADESH, FLOODING
AT LEAST **96%**

of people with disabilities interviewed reported facing difficulties in accessing safe drinking water and particularly latrines during floods.⁹⁶

Vulnerable groups tend to be excluded from DRR decision-making, thus making them even more vulnerable to the impacts of disaster

Gender equality in DRR does not receive adequate attention

IN THE HFA, progress reports demonstrate that the two gender equality indicators are the lowest-performing.⁹⁷



ONLY **6 of 62**

Government statements to the 2013 Global Platform for DRR explicitly mentioned the need to further integrate women, as well as children, into DRR (Canada, Finland, the Republic of Korea, Nigeria, Norway and Sweden).⁹⁸

Marginalised groups are not systematically involved in DRR decision-making



WOMEN report that they are excluded from emergency preparedness and response programmes.¹⁰²



ENGAGING CHILDREN directly in the design and delivery of DRR activities is not yet understood or mainstreamed within DRR policy and practice.¹⁰³

IN POST-TSUNAMI RECONSTRUCTION

in 2004, the exclusion of people with disabilities from disaster management processes in affected areas led to their further exclusion, resulting in slow, ineffective or non-existent relief.¹⁰⁴

Disaster planning does not systematically address the different needs of those disproportionately affected



CHILDREN REMAIN AT THE MARGINS
The heightened vulnerability of children is not planned for in emergencies; the HFA does not specifically refer to child protection before, during or after emergencies.⁹⁹

DISABLED PEOPLE ARE FORGOTTEN

People living with disabilities report that they are rarely consulted about their needs. Evacuation in the event of a sudden disaster is a prime example:

60%

of disabled persons in Bangladesh are overlooked during disaster situations.¹⁰⁰



74% those who could evacuate with a considerable degree of difficulty

20% those who could evacuate immediately without difficulty

6% those who would not be able to evacuate at all¹⁰¹

DRR monitoring and evaluation processes lack information based on data disaggregated by sex, age and disability



2009–2011



2013

REPORTING SHOWS LITTLE IMPROVEMENT

In 2009–2011, eight out of 70 countries reported collecting gender-disaggregated vulnerability and capacity information; in 2013, the figure was 11 out of 40 countries.¹⁰⁵



FOLLOWING THE 2004 INDIAN OCEAN TSUNAMI, a lack of statistical data on people with disabilities prevented an accurate assessment of the numbers affected. People with disabilities also tended to be treated as a group, rather than taking into account the myriad barriers faced by individuals or sub-groups of individuals, which undermined the responsiveness of services.¹⁰⁶

Vulnerable groups should be included in DRR as active agents of change if resilience is to be effective and equitable

Vulnerable groups have capacities that DRR planners should recognise, build upon and strengthen



YOUNG PEOPLE ACT AS KEY INFORMANTS, challenging notions of fatalism and educating their households.¹⁰⁷ In El Salvador and the Philippines, children were found to be effective voices within campaigns, particularly when leveraged through the media.¹⁰⁸

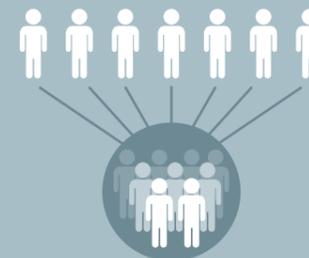


OLDER PEOPLE CONTRIBUTE to household security through accumulated knowledge of disasters, traditional knowledge of natural resources and provision of child-care. In Darfur, 29% of 4,000 older people surveyed looked after orphans – most caring for two or more children.¹⁰⁹



PEOPLE WITH DISABILITIES ARE BEST PLACED TO ASSESS their own needs and to plan how to meet them during and after emergencies. Their skills and experience to negotiate with altered and difficult physical and environmental limitations are crucial, and should be utilised by others engaged in DRR and response.¹¹⁰

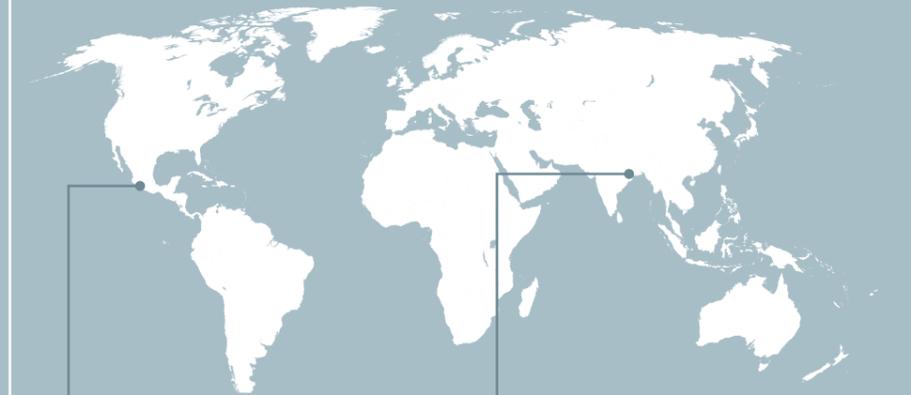
Local, traditional and indigenous knowledge helps save lives



Only seven people out of a population of 78,000

of the Indonesian island of Simeulue were killed by the Indian Ocean tsunami in 2004, despite the island's location only 40km from the epicentre of the earthquake. The story of a previous devastating tsunami in 1907 had been passed down through generations, helping islanders to recognise warning signs and to know what to do to survive.¹¹¹

Gender-sensitive DRR enhances community capacity and resilience and tackles gender-based inequalities



MEXICO

Following Hurricane Isidore (2002) in Mexico, Community-based organisations in more than 500 villages, developed gender-sensitive risk analysis, emergency plans, damage evaluations and reconstruction proposals. Data was differentiated, gender conditions analysed, and gender issues addressed (including violence and illiteracy). Women now get better information about prevention, preparedness and response, and reconstruction, and have increased decision-making power through occupying positions in local risk management structures.¹¹²



NEPAL

A flood awareness and preparedness project in Samadhan, Nepal consulted with women and men, promoted girls' leadership and designed training so that women could be more involved. According to UNISDR, 'The project set up family friendly scheduling, childcare, and female role models. When floods occurred, the communities showed a new collective strength that saved lives and assets.'¹¹³

Child-centred initiatives can strengthen adaptive capacity and empower children as agents of change¹¹⁴



GAMES IN MOZAMBIQUE

A child-focused programme called the 'River Game' enabled children to navigate their way down the Zambezi River, looking for hazards and assessing how they would deal with them. They then went home and taught their families what they had learnt. Following floods in early 2008, communities along the Zambezi demonstrated better risk-avoiding behaviour.¹¹⁵



THEATRE IN THE PHILIPPINES

Street theatre written and performed by children has been used to communicate the importance of DRR and the right to protection. Stories have acted as a form of recovery and stress release for many children who have suffered from disaster, and have also been shared with the wider community through discussion groups, press conferences and the media.¹¹⁶

Disability-inclusive DRR helps make action more equitable and more responsive to the needs of people with disabilities



LEARNING FROM OTHER RISKS

The Associated Blind Organisation, based on the ninth floor of the World Trade Center in New York, developed an evacuation plan and drill for all staff, including those who were visually impaired or blind. This helped to save their lives during the 2001 attack.¹¹⁷

VILLAGE RISK MANAGEMENT IN VIETNAM

Disability-inclusive plans have been implemented in 50 villages, involving tailored early warning and priority evacuation assistance. Activities and trainings have been adjusted to the needs of people with disabilities and care-givers, and this has improved the communities' understanding of their capacities and limitations.¹¹⁸

SUMMARY OF RECOMMENDATIONS

The lack of attention to social and cultural dimensions, including gender, age, disability and other factors of social marginalisation, undermines the effectiveness and sustainability of DRR. There has not been enough progress in the integration of gender perspectives, cultural diversity or community participation as cross-cutting issues in DRR. HFA2 needs to 'incorporate activities and outcomes that are based on context-specific analysis of the different needs, vulnerabilities, expectations and existing capacities of all population groups'.¹¹⁹ The contribution and participation of these groups remain 'largely isolated from government, private sector and multi-stakeholder decision-making' in DRR,¹²⁰ making it essential that these aspects are considered in the successor to the HFA.

- DRR practices must promote and monitor activities and outcomes that are based on context-specific analysis of the differential needs, vulnerabilities, expectations and existing capacities of all groups.
- HFA2 must advocate for DRR practices that reduce people's vulnerability to shocks and stresses, by promoting human rights, fostering community participation, valuing local and indigenous knowledge and ensuring equitable access to assets

and resources.

- DRR practices should also acknowledge and strengthen people's capacities, draw upon their self-identified and prioritised needs and empower socially marginalised groups to participate as active agents of change to prepare for and respond to disasters.
- HFA2 must promote gender equality as well as social and cultural diversity as fundamental goals to be achieved in their own rights and as key aspects of resilience to disasters.
- Governments must create an enabling environment for socially marginalised people and grassroots organisations to engage in and/or lead decision-making processes and DRR programme design.
- The HFA2 monitoring process must incorporate a social vulnerability dimension in the design of the new set of indicators. Data collection, assessments and analysis should be disaggregated according not only to gender but also to other aspects of social vulnerability, where appropriate, including age, disability, ethnicity and socio-economic status.

How vulnerability and empowerment are featured in the HFA

Para 13 (d): 'A gender perspective should be integrated into all DRM policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training.'

Para 13 (e): 'Cultural diversity, age, and vulnerable groups should be taken into account when planning for disaster risk reduction, as appropriate.'

Para 13 (f): 'Both communities and local authorities should be empowered to manage and reduce disaster risk by having access to the necessary information, resources and authority to implement actions for disaster risk reduction.'

Para 16 (iii) (h): 'Promote community participation in DRR through the adoption of specific policies, the promotion of networking, the strategic management of volunteer resources, the attribution of roles and responsibilities, and the delegation and provision of the necessary authority and resources.'

Para 17 (ii) (d): 'Develop early warning systems that are people-centered, in particular systems whose warnings are timely and understandable to those at risk, which take into account the demographic, gender, cultural and livelihood characteristics of the target audiences, including guidance on how to act upon warnings.'

Para 18 (i) (a): 'Provide easily understandable information on disaster risks and protection options, especially to citizens in high-risk areas, to encourage and enable people to take action to reduce risks and build resilience. The information should incorporate relevant traditional and indigenous knowledge and culture heritage and be tailored to different target audiences, taking into account cultural and social factors.'

Para 18 (ii) (h): 'Promote the inclusion of disaster risk reduction knowledge in relevant sections of school curricula at all levels and the use of other formal and informal channels to reach youth and children with information.'

Para 18 (ii) (m): 'Ensure equal access to appropriate training and educational opportunities for women and vulnerable constituencies; promote gender and cultural sensitivity training as integral components of education and training for disaster risk reduction.'

Para 18 (iv) (p): 'Promote the engagement of the media in order to stimulate a culture of disaster resilience and strong community involvement in sustained public education campaigns and public consultations at all levels of society.'

Social and economic development practices – Para 19 (ii) (g): 'Strengthen the implementation of social safety-net mechanisms to assist the poor, the elderly and the disabled, and other populations affected by disasters. Enhance recovery schemes including psycho-social training programmes in order to mitigate the psychological damage of vulnerable populations, particularly children, in the aftermath of disasters.'

Para 19 (ii) (i): 'Endeavor to ensure, as appropriate, that programmes for displaced persons do not increase risk and vulnerability to hazards.'

Para 20 (f): 'Develop specific mechanisms to engage the active participation and ownership of relevant stakeholders, including communities, in disaster risk reduction, in particular building on the spirit of volunteerism.'

How vulnerability and empowerment are included in statements and consultations on the successor to the HFA

Mid-Term Review

- 'The idea of incorporating disaster reduction in school curricula has been pursued with great enthusiasm over the past decade. A perception survey of children and young people undertaken in 10 countries indicates that these groups think that most progress has been made in this area. However, there is little evidence in the literature to suggest that this has been done within the framework of strategic educational planning at national levels. The complexity of incorporating new material in school curricula is often underestimated.' (p. 26)
- Another element where progress was noted as still lagging is on the implementation of cross-cutting issues in the HFA: multi-hazard approach, gender perspective and cultural diversity, community and volunteer participation [...] Inclusion of a gender perspective and effective community participation are the areas where the least progress seems to have been made. Both these points were discussed in the in-depth study commissioned by the Mid-Term Review on the Role of Women as Factor of Change in Disaster Risk Reduction [...] Initial data from the 2009–2011 HFA Monitor indicate that an impressively high number of countries (62 out of 70) do not collect gender disaggregated vulnerability and capacity information.' (p. 44)

Synthesis Report

- 'Addressing risk beyond 2015 also calls for attention to societal change and anticipating the influence of the changing role of women, the pressure and demographics of youth as change agents, the dynamics of new family and community structures that underpin resilience, and the role of social networks for sharing information and increasing accountability.' (p. 6)
- 'Building Women's Leadership: Large numbers of women are working collectively to combat the adverse effects of disasters and build resilience in urban and rural areas. However, family and income-generated responsibilities, coupled with, limited access to basic services, property rights, and quality employment, are still in many countries, constraining women and girls from participating in public decision-making processes such as framing priorities and investments in disaster risk reduction.' (p. 11)
- 'Consultations reaffirmed [...] the determination of women to assume leadership in promoting disaster risk reduction locally and nationally. Specific actions recommended through the International Day for Disaster Reduction and HFA2 meetings include recognizing the potential and current contributions of women's organizations, strengthening their capacities and coordination and promoting institutional commitments and accountability to gender-equitable risk reduction and sustainable development.' (p. 12)
- 'Related issues of community participation were repeatedly highlighted. Specific attention was given to the importance of ensuring community involvement in decision-making processes

and building partnerships with community-based or grassroots associations of youth, women, informal settlers, farmers, pastoralists, fisher-folk, indigenous peoples, local religious groups, among others. Stakeholders urged more support for capacity-building and awareness at the local level for the HFA2 [...]. Others emphasized the importance of engaging communities and facilitating their participation.’ (p. 13)

- ‘Inclusive approaches to disaster reduction were encouraged [...] with an emphasis on empowering women and youth to participate and lead. In particular, concern with children’s survival, well-being and protection emerged in many of the consultations. Emphasis was placed on school safety, education, and ensuring children and youth’s participation in risk analysis and resilience-building initiatives.’ (p. 13)
- ‘Disability was recognized as an issue that has received far too little attention with the consequence of increasing exposure of the people with disabilities and missing the opportunity to draw on their unique capacities, including the physically disabled, the blind and deaf. This has been identified as a priority for concerted action in the HFA2 with calls for their necessary participation in decision-making processes for disaster risk management.’ (pp. 13–14)
- ‘Specific actions recommended [...] included the provision of demographic and sex-disaggregated data assessments of disaster risk and losses and clarifying responsibility for implementing and monitoring sex-disaggregated indicators.’ (p. 16)

Chair’s Summary: Global Platform 2013

‘Focus was placed on efforts to ensure that all schools and hospitals are built to resilient standards, that all necessary school and hospital preparedness measures are in place and that attention has been given to the needs of persons with disabilities.’ (p. 2)

‘Engaging communities achieves results: Approaches that are culturally sensitive and based on the principles of inclusiveness, participation and empowerment have been identified as a means of ensuring sustained impact in building resilience. Women are a driving force for resilient societies. Indigenous peoples, displaced persons, youth and children’s groups, elderly, persons with disabilities and the vast array of voluntary associations each demonstrated how they have taken action to reduce disaster risk. Respecting local cultural heritage can build community resilience. [...] Systematic and meaningful inclusion of communities in planning, decision-making and policy implementation is a must.’ (pp. 2–3)

‘There is strong evidence that empowerment of communities and local governments to identify and manage their everyday risks, and to engage in the development of disaster risk reduction strategies, programmes and budgets provides a sound basis for building resilience.’ (p. 3)

Elements Paper

Despite previous recommendations as detailed above, there is no mention of gender aspects or of any other social aspects of vulnerability in the Elements Paper. There is no reference to the importance of gender-disaggregated information in the proposed set of indicators either.

RECOMMENDED READING

Learning from the local level for effective DRR:

Huairou Commission (2013) *What communities want: putting community resilience priorities on the agenda for 2015*.

Huairou Commission.

For a brief synthesis of recommendations to make resilience gender-sensitive:

GenCap Advisers, IASC GSWG and OCHA (2013) *Key messages on a gender perspective of resilience*.

Research commissioned by UNISDR on the Role of Women as Factor of Change in Disaster Risk Reduction:

Gupta, S. and Leung, I. (2011) *Turning Good Practice into Institutional Mechanisms: Investing in Grassroots Women’s Leadership to Scale Up Local Implementation of the Hyogo Framework for Action. An in-depth study for the HFA Mid-Term Review*. United Nations Strategy for Disaster Reduction, Geneva.

A useful resource to explain disability-inclusive DRR:

Handicap International (2008) *Mainstreaming Disability in Community Based Disaster Risk Reduction. A Training Manual for Trainers and Field Practitioners*. Handicap International India, New Delhi.

For an exhaustive compilation of articles addressing the social vulnerability and capacity dimension of DRR:

Wisner, B., Gaillard, J-C. and Kelman, I. (2012) *The Routledge handbook of hazards and disaster risk reduction*. London: Routledge.