



International Strategy for
Disaster Reduction



Making Disaster Risk Reduction Gender-Sensitive

Policy and Practical Guidelines



United Nations

This first version of Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines will be subject to consultations for further improvement. We welcome inputs, insight and experiences from readers, implementing partners and other stakeholders. Please provide your feedback to: isdr-gender@un.org

**Making Disaster Risk Reduction Gender-Sensitive
Policy and Practical Guidelines**

Published by UNISDR, UNDP and IUCN. Geneva, Switzerland, June 2009.

© United Nations, 2009

© UNISDR, UNDP and IUCN, 2009

All rights reserved

Any part of this text may be reproduced without permission provided that it is reproduced accurately and not in a misleading context and the source of the material is clearly acknowledged by means of the above title, publisher and date. The wide dissemination, reproduction and use of the document is encouraged. If any reproductions, translations or quotations are generated, a copy of the document or quotation is requested to be forwarded to UNISDR.

Cover: Fresco of José Venturelli
School of Balxert
Collection of the Commune of Vernier
Geneva, Switzerland
Photo: Henrik Thorlund

Acknowledgements

UNISDR gratefully acknowledges the contributions made to this publication by different stakeholders of the UNISDR System. The publication is a result of a collaborative effort of the Gender Working Group on Disaster Risk Reduction, facilitated by UNISDR.

Drafting Committee: Lorena Aguilar (IUCN), Feng Min Kan (UNISDR), Madhavi Ariyabandu (UNISDR), Rowena Hay (Umvoto Africa), Lucita Lazo (CAPWIP) and Ana Cristina Angulo Thorlund (UNISDR).

Contributors: Cheryl Anderson (University of Hawaii), Meenakshi Ahluwalia, Itza Castañeda , Xavier Moya, Rafael Van Dyck (UNDP), Maureen Fordham (University of Northumbria) and Tracy Raczek (UNIFEM).

Our particular thanks go to Andrea Quesada Aguilar who provided the initial research, analysis and outline for the chapters, to Adelia Branco who provided the initial review of national's reports to UNISDR and to Tze Ming Mok for helping to shape the publication with substantial editorial advice and analytical input.

This publication has also benefited from in-depth discussions at two international forums: The Third Global Congress on Women in Politics held in 2008 in Manila, organized by the Center for Asia-Pacific Women in Politics; and the International Conference on Gender and Disaster Risk Reduction held in 2009 in Beijing, organized by the All China Women's Federation, in collaboration with UNISDR.

This publication was produced under the guidance and supervision of Feng Min Kan, coordinated by Ana Cristina Angulo Thorlund, and designed and layout by Ramon Valle and Mario Barrantes with support from Lydie Echernier and Sylvain Ponserre of UNISDR Information Management Services.

It was prepared in respond to the request of governments attending the First Session of the Global Platform for Disaster Risk Reduction in 2007. The publication is also part of the UNISDR Biennial Work Plan 2008-2009, which was supported by the United Nations Trust Fund for Disaster Reduction and the Global Facility for Disaster Reduction and Recovery of the World Bank.

Preface

Disasters don't discriminate, but people do. Existing socio-economic conditions mean that disasters can lead to different outcomes even for demographically similar communities - but inevitably the most vulnerable groups suffer more than others. Research reveals that disasters reinforce, perpetuate and increase gender inequality, making bad situations worse for women. Meanwhile, the potential contributions that women can offer to the disaster risk reduction imperative around the world are often overlooked and female leadership in building community resilience to disasters is frequently disregarded.

IUCN, UNDP and UNISDR have been working jointly to integrate gender issues into disaster risk reduction across the board. For IUCN, the growing impact of climate change-related disasters on women is of immense concern. Meanwhile, UNDP's Eight Point Agenda for Women's Empowerment and Gender Equality in Crisis Prevention and Recovery, emphasizes the need to promote gender equality in disaster risk reduction initiatives and to support women and men to build back better. This joint publication is a result of a UNISDR-led process supporting implementation of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA).

This pivotal publication offers much-needed policy and practical guidelines for national and local governments to further implement the HFA. Disaster risk reduction that delivers gender equality is a cost-effective win-win option for reducing vulnerability and sustaining the livelihoods of whole communities. Urgent risk reduction action from the global to the local level is also crucial for tackling climate change adaptation, and for strengthening overall development gains in an integrated manner. We hope this landmark document will help reverse the slow and inconsistent progress thus far on confronting these pressing challenges.

Margareta Wahlström
Assistant Secretary-General
for Disaster Risk Reduction
United Nations

Julia Marton-Lefèvre
Director General
IUCN

Jordan Ryan
Assistant Administrator
and Director
BCPR, UNDP

Introduction

Gender mainstreaming is a concept that most find easy to agree with, but fewer consistently do well. The same can be said of disaster risk reduction. When these two issues are brought together in efforts to mainstream gender into disaster risk reduction, governments and practitioners have found a gap in policy and practical guidance. They know why they should do it, but not always how. This is not because the task is inherently difficult; rather, there is not enough precedent guidance and practical understanding.

To respond to this, UNISDR has stepped up its efforts in support of mainstreaming gender perspectives into disaster risk reduction since 2006. This publication is the result of extensive consultations and a response to the call for clear policy and practical guidance for mainstreaming gender perspectives into disaster risk reduction.

The process included an initial review of government reports and reports from major conferences on gender and disaster management or reduction since 2002, organization of two consultative meetings with experts in 2007 and 2008; introduction of the issue to national governments at the first Global Platform for Disaster Risk Reduction in 2007, and further and wider discussion of gender and disaster risk reduction at the Third International Congress of Women in Politics on Gender, Climate Change and Disaster Risk Reduction in October 2008, and the International Conference on Gender and Disaster risk reduction in April 2009.

Our overarching goal is to contribute to building the disaster resilience of both women and men, in order to achieve sustainable development. This publication's specific objectives are to:

- Increase understanding of gender concerns and needs in disaster risk reduction;
- Develop government capacity to address gender issues in disaster risk reduction;
- Encourage governments to take action to integrate gender perspectives into disaster risk reduction legislation, policies and programmes, for sustainable development.

Included in this publication is a policy guideline on gender mainstreaming, and practical guidelines on how to institutionalize gender-sensitive risk assessments, implement gender-sensitive early warning systems, and use gender-sensitive indicators to monitor gender mainstreaming progress. Also included is a summary of the limited global progress in this task so far, and a list of further readings.

The guidelines have been developed with the support of experts and in consultation with a range of governments. We sincerely hope that this publication provides the appropriate practical support that was requested by governments, and that it contributes to concrete change and real mainstreaming of gender into disaster risk reduction.

Feng Min Kan
Special Adviser, UNISDR

Table of Contents

Acknowledgments	iii
Preface	iv
Introduction.....	vi

Chapter 1: Mainstreaming Gender into Disaster Risk Reduction: Progress and Challenges 1

1.1 Summary	2
1.2 Global progress	4
1.3 Regional progress	11
1.4 National progress	16
1.5 Conclusion.....	18

Chapter 2: A Policy Guideline for Gender-Sensitive Disaster Risk Reduction..... 21

2.1 Context	22
2.2 Rationale	24
2.3 Policy foundations	26
2.4 Recommended approaches	27
2.5 Priority areas for action.....	28
2.6 Monitoring and reporting.....	30

Chapter 3: A Gender-Sensitive Risk Assessment 33

3.1 What is disaster risk assessment?	34
3.2 Why do we need to make risk assessment gender-sensitive?	35
3.3 How do we conduct a gender-sensitive risk assessment?	41

- A. Determining the existence and degree of vulnerabilities and exposure to risk: Why gender matters 42
- B. Identifying gender-based capacities and resources available to address or manage risk: Women as agents of change..... 47
- C. Determining acceptable levels of risk: Women’s perspective 50
- D. A checklist for gender-sensitive risk assessment..... 52

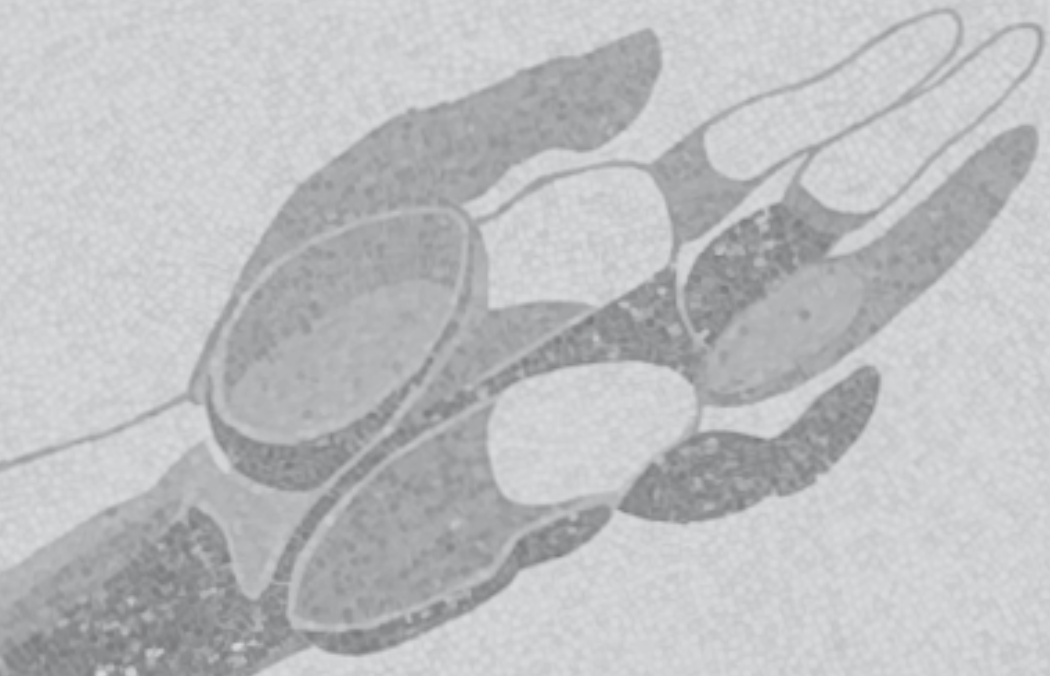
Chapter 4: Gender-Sensitive Early Warning Systems61

- 4.1 What is early warning? 62
- 4.2 Why do we need gender-sensitive early warning systems? 65
 - A. Monitoring and warning services 65
 - B. Dissemination and information 66
 - C. Response capability 67
- 4.3 How do we build a gender-sensitive early warning system? 69
 - A. Monitoring and warning services: Develop hazard and early warning services 73
 - B. Dissemination and information: Communicate early warning and risk information..... 77
 - C. Response capability: Build national and community response capability 79
- Annex Chapter 4..... 85

Chapter 5: Gender-Sensitive Indicators for Disaster Risk Reduction	89
5.1 What are indicators?.....	92
5.2 Why are indicators important?.....	92
5.3 What are gender-sensitive indicators?	93
5.4 How can good indicators be built?.....	96
5.5 How do we use indicators during the project cycle of a disaster risk reduction intervention?	101
5.6 Some examples of gender-sensitive indicators for policy development and early warning in disaster risk reduction	106
 Annex Chapter 5.....	 123
 Annexes	 127
1. Acronyms	128
2. Terminology	130
3. Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction.....	132
4. Manila Declaration for Global Action on Gender in Climate Change and Disaster Risk Reduction	137
5. Further readings	143

Chapter 1

Mainstreaming Gender into Disaster Risk Reduction: Progress and Challenges





Mainstreaming Gender into Disaster Risk Reduction: Progress and Challenges

1.1 Summary

This summary serves as a quick reference to progress and challenges in mainstreaming gender perspectives in disaster risk reduction. The methodology used for gathering this information includes a desk review of national reports available to UNISDR since 2004; analyzing major events held on gender and disaster issues since 2002; and consulting with experts and specialists active in issues related to gender, governance, climate change, environment, and disaster risk reduction in 2007, 2008 and 2009. The summary also benefited from the discussions and expertise of multi-stakeholder participants of two major international conferences on gender, disaster risk reduction and climate change held in Manila 2008 and in Beijing 2009.

There has recently been a critical shift in the mainstreaming of gender perspectives into DRR: from a women-focused approach to a gender-focused approach, based on the premise that the roles and relationships of women and men in DRR should be analyzed within the overall gendered socioeconomic and cultural context. On top of this shift, the strategic focus of disaster management has changed from reactive disaster response to long-term proactive disaster risk and vulnerability reduction, where gender and DRR are considered necessary to achieving sustainable development.

At the global level, available information shows that efforts to promote gender equality in DRR have focused on advocacy and

awareness-raising, along with support for policy changes and gender mainstreaming in inter-governmental processes.

Some regional inter-governmental level policies and strategies focusing on disaster management and DRR have also come into place over the last five years or so. Unfortunately, commitment to gender issues is rarely stated explicitly; rather, it can only be assumed to be an implicit part of larger commitments to the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters. At the programme or operational level, implementation is ad hoc and inconsistent, and progress is largely due to the dedicated work of a handful of organizations, particularly NGOs.

An increasing number of governments are recognizing the importance of gender issues in their national DRR reporting to UNISDR, although meaningful progress is far from adequate. Progress in the last five years started from a very low baseline. In 2004 only 19 out of 118 countries mentioned gender or women's issues in their national reports for the World Conference on Disaster Reduction. By 2009, 51 of 62 national reports to UNISDR acknowledged gender as important to DRR, but there was still very little concrete mainstreaming in policies and programmes.

Ultimately, although there are numerous policy documents clearly stating political commitment to mainstream gender issues into DRR, no tangible or sustainable progress has resulted, with the exception of some ad hoc activities. Furthermore, there has not been much substantial progress made in mobilizing resources for mainstreaming gender perspectives into disaster risk reduction process.



1.2 Global progress

Gender issues have slowly become visible on the global DRR agenda after decades of marginalization in inter-governmental processes. This is largely due to consistent global advocacy, awareness-raising and technical support from the UNDP and UNISDR in cooperation with other UN agencies, such as UNIFEM, United Nations Commission on the Status of Women, regional organizations and civil society organizations.

Key events

2001

An Expert Group Meeting on 'Environmental Management and the Mitigation of Natural Disasters: A Gender Perspective', Ankara, Turkey, was organized by the United Nations Division for the Advancement of Women, in collaboration with the UNISDR. It focused on women's risk management capacities and skills, challenging the dominant depiction of women as victims. The group recommended the inclusion of gender-sensitive environmental management and DRR in the agenda of the 2002 World Summit on Sustainable Development (WSSD).

2002

The recommended issues from Ankara duly appeared in the WSSD agenda and in the draft Johannesburg Plan of Action adopted at the Summit's conclusion.

The 46th session of the United Nations Commission on the Status of Women focused on Environmental management and the mitigation of natural disasters. The Commission adopted a set of policy recommendations that recognized women's role in disaster reduction, response and recovery. Governments called for actions to strengthen their capabilities, ensure their full participation. They also called for collection of sex-disaggregated data and good practices.

2004

Workshop on Gender Equality and Disaster Risk Reduction held in Honolulu, Hawaii. Building on DRR gains, workshop participants emphasized that opportunities for gender-sensitive practices and policies were still too often overlooked in community-based risk reduction efforts and government initiatives. Participants agreed to develop a Gender and Disaster Sourcebook. They also called upon the Second World Conference on Disaster Reduction (WCDR II) and ongoing work in DRR to consciously integrate gender into policies and practices.

2005

WCDR II, January 2005 held in Kobe, Japan. The Platform on Gender Equality and Disaster Risk Reduction requested all nations represented at the World Conference to consider gender mainstreaming in five areas by:

- Mainstreaming gender perspectives into all disaster management initiatives;
- Building capacity in women's groups and community-based organizations;
- Ensuring gender mainstreaming into communications, training and education;
- Ensuring opportunities for women in science and technology;
- Ensuring gender mainstreaming in programme implementation, monitoring and evaluation.

The 49th Session of the Commission on the Status of Women adopted a resolution on natural hazard-related disasters that urges governments to integrate gender perspectives into all phases of their planning for disaster preparedness, and to integrate a gender perspective in post-disaster relief.



2006

Gender and Disaster Risk Reduction was included on the agenda of the 2006 International Disaster Reduction Conference in Davos, Switzerland.

2007

Stockholm Forum for Disaster Reduction and Recovery was organized by the World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) in cooperation with the Swedish International Development Agency (SIDA) and UNISDR. The Forum recognized the need for long-term, gender-inclusive engagement to address underlying vulnerability and poverty, in order to sustain progress towards the MDGs.

In Haiti, the High-Level Conference on Risk Reduction, Mitigation and Recovery from Natural Disasters in the Greater Caribbean, was organized by the Association of Caribbean States. It resulted in an Action Plan for integrating gender as a cross-cutting concern into DRR policies, plans and actions in the Greater Caribbean.

2008

The Third Global Congress of Women in Politics and Governance was held under the theme: Gender, Climate Change and Disaster Risk Reduction. It resulted in the adoption of the Manila Declaration for Global Action on Gender, Climate Change and Disaster Risk Reduction. It was attended by legislators and decision-makers and was organized by the Center for Asia-Pacific Women in Politics, in partnership with UNISDR, UNDP, IUCN, UNEP, GGCA, UNIFEM, ADB and WEDO.

2009

The International Conference on Gender and Disaster Risk Reduction in Beijing, China was hosted by the All China Women's Federation and UNISDR and co-hosted by the Ministry of Civil Affairs and the UN system in China. Building on the Third International Congress of Women in Politics, more than 200 participants from 43 countries reviewed the progress made and challenges faced in mainstreaming gender perspectives into DRR. Participants raised concern that gender

remains a marginalized issue in the current national and international negotiations around DRR and climate change adaptation and that gender considerations have been hardly applied as a fundamental principle in policy and framework development.¹ The Conference reached consensus on a set of nine achievable actions that are part of the *Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction*.

In light of these global-level events, it can be seen that progressive advocacy and awareness-raising have contributed to the increased understanding of DRR and gender as cross-cutting matters that must be factored into all development sectors. These issues cannot be dealt with by isolating them from socioeconomic development.

United Nations support

All UN agencies have incorporated gender policies and strategies for mainstreaming gender into their respective development and humanitarian mandates. Since DRR cuts across all mandated areas of UN agencies, from development to post-disaster relief and recovery, this has provided an enabling environment for gender mainstreaming in DRR.

Compared with other UN agencies, UNDP and UNISDR have clear DRR mandates. While UNDP focuses more on capacity building and integration of DRR into development planning and programming, particularly at country level, UNISDR has the mandate for coordinating the implementation of the International Strategy for Disaster Reduction (ISDR) and Hyogo Framework within UN agencies and governments. Following the January 2005 World Conference on Disaster Reduction, both UNDP and UNISDR have increased their efforts to support governments in mainstreaming gender into DRR.

¹ See Annex 2: Beijing Agenda for Global Action on Gender Sensitive Disaster Risk Reduction



UNDP

The UNDP gender equality strategy for 2008-2011, based on its 2006-2007 Gender Action Plan, emphasizes rights-based actions and underlines operational and institutional priorities. To focus specifically on gender issues in disaster contexts, the organization has adopted the Eight Point Agenda: Practical, positive outcomes for girls and women in crisis (8PA) in which one point listed is 'Promote gender equality in disaster risk reduction: Value women's knowledge and experience.'

Through advocacy work on Security Council Resolutions 1325 and 1820 and the roll-out of the 8PA, gender issues, particularly Gender-Based Violence and women's needs during and after crises have been recognized by the donor community, policy makers and crisis prevention and recovery practitioners.

However, UNDP still faces many challenges in promoting gender equality and women's empowerment at country level. UNDP aims to strengthen national capacity in this regard, such as in crisis-related gender analysis, including gender statistics into disaster risk, impact and need assessments. UNDP also aims to ensure women's participation in all dialogues on generating solutions for disaster risk management.

As part of the Cluster Working Group on Early Recovery, the United Nations Population Fund (UNFPA) and UNDP are leading a project to develop gender-aware profiles for countries at risk of disaster and conflict. UNDP has advocated for and facilitated technical support for mainstreaming gender sensitive disaster risk reduction in climate change adaptation, UNDAF, PRSP and national policies in many countries.

UNISDR

In 2008 at the 63rd General Assembly, the UN Secretary-General reported on the increased promotion of gender mainstreaming by UNISDR. UNISDR's focus in integrating gender into DRR is three-fold:


- Advocating the importance and necessity of gender-equality in achieving the overarching goal of the Hyogo Framework;
- Educating and mobilizing both men and women to promote gender equality in DRR;
- Providing guidance and good practices for gender-sensitive policies and programmes related to DRR.

In early 2007, UNISDR launched an initiative to build global partnerships for mainstreaming gender concerns and needs into DRR. The initiative provides a platform for gender activists and different stakeholders to:

- Share information, knowledge and experience in addressing gender issues;
- Increase the voice of women and the visibility of women's roles in and contributions to DRR;
- Develop policy guidelines on gender and DRR.

In 2006 UNISDR published *Words into Action*, containing DRR policy guidelines for national governments. UNISDR also helped to bring gender perspectives into the government session of the June 2007 Global Platform for DRR, opening the door for developing policy guidance for governments on gender and DRR.

UNISDR has also published good practices from various stakeholders, including UN agencies, donor agencies, NGOs and governments, in an effort to highlight that:

- 
- A gender-inclusive approach to DRR can achieve win-win results for families and communities;
 - Women, if given equal opportunities, can perform multi-functional roles well - as participants, managers, decision makers and leaders in the field of DRR.

In 2008 UNISDR organized a multi-stakeholder expert group to advance policy guidance and develop training modules for capacity building.

The international agenda

The Hyogo Framework, endorsed by 168 national governments at the 2005 World Conference on Disaster Reduction, contained the most explicit reference to gender of any other international policy frameworks for DRR. It stated that '[a] gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training.'

In 2006, governments recognized the neglect of women's needs, concerns and contributions to DRR at the 61st General Assembly and adopted a resolution concerning the need to speed up the promotion of gender mainstreaming and women's participation in decision-making in DRR initiatives.

Gender issues were addressed at the first session of the Global Platform for Disaster Risk Reduction in 2007. The session summary pointed out that while women play important roles in building a culture of disaster prevention, particularly at the community level, this was not well recognized and, so, their potential to contribute to DRR was mostly left untapped. The fact that women and girls are disproportionately affected by disasters was also noted. The summary urged ISDR System partners to raise awareness, take action to address gender

factors in disaster risk, and actively promote women's leadership and participation in DRR.

The Manila Declaration for Global Action on Gender, Climate Change and Disaster Risk Reduction endorsed by 250 participants at the Third International Congress of Women in Politics, stressed the lack of a gender perspective in global agreements on climate change. There were 12 key declarations, including that women and men must equally participate in climate change and DRR decision-making processes at community, national, regional and international levels; and that gender-responsive budgeting must be pursued by Governments and international organizations to ensure adequate allocation of resources to enhance women's capacity, especially the poorest and most disadvantaged, to enhance their resilience to climate change and disasters.

The Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction (2009) to be implemented by 2015 sets out guidance for practical action by governments and international organizations to build gender-effective disaster resilience at the local and national levels. It calls for political commitment to mainstreaming gender in disaster risk reduction and encourages governments to carry out gender-sensitive vulnerability, risk and capacity assessments and monitoring.

1.3 Regional progress

Awareness of gender-based disaster impact has grown at the regional level, resulting in increased pressure on disaster response management agencies and the institutional machinery of disaster management. There is a progressive trend towards the issue in policy and practice, albeit at a slow pace and in an ad hoc manner. A number of key inter-governmental DRR-focused mechanisms have been established over the last five years, but the cause of gender in DRR lags behind overall DRR regional progress.



Africa

Nearly all 2009 national reports from the region referred to women's or gender issues. Africa has a Regional Plan of Action and Guidelines for Mainstreaming Disaster Risk Assessment into Development, in which the importance of gender is discussed. However, not all African countries were at the same stage of development with regard to gender mainstreaming.

The Americas

In the region, most countries have institutions dealing with gender issues at national level, but there is no consistent link with gender equality laws and DRR. Reporting included small-scale projects on gender and DRR, including skills training.

Asia and the Pacific

In Asia, some progress has been made in producing information, guidelines and capacity building on the subject. For instance, guidelines for addressing gender issues in disaster management in the Asia region have been produced by Duryog Nivaran (Network for Disaster Mitigation in South Asia) and Practical Action South Asia (Intermediate Technology Development Group South Asia), the International Centre for Integrated Mountain Development and the Asia Pacific Forum on Women, Law and Development.

Specific commitment to the issue was made in the Delhi Declaration resulting from the 2nd Asian Ministerial Conference on Disaster Risk Reduction in November 2007. The Declaration contained the following recommendation: 'Encourage the national governments to make special efforts to mainstream gender issues in DRR so as to reduce the vulnerability of women and to recognize the important role women can play in disaster risk reduction.'

Disaster-related policy and strategy documentation of many other inter-governmental organizations make no explicit reference and commitment to gender issues. These regional commitments to the Hyogo Framework include the 2006 South Asia Association for Regional Cooperation (SAARC) Comprehensive Framework on Disaster Management, the 2005 Association for South East Asian Nations (ASEAN) Agreement on Disaster Management and Emergency Response, and the 11th Ministerial Session of the European and Mediterranean Major Hazards Agreement.

Such progress can be considered to contain implicit references to gender, as they commit to the Hyogo Framework and the MDGs, which are explicitly committed to gender issues. However, these 'implicit' commitments have not resulted in regional policies, legislation and practices that mainstream gender issues.

Europe

Gender equality has been actively promoted in Europe for decades and European countries often consider gender to be covered in DRR by default, through existing equality laws, education and generally gender-sensitive practices. As such, gender issues are not yet specifically integrated in all DRR plans and programmes. France's DRR plan is notable in this field for specifying that it must reach both men and women. Women are also not equally represented in the national DRR platforms.

Donors

Supported by international donors for the gender and DRR theme remains far from adequate. Most support received is only project-based, which is a barrier to sustainability.



United Nations

Regionally, UNDP initiatives are making progress. In the Latin American region², a group called Risk Management with Gender Equity Learning Community organized their First Regional Meeting on Risk Management and Gender Equity in 2007 and conducted a project called *Knowledge management for the transversality of gender within disaster risk management*, to identify, share, systematize, disseminate and strengthen existing resources and services.

A UNDP Caribbean Risk Management Initiative project, Enhancing gender visibility in Caribbean disaster risk management, uses research from five selected countries in the Caribbean. The results are expected to shed light on the extent that risk management governance mechanisms effectively incorporate gender considerations in these countries.

UNDP recovery programmes have worked on livelihood resilience for women in Haiti, Myanmar and Peru. UNDP has also made policy and practical guidelines on gender and DRR available in local languages in South Asia, contributing to capacity development. For example UNDP India and the Government of India produced a publication called 'Women as Equal Partners: Gender Dimensions of Disaster Risk Management Programme - Compilation of Good Practices'. This collection showcases gender equity practices in disaster risk reduction from several states in India - Assam, Tamil Nadu, Orissa, Uttar Pradesh, Gujarat, Delhi and Maharashtra. Also, UNDP Sri Lanka Office collated the lessons learned in the aftermath of the Indian Ocean Tsunami as a toolkit on cross-cutting issues for promoting an integrated approach to disaster recovery.

2 For UNDP initiatives in the Latin American region visit www.americalatinalgenera.org/tematica/cvd-leermas.php?Titulo=Tema5m3&vinculos=Desastres

In 2008, United Nations Development Fund for Women (UNIFEM) initiated the Thematic Group on Gender in Asia that includes DRR as an area of focus. UNISDR provided technical assistance as a member of this group.

NGOs

Many international NGOs and development organizations with regional level operations related to disaster management make no explicit commitment to gender in their strategy documents. On the other hand, there are some efforts to address gender issues at the operational level. These efforts typically manifest through programmes that target women; however, no evidence exists that these efforts are consistently being followed through or if they address gender relations overall in DRR. This indicates gaps in the understanding of gender issues at the organizational planning and implementation levels.

Community-based initiatives

Activities and events at national and regional levels, particularly those that are part of international and local NGOs and women's organizations, have resulted in greater awareness of the issue. The advocacy of number of active and dedicated groups, along with the above-mentioned international activities and events, have increased recognition of the need for gender perspectives in DRR at both the international and national levels. Analytical frameworks and tools have been developed, several research initiatives have been implemented, and some relevant organizational policies have been written.

Some examples include:

- Knowledge sharing and best practice sharing by the Gender and Disasters Network;



- Initiatives by UNICEF's Regional Office for South Asia on education and gender aspects of disasters;
- Concrete actions by UNDP's Bureau for Crisis Prevention and Recovery to mainstream gender into all of their programmes, formulate gender mainstreaming strategies, and develop gender-focused assessments and knowledge products;
- Efforts by Duryog Nivaran and Practical Action South Asia to research gender aspects of DRR and develop analytical frameworks;
- Community-level initiatives by GROOTS (Grassroots Organizations Operating Together in Sisterhood International), an international network of grassroots women's organizations.

Heightened awareness due to major disasters

Major disasters that have occurred over the past decade, such as the Indian Ocean Tsunami, Hurricane Katrina and the Kashmir Earthquake, have highlighted the gendered aspects of disaster risk and vulnerability. For example, response and recovery programmes encountered heavy criticism for gender insensitive practices that often made the situation for women worse. As a result, the issue now receives greater attention from researchers, academics, and relief and recovery agencies.

1.4 National progress

At national levels, governments are increasingly aware of gender issues in DRR, but are not necessarily increasingly active.

In 2004 only 19 out of 118 national reports received by UNISDR from governments mentioned gender issues. The reports reflected poor awareness of gender, and a reliance on a disaster response-focused

approach that did not factor in gender. In 2007 only 10 out of 62 reports received by UNISDR for the first session of the Global Platform for Disaster Risk Reduction touched on gender or women's issues. There was overall progress in awareness on the issue, however most initiatives reported were focused on gender in disaster management rather than disaster risk reduction.

In 2009, 52 out of 62 national reports submitted to UNISDR through the new reporting tool HFA Monitor³ reported full acknowledgement of the important role that gender issues and women play in DRR. The HFA Monitor gave a clearer range of responses for reporting on gender progress and gave the issue prominence, which may have contributed to this increase in government acknowledgement. However, it was also clear that beyond this acknowledgement, there was very little significant reported progress on mainstreaming gender issues into policies, programmes and initiatives.

There was some limited progress in government-led awareness raising, in the absence of (or as a potential precursor to) actual changes in practice. Tajikistan reported on a roundtable on the integration of gender issues into DRR, which took place with support of UN agencies. Venezuela has fully acknowledged the gender issue and has developed a framework to address it within DRR, but this has not yet filtered down to changes in implementation.

Governments including Mozambique also reported on valuable community-based initiatives addressing women's DRR concerns in remote areas, which were however not replicated at a national level. Of the few governments that reported on steps that went beyond these early and limited steps, Australia and Malawi were the most prominent.

3 The HFA Monitor and review tool – systematically standardizes existing data and assessments/ reviews of progress on the on the implementation of disaster risk reduction measures at the national level. National's reports submitted to UNISDR by February 2009 are available in PreventionWeb at <http://www.preventionweb.net/english/hyogo/national/reports/?pid:23&pi1>



The Australian government reported on a coherent agenda of social inclusion and ongoing efforts for community resilience in support of including gender into DRR. In Malawi, gender issues have been advocated at national level for DRR, and available gender-disaggregated data has been used for decision-making purposes.

In a nutshell, the national reports generally reflected a poor degree of gender mainstreaming at country level. There are gaps in dealing adequately with gender issues in their policies, legislation and strategies. Although in some countries, gender equality is defined by law, links with DRR have not been achieved. Poor understanding of gender issues in DRR is widespread among most countries, showing that it is high time for governments to take more action.

1.5 Conclusion

International frameworks such as the Hyogo Framework and the Millennium Development Goals are leading to changes in policy, legislation, financing or programming for disaster risk reduction and sustainable development. However, the mainstreaming of gender perspectives in disaster risk reduction still requires greater efforts and priority at all levels, from local to global. Much still needs to be done to secure concerted and coordinated efforts by global, regional and national actors. Adequate financial investments and tangible commitments are urgently required to pursue gender-sensitive disaster risk reduction at the operational level.

Challenges for gender mainstreaming in DRR

Poor understanding of gender in DRR linkages at the policy and practitioner levels. Gender equality in DRR does not mean merely addressing women's issues - it means addressing concerns of both men and women, the relations between them and the root causes of imbalances.

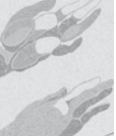
Gender issues are often institutionally marginalized within organizations. The vogue for Gender Focal Points or Gender Desks results in easily marginalized positions with not enough authority to advance the issue organization-wide in a multi-disciplinary way. This, in effect, is the opposite of mainstreaming. Gender issues become perfunctorily treated as 'just women's issues', there is a notable absence of male champions, and gender 'expertise' is applied in isolation from development processes like DRR.

Gender continues to be identified as an 'add on' aspect, rather than an integral component. The development and DRR fields are now addressing relatively new priority programming issues such as climate change that compete with other programmes for donors. This means that gender and DRR can be de-prioritized when they are not understood to be cross-cutting issues.

There is a lack of genuine political accountability and financial resources for global advocacy and action on gender and DRR. Commitment to the issue largely remains in the documentation alone. There have been no significant moves to translate words into actions in terms of concrete policies, finances, substantive programmes or accountability measures. Gender mainstreaming in DRR remains a free choice with no accountability, no checks and balances, no ownership, and no medium or long-term commitment.

Gender events have not been adequately linked with inter-governmental DRR processes. Recommendations on mainstreaming gender into DRR that are being produced have a limited impact because they are not being considered or implemented by national governments and UN agencies.

Lack of institutional and individual capacity and tools to mainstream gender and DRR. Gender and DRR knowledge and capacity are still possessed by only a relatively small group of professionals and



practitioners working in these two areas. The majority of disaster managers and professionals often lack the knowledge required to address gender issues in DRR. Similarly, Gender Focal Points in the development field frequently lack the technical expertise needed to use DRR as an opportunity to promote gender equality.

Recommendations

To address these challenges, governments, UN agencies, regional organizations and other stakeholders should:

1. Increase genuine political accountability and financial resources for global advocacy and action on mainstreaming gender in DRR;
2. Improve conceptual and practical understanding of the linkages between gender and DRR, particularly at the national level;
3. Build institutional and individual capacity and tools for mainstreaming gender into DRR.

Chapter 2

A Policy Guideline for Gender-Sensitive Disaster Risk Reduction





A Policy Guideline for Gender-Sensitive Disaster Risk Reduction

2.1 Context

The impact of disasters is on the rise worldwide. There is an urgent need to halt that rise and to reduce disaster impact. This can only be done by shifting the official paradigm from a sole emphasis on disaster response to comprehensive disaster risk reduction (DRR).

Recognising the need for this new paradigm, governments adopted the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters* at the World Conference on Disaster Reduction in January 2005. The Hyogo Framework recognized that DRR is a cross-cutting development issue, not a purely humanitarian one.

The Hyogo Framework emphasizes that DRR must be addressed in the context of socioeconomic development, and mainstreamed into development planning and actions through five processes. This is reflected in the Hyogo Framework's five priority areas for action. Integration of gender perspectives is needed in all these processes in order to ultimately ensure that DRR policies and programmes are gender-sensitive. This is underlined in the Hyogo Framework as a necessary condition of effective DRR.

- The political process requires national authorities to create an enabling environment for DRR;
- The technical process stresses the important role and application of science and technology in DRR;

- The socio-educational process focuses on ways to increase citizens' understanding, knowledge and skills for reducing disaster risks;
- The development process underlines the importance and necessity of integrating DRR into development practices;
- The humanitarian process emphasizes the importance of disaster preparedness and effective relief assistance, with increased effort in factoring DRR into disaster preparedness and recovery.

The Hyogo Framework also states that a gender perspective should be integrated into all DRR policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training.

To implement the five priorities of the Hyogo Framework, a new multi-stakeholder and inclusive ISDR System is being strengthened. 131 countries have designated Hyogo Framework focal points and 50 countries have established multi-stakeholder national platforms. But gender perspectives need to have a much stronger presence.

Tangible progress has been made in DRR at the national level, but gender perspectives remain marginal. This is largely due to poor understanding of the link between gender and DRR. Improving this understanding is particularly vital at the national level, where the right policies, legislation and decisions can make a substantial difference in addressing women's and men's different vulnerabilities and disaster risks. Change can be made at this level through greater insight into the different experiences, skills and possible roles of men and women in DRR.

A gender perspective was introduced and well-received during the government session of the first Global Platform in 2007. UNISDR was then asked to provide policy guidance on how to integrate a gender



perspective into DRR processes. In response, this policy guideline has been developed, along with practical guidelines to support its implementation.

2.2 Rationale

Disasters result from the combined factors of natural hazards and people's vulnerabilities. These vulnerabilities take the form of physical exposure, socioeconomic vulnerability, and limited capacity to reduce vulnerability and disaster risk. Capacities to reduce vulnerabilities and risks arise out of a complex mix of factors, which include poverty, social class, age group, ethnicity and gender relations.

The current gender relations between men and women in disaster risk reduction have everything to do with the roles and responsibilities women and men have at home and in society. These roles result in different identities, social responsibilities, attitudes, and expectations. Such differences are largely unfavourable to women and lead to gender inequality cutting across all socioeconomic development, including differences in vulnerabilities to disasters, and different capacities to reduce risk and respond to disasters. Crucially, women's limited access to information and knowledge inevitably increases their disaster vulnerability and risk, and that of their families.

While women's vulnerability to disasters is often highlighted, their role in fostering a culture of resilience and their active contribution to building disaster resilience has often been overlooked and has not been adequately recognized. Women are largely marginalized in the development of DRR policy and decision-making processes and their voices go unheard.

Strong evidence from good practices of gender-sensitive DRR worldwide shows that both men and women benefit from a gender-balanced approach to DRR – ‘men and women’ meaning in practical terms, everyone, and by implication, their families, communities, societies and nations. Equal and active participation of women and men in DRR makes it possible to achieve the overarching goal of the Hyogo Framework - building the resilience of nations and communities to disasters, which is essential to achieving the Millennium Development Goals and sustainable socioeconomic development.

Few existing DRR policies are gender-sensitive. The gender-specific capacities, vulnerabilities, needs and concerns of both women and men have not been adequately assessed, documented and evaluated. To effectively reduce disaster vulnerabilities and risks requires that policy and decision makers understand the benefits and efficiency gains of mainstreaming a gender perspective.

DRR and gender are both cross-cutting development issues. They need to be addressed through a holistic and multi-stakeholder approach and coordinated joint actions through political, technical, social, developmental and humanitarian processes. Mainstreaming gender into DRR offers an opportunity for re-examining gender relations in society from different angles and enhancing gender equality in socioeconomic development. It also makes it possible for nations and communities to achieve disaster resilience. This is a win-win option for governments and organizations to achieve sustainable development.



2.3 Policy foundations

The Member States of the United Nations have demonstrated consistent political commitment to gender equality. Over the years this has been emphasized in the UN charter, UN Conventions, Declarations and Programmes of Action.

These policy guidelines are mainly based on:

1. The Universal Declaration of Human Rights (1948);
2. Convention on the Elimination of All Forms of Discrimination against Women (1979);
3. Agenda 21 (UN Conference on Environment and Development (1992);
4. The Hyogo Framework for Action 2005-2015: Building Resilience of Nations and Communities to Disasters (2005);
5. The United Nations Declaration on the Rights of Indigenous People (2007).

The Universal Declaration of Human Rights, which affirms the equal rights of men and women, and the Convention on the Elimination of All Forms of Discrimination against Women are together commonly referred to as the international legal framework for the equal rights of women. Under this framework, governments are bound to guarantee men and women equal opportunities in terms of economic, social, cultural, civil, and political rights. State Parties agree to incorporate the principle of equality of men and women in their national constitutions and/or other appropriate legislation, and to ensure, through law and other appropriate means, the practical realization of this principle.

Chapter 24 of the Agenda 21 UN Conference on Environment and Development calls upon governments to make necessary

constitutional, legal, administrative, cultural, social, and economic changes in order to eliminate all obstacles to women's full involvement in sustainable development and in public life. Agenda 21 is to be achieved through government policies, national guidelines, and plans to ensure equity in all aspects of society, including women's 'key involvement' in decision-making and environmental management.

The Hyogo Framework states that a gender perspective should be integrated into all DRR policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training.

The United Nations Declaration on the Rights of Indigenous Peoples specially prohibits discrimination against women, providing that all the rights and freedoms recognized in the Declaration be guaranteed equally to male and female indigenous people.

The above instruments have provided a comprehensive legal framework for policy guidelines for promoting gender equality in DRR, which is closely linked with human rights, equality, the environment, and socioeconomic development issues.

2.4 Recommended approaches

A set of complementary approaches should be used to mainstream gender perspectives into DRR.

- A rights-based approach should be the overall guiding approach to mainstreaming gender perspectives in DRR. It opens the way to upholding the full range of human rights of men and women in socioeconomic development processes.
- The gender and development approach is needed in order to re-examine, from a gender perspective, the socioeconomic



and political institutions and policies that affect development for women and men. “Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality.”⁴

- A participatory approach is needed for ensuring equal and gender-sensitive participation of women and men in risk analysis, leading to better policy-making and programme design.
- The DRR approach is needed to bring multiple stakeholders together to address gender mainstreaming through political, technical, social, developmental and humanitarian processes (Please see disaster risk reduction framework pag).

2.5 Priority areas for action⁵

To address a gender perspective in DRR requires change in the mindsets and attitudes of policy makers and implementers. Every citizen has a role to play in reducing disaster risk, but governments are best positioned to create an enabling environment for gender equality in DRR. Governments have the primary responsibility for promoting gender equality and building disaster resilience at community and national levels. Higher-level

⁴ Report of the ECOSOC (A/52/3, 18 September 1997)

⁵ The priority areas for action are in line with the Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction adopted by participants from 43 countries at the International Conference on Gender and Disaster Risk Reduction in Beijing, China in April 2009

legislators and policy makers should be accountable for making progress in mainstreaming gender into DRR.

In line with international legal instruments and agreements, Governments must:

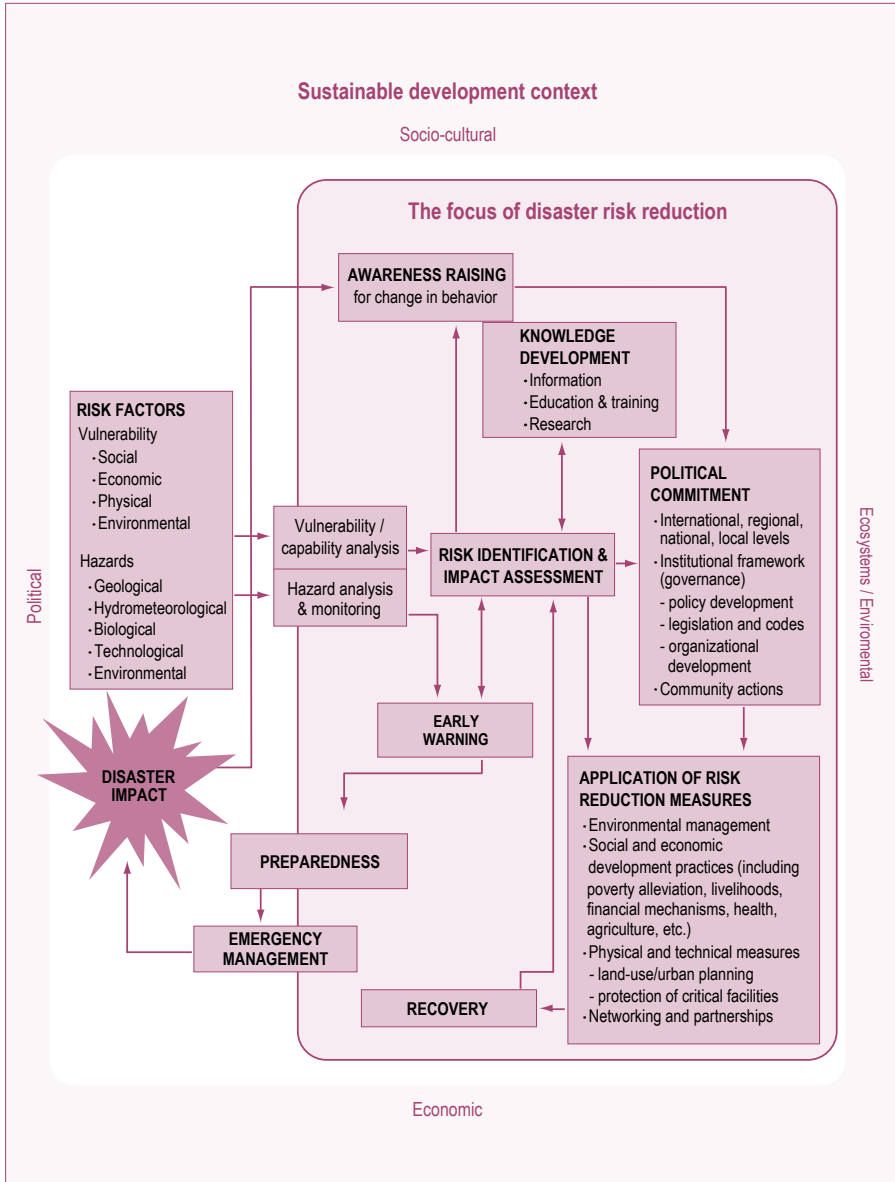
- Commit to gender analysis and gender mainstreaming through enhanced cooperation and collaboration between Ministries responsible for disaster risk reduction, climate change, poverty reduction and gender issues;
- Review national policies, strategies and plans and take immediate action to mainstream gender into national development policies, planning and programmes;
- Ensure women and men's equal access to natural hazard early warning systems;
- Establish gender specific data and statistics on impact of disasters, carry out gender-sensitive vulnerability, risk and capacity assessments and develop gender-sensitive indicators to monitor and measure progress;
- Increase awareness of the public and media on the gender-sensitive vulnerabilities and capacities in disasters and gender-specific needs and concerns in disaster risk reduction and management;
- Support research institutions to study the cost-benefit and efficiency of gender-sensitive policies and programmes in disaster risk reduction, climate change adaptation and poverty reduction;
- Secure the linkage between DRR and climate change adaptation from a gender perspective;
- Support gender-sensitive financial risk-sharing mechanisms, including risk insurance and reinsurance;



- Improve disaster preparedness, response and contingency planning from a gender perspective and make them respond to the specific needs and concerns of men and women;
- Increase women's participation in disaster relief coordination and secure equal access to disaster relief assistance between men and women;
- Build and enhance the capacities of professional communities and pertinent national institutions to enable gender mainstreaming into all development sectors.

2.6 Monitoring and reporting

Governments must report on national progress made in mainstreaming gender in DRR, based on the Global Guidelines on national reporting. This should be in line with the implementation of the Hyogo Framework, and use the biennial Global Platform for Disaster Risk Reduction as a mechanism to monitor and assess the progress made at national level. Technical guidelines in subsequent chapters of this document support this process.

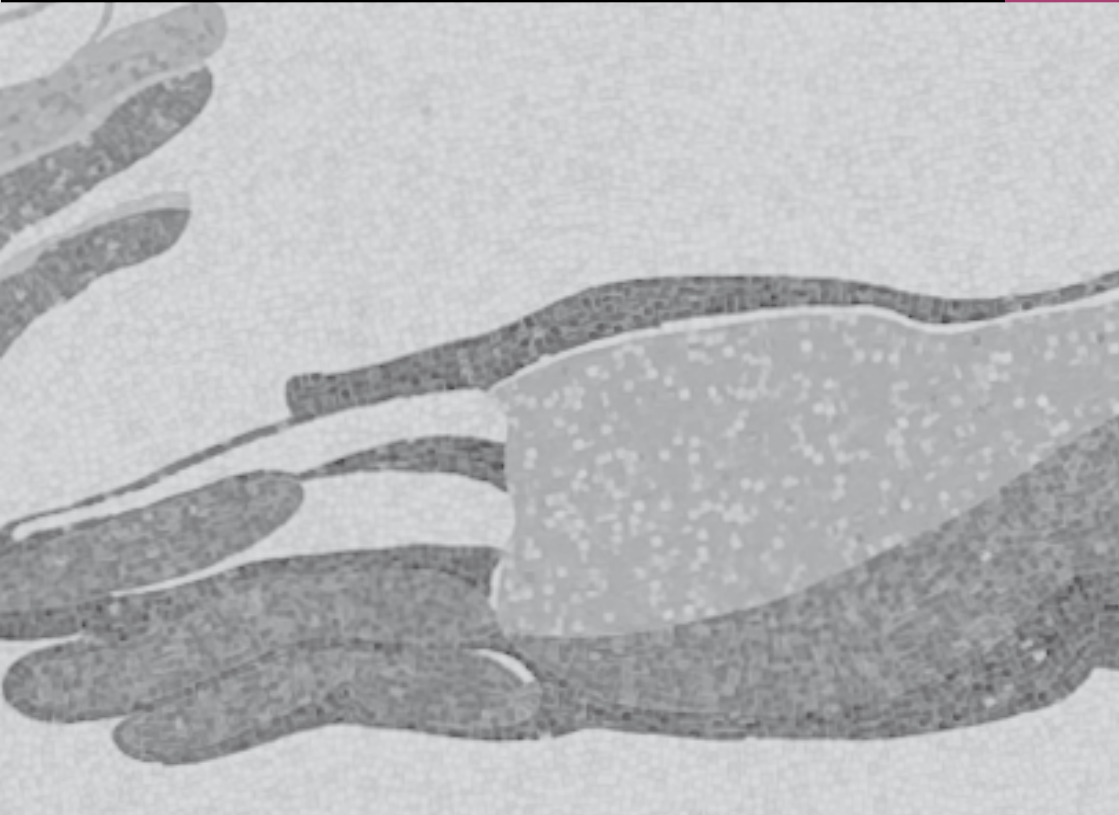


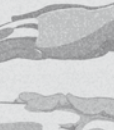
Source: UNISDR. 2004. Living with Risk: A Global Review of Disaster Reduction Initiatives, United Nations.



Chapter 3

A Gender-Sensitive Risk Assessment





A Gender-Sensitive Risk Assessment

3.1 What is disaster risk assessment?

Disaster risk is part of every day life. Awareness of risk is a necessary condition for disaster risk management and reduction. A key aspect of any risk reduction strategy is risk assessment, as mentioned by the Yokohama Strategy: “Risk assessment is a required step for the adoption of adequate and successful disaster reduction policies and measures.”

Risk assessment is a methodology that determines the nature and extent of risk. It analyzes potential hazards and evaluates vulnerabilities that could pose a potential threat to people, property, livelihoods and the environment on which they depend. These assessments include detailed quantitative and qualitative understandings of risk: its physical, social, economic, and environmental factors, and consequences.

Two elements in combination increase or decrease disaster risk: a potentially damaging event or phenomenon (hazard), and the degree of susceptibility of the elements exposed (vulnerability). A natural hazard like a hurricane or earthquake will pose a greater or lesser risk, depending on its own physical intensity, and the vulnerability and capacities of the people exposed to the hazard.

The negative impact of risk therefore depends on the characteristics and intensity of the hazard, and the vulnerability and capacities of the people exposed to the hazard. Gender-based differences and inequalities have a strong negative or positive effect on the vulnerability and capacities of people exposed to hazards. Gender relations will determine the magnitude of the risk as is illustrate by the equation below.

$$\text{Risk} = \text{Hazard} \times \text{Vulnerability by Gender} / \text{Coping Capacity by Gender}$$

This guideline will focus on integrating a gender perspective when calculating vulnerability and coping capacity, as reflected in the above equation.

3.2 Why do we need to make risk assessment gender-sensitive?

Women and men experience, perceive and identify risks differently. Everyone can be equally exposed to a hazard, but women and men have different levels of vulnerability and access to resources, and have therefore developed different coping skills.

Analysis of damage experienced in disasters constitutes a major source of information for vulnerability and capacity identification. A historical analysis of disaster data provides the information to deduce levels of risk based on past experiences.

In this respect, a recent study of 141 countries found that more women than men die from natural hazards, and that this disparity is linked most strongly to women's unequal socioeconomic status.

Where the socioeconomic status of women is high, men and women will die in roughly equal numbers during and after natural hazards, whereas more women than men die (or die at a younger age) where the socioeconomic status of women is low. (Neumayer and Plümper, 2007).



The table below illustrates specific implications of the gendered nature of risk and vulnerability for women.

Gender-based differentiation in disasters and vulnerability: Implications for women⁶

Condition/situation	Specific implications for women	Examples
Direct impacts of sudden onset hazards (floods, cyclones, tsunamis, mud slides etc.)	<p>Women are at greater risk of injury and death due to societal restrictions and gender roles.</p> <p>Swimming is not a skill girls and women are encouraged to learn in some cultures.</p> <p>In some regions women's clothing limits their mobility.</p> <p>In some societies and cultures, women cannot respond to warnings or leave the house without a male companion.</p> <p>Loss of crops and livestock managed by women (with direct detriment to family food security).</p>	<p>More women die than men from disasters. Statistics from past disasters including the Indian Ocean Tsunami and the 1991 Bangladesh Cyclone have showed women overrepresented in mortality rates.</p> <p>Due to recent floods in Nepal caused by the Saptakoshi River, women report that they cannot feed their children because the river took away their cows.</p>

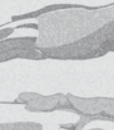
⁶ Based on (Aguilar, 2004; Basnet, 2008; Boender & Thaxton, 2004; Cabrera et al., 2001; Daniell, 2007; Dankelman et al., 2008; Davis et al., 2005; FAO, n.a.; Nanzala, 2008; Neumayer & Plümper, 2007; Oglethorpe & Gelman, 2004; Sillitioe, 2003; Thomalla, Cannon, Huq, Klein, & Schaerer, 2005; Thomas et al., 2004).

Condition/ situation	Specific implications for women	Examples
<p>Impacts of slow onset hazards (drought, desertification, forestation, land degradation etc.)</p>	<p>Increased workload to collect, store, protect, and distribute water for the household – often a responsibility that falls entirely to women.</p> <p>Increased domestic workload to secure food.</p> <p>Increased numbers of women headed households due to men's migration.</p> <p>Women's access to collect food, fodder, wood, and medicinal plants diminishes.</p>	<p>In East Africa, it has been recorded that women walk for over ten kilometers in search of water, and when droughts worsen some even return home empty-handed.</p> <p>In Senegal much arable land is lost due to erosion. As a result, most of the young people and males migrate to the cities to find jobs leaving women in charge of the households.</p> <p>More women than men rely on forest based products to sustain households. Up to 80% of the population of some developing countries rely on traditional medicine as their primary source of health care. Women often have a more specialized knowledge of wild plants used for medicine than men.</p>



Condition/ situation	Specific implications for women	Examples
Lesser access to early warnings and lower ability to respond	<p>Warnings in many cases do not reach women.</p> <p>Women lack adequate awareness how to act upon warnings.</p> <p>Women lack life saving skills such as swimming and climbing.</p> <p>Women tend to take the responsibility of carrying children and elderly to safety.</p>	During the 2006 tsunami, more women died than men – for example in Indonesia and Sri Lanka, male survivors outnumber female survivors by 3 or 4 to 1.
Lower land and other asset ownership	<p>Less control over production and markets.</p> <p>Less ability to adapt to ecological changes, resulting in crop failure.</p> <p>Loss of income.</p>	<p>Fewer than 10% of women farmers in India, Nepal and Thailand own land.</p> <p>In Malawi, the value of assets owned by male-headed households is more than double that of female-headed households. Male-headed households are more likely to own agricultural assets.</p>

Condition/ situation	Specific implications for women	Examples
Lower income	Greater vulnerability in the face of shocks such as food shortages, crop failure, disasters.	<p>Women earn only 70-80% of the earnings of men in both developed and developing countries.</p> <p>Women have less access to secure and better paid jobs in the formal sector. They are mostly occupied in the informal sector, making less money, with less employment security.</p>
Lower levels of education	Hampers women's access to information, and limits their ability to prepare and respond to disasters.	876 million people in the world are illiterate, of whom two-thirds are women.
Lower levels of participation at decision making bodies	Women's capacities are not applied, their needs and concern are not voiced and they are overlooked in policies and programmes.	Women are poorly represented in decision making bodies. Socio-cultural norms and attitudes bar women's participation in decision-making.
Poor access to resources	Women suffer inequitable access to markets, credit, information and relief services resulting in less ability to recover from disaster losses.	<p>Analysis of credit schemes in 5 African countries found that women received less than 10% of the credit given to men.</p> <p>Women face more difficulties in accessing credit, as they do not possess assets for collateral.</p>



As shown in the table above, women face different levels of risk and have different vulnerabilities and coping capacities resulting from gender-based political, cultural and socioeconomic differences and inequalities that persist throughout the world.

The consequences of the assumption that disaster risk is gender neutral are:

- Inaccurate risk identification and risk assessment;
- Inappropriate policy response, prioritization and financing of risk at national and community levels;
- Design of inappropriate interventions to minimize risk and vulnerability and increase coping capacity;
- Ineffective disaster risk reduction interventions and outcome;
- Communities will not necessarily be receptive or supportive of interventions;
- Interventions can create or exacerbate gender inequalities and vulnerabilities.

A gender-sensitive risk identification and assessment will result in more efficient and cost-effective disaster risk reduction interventions.

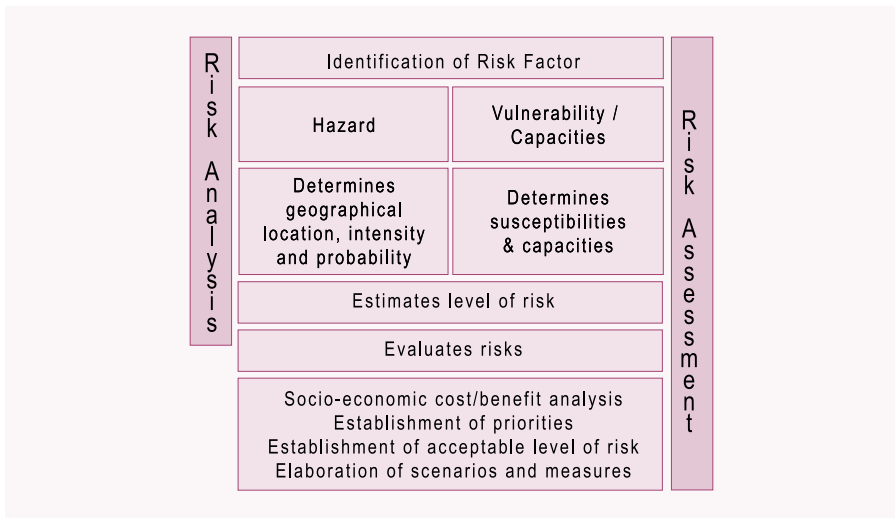
It is important to recognize that women and men also have specific needs and vulnerabilities. A project in the Andaman and Nicobar Islands recognized these differences via a Participatory Vulnerability Analysis that gave women space for awareness raising, sharing experiences, skills-training and forming women's groups. During

this analysis, women expressed their needs and as a result ActionAid supported collective swimming and fishing classes, and training in financial and economic management (UNISDR, 2007).

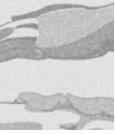
3.3 How do we conduct a gender-sensitive risk assessment?

The risk assessment process has four main steps to quantify the factors in the risk equation. Including:

- Hazard:** Identify the nature of the physical risk, such as the impact’s location, intensity, and probability.
- Vulnerability:** Determine the human vulnerability to the risk, by identifying exposure and weaknesses.
- Capacity:** Identify the capacities and available resources for managing and reducing vulnerability.
- Risk:** Determine acceptable levels of risk.



Source: UNISDR (2004). Living with Risk: A Global Review of Disaster Reduction Initiatives: United Nations.



Mainstreaming a gender perspective in the last three steps increases the accuracy and efficiency of the risk assessment process, avoids re-enforcing the existing gender inequalities, and strengthens communities in the long run.

A. Determining the existence and degree of vulnerabilities and exposure to the threats: Why gender matters

Gender relations shape the four factors of vulnerability: economic, social, physical, and environmental. Women are on average more vulnerable to disasters due to their increased vulnerability across all of these conditions. The intersection of these factors with economic, racial, and other inequalities, create hazardous social conditions that place different groups of women differently at risk when disastrous events unfold (Enarson, 1998).

Physical aspects

Assessing physical vulnerability looks mainly at how location and the built environment can make disaster impact worse. Poor women are usually in the wrong place at the wrong time because they cannot improve the quality of their houses, choose a good location to live, or store food adequately, due to a lack of resources (Cannon, 2002). Poor men are also physically vulnerable to natural hazards but poor women tend to be more vulnerable due to gender-based inequalities, such as fewer opportunities, less access to resources, and more limited mobility than men in the same social class.

Social and cultural aspects

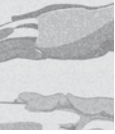
Assessing social vulnerability looks at the wellbeing of individuals, communities, and society. It includes access to basic human rights, education and literacy levels, good governance, organizational systems, values, customs and ideological beliefs. Gender inequalities in these areas make many women more vulnerable to disasters, compare with men:

Women have different social roles

- Differences in socially assigned roles of men and women result in different skills, which can increase women's disaster vulnerability (Neumayer and Plümper, 2007).
- In many countries women's traditional role is to look after and protect children and the elderly as well as their family's domestic property. During seasonal disasters, women's intensive domestic roles mean they have demonstrated excellent risk management and coping skills. However, limits on women's social roles can also often mean that they lack skills needed to survive major catastrophes, such as swimming, climbing, understanding and responding to warning signals, or participating in disaster prevention. (Castro García and Reyes Zúñiga, 2006; Neumayer and Plümper, 2007).
- In many regions only boys learn to swim or climb trees, which reduces women's survival chances in case of flooding or other hydrometeorological events. Most Bengali women have never learned to swim (Genanet, 2004).

Women have less education

- In many parts of the world, women and girls face obstacles to their education, leading to less ability than men to receive information and to understand early warning messages. Disaster impact itself can also be an obstacle to gaining more education.
- Of the 876 million people in the world who are illiterate two-thirds are women.
- Three-fifths of the 115 million children that do not go to school are girls (Lara, 2004).
- After a disaster or other stressful impacts, many girls are forced to drop out of school to help with chores in the house, or to save money (Davis et al., 2005).



Women are less well targeted by public information

- In many cases, women do not receive hazard warnings because their behaviour patterns or information preferences are not taken into account. It is assumed that they will simply absorb information from men in the community.
- In the case of the 1991 Bangladesh Cyclone, warning information was transmitted by men to men in public spaces, meaning women did not receive information directly (Genanet, 2004).
- In Peru, early warning messages about the arrival of El Niño were only transmitted to the fishermen, who were warned that fish abundance was going to be severely affected and that this could have serious economic implications. Women were not alerted since they were not directly involved in fishing – but in fact, they managed the household budgets. Had women known about the onset of El Niño, they would have saved more household funds and budgeted differently to prepare for the event, reducing the eventual economic impact. (Anderson 2002).

Women have poorer health

- Disasters tend to exacerbate existing gender inequalities in health. For example, women already have poorer nutrition, which increases the burden on women coping with hazards that affect food production, such as drought. (Cannon, 2002). Women are more prone to nutritional deficiencies because they have unique nutritional needs (especially when they are pregnant or breastfeeding), and in some cultures are lower on the household food hierarchy. In some regions, women's nutrition is particularly precarious. In South and Southeast Asia 45 to 60 percent of women of reproductive age are underweight and 80 percent of pregnant women have iron

deficiencies (FAO, 2000). There are also more female than male famine victims due to bias against female babies and children (Neumayer and Plümper, 2007).

- Women are also more predisposed to infections, and are more exposed to communicable diseases. For example, in the Lushoto region of Tanzania, plague affects women more than men because men sleep in beds and women and children sleep on the ground where there is a greater risk of coming into contact with rodents infested with plague bearing fleas (Boender and Thaxton, 2004). Also, women are in many countries are in charge of cooking which exposes them to indoor pollution, which causes a total of 1.2 million deaths a year (World Health Organization (WHO), 2007). This increases women's vulnerability to disease that spreads in the aftermath of disasters that have damaged health and sanitation services.
- Studies have reported worse reproductive health for women after disasters. For example in Israel, an increase in delivery rates was reported during the 48 hours following an earthquake, with a particular increase in premature delivery. Also, social taboos about menstruation and norms about appropriate behavior have contributed to health problems for young women in disaster situations. A study reported that during the 1998 flood in Bangladesh there was an increase in perineal rashes and urinary tract infections in adolescent girls because they were not able to properly wash and dry their menstrual rags (WHO, 2005).

Economic aspects

Women's access to assets (physical, financial, human, social and natural capital), largely determines how they will respond to a given hazard. The more assets people have, the less vulnerable they are (Moser and Satterthwaite, 2008); while the greater the erosion of people's assets, the greater their insecurity.



Compared with men, women are poorer, have less access to developing entrepreneurial skills, less ability to access financial resources like credit, savings or pensions, less ability to buy and own land, are paid less if paid at all, and their income is less secure.

- Over 95 per cent of female-headed households in the Asian region are reported by the Asia Development Bank to be below the poverty line.
- An analysis of credit schemes in five African countries found that women received less than 10 per cent of the credit awarded to male smallholders. Inequitable access to markets and credit, means less ability to prepare for or recover from hazardous events.
- In sub-Saharan African countries women are often acknowledged as owners of crops, but not of land. Their rights to use land can often only be asserted through association with men, as mothers, daughters, sisters or wives. (Gray, Kevane 1999).
- Women's income is more likely to be derived from the informal sector, which is often the worst hit by disasters and the least able to recover from the effects of disasters due to low levels of capital accumulation, and weaker access to credit and information.
- A woman from Bangladesh attending the 2007 Climate Change talks in Bali said that when floods arrive only wealthy people have the capacity to move to higher ground or send their livestock to relatives in cities. A typical low-income rural woman, she does not have the resources to move and loses everything, including her livestock. (In the ActionAid, Wedo and UNDP event in Cop 13 in Bali).

Environmental aspects

Women and men use and understand natural resources differently. This results in gender-differentiated impacts when the abundance, accessibility or state of natural resources changes. These changes might limit women's access and control over natural resources (i.e. land, water, cattle, and trees) and reduce their abilities to provide for their families.

Women are particularly affected by drought and desertification

- In many places, women are traditional gatherers of water, and of natural resources from the wild.
- The loss of harvest and livestock due to drought and desertification results in a disproportionate impact on women because in regions where they are the primary agricultural producers. Rural women produce half of the world's food. In developing countries, they are responsible for 60-80% of food production.
- In Southeast Asia, women provide up to 90% of labor for rice cultivation.
- In Egypt, women represent 53% of all agricultural labor.
- In sub-Saharan Africa, women produce up to 80% of basic foodstuffs both for household consumption and for sale (FAO).

B. Identifying gender-based capacities and resources for managing risk: Women as agents of change

Women are more than just victims; they are **powerful agents of change**. They have unique knowledge and skills that are crucial when addressing or managing risks.



Women's traditional natural resource knowledge is important for managing disaster risk and climate change adaptation

Women's indigenous and local knowledge is important for adapting crops and cropping systems in the face of encroaching drought and other potentially disastrous climate variations (FAO, 2001). In Rwanda women are reported to produce more than 600 varieties of beans; and Peruvian Aguaruna women plant more than 60 varieties of manioc (FAO, 1999). Women in Yazd, Iran devised novel methods of agricultural production including food produced in tunnels underground (Dankelman, 2004). Women are adapting their crops to different conditions, taking into account the quality of soil, temperature, inclination, orientation, exposure and disease tolerance.

Women's knowledge of their surroundings and of natural resources can be essential for recovery from the impact of a natural hazard

In Micronesia, working the land has given women a unique knowledge of the island's hydrology, enabling them to find water and build wells during a drought (Anderson, 2002).

Women around the world lead their communities to adapt, prevent and overcome disaster

In Bangladesh, a woman named Sahena has organized a committee of women to be prepared for floods. The committee teaches women how to build portable clay ovens, elevate their houses, and use radios to learn of possible floods or changes in climate. These efforts have saved many lives and empowered women (Oxfam, 2007a). In India, since the Latur Earthquake, women have been supervising, monitoring and undertaking constructions, encouraging repairs and determining if engineers have certified the constructions. They participate in the construction of community buildings and model houses, and conduct education campaigns on earthquake resistant technology (Krishnaraj, 1997).

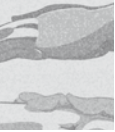
Encouraging women's participation leads to safer communities

In examples such as the Samadhan project to increase flood awareness and preparedness in the southern flood plains of Nepal, community capacity was built by consulting with both women and men, promoting girls' leadership, and designing training so that women could be more involved. 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 (UNISDR, 2008).

Women are proactive in preparedness and response

Women have an important role in taking appropriate and timely action in response to warnings. Research in Northern countries shows women to be more likely to be receive and act upon warnings, and be more likely to be active during emergent community disasters (Fordham, 2001). For example, a study in California found that more women than men responded to the earthquake aftershock warnings by seeking more information to secure households items and developing family emergency plans (Enarson, 2006).

Meanwhile, in the Jhang area of Punjab Province in Pakistan, the division of labour when preparing for floods relies strongly on the full participation of both genders. Men take livestock to protective embankments or distant places, and arrange for their fodder. Women care for the children, take care of household belongings, luggage, valuables and cooking utensils, make provisions for food to support the family during the floods, and preserve seed material for the next cultivation season (Ariyabandu, Wickramasinghe, 2003).



C. Determining acceptable levels of risks: Women's perspective

An acceptable level of risk can be defined as the level of loss a society or community considers acceptable given existing social, economic, political, cultural, technical, and environmental conditions.

To determine these acceptable levels of risk requires:

- Estimating the level of risk;
- Evaluating risks;
- Conducting a socio-economic cost-benefit analysis;
- Establishing priorities.

Women and men need to be equally included in these steps, to reflect all of the community's voices. Risk assessments and risk maps are extremely important to this process:

- They provide the basis for cost-benefit analysis.
- Assessments and risk mapping involve and motivate communities.
- The results help prioritize early warning system needs.
- They guide preparations for response and disaster prevention activities.

To be adequately gender-sensitive, risk mapping needs to:

- Recognize that women and men are differently vulnerable to different hazards and that the impact of a hazard is usually gender-differentiated;
- Include the proportion of men and of women that can be potentially affected by the hazard;

- Have a variable that shows separately where women and men are at high, medium, or low risk;
- Recognize that women and men have different knowledge about their surroundings and different skills to collect data that can improve understanding and risk mapping.

Success and accuracy of socioeconomic and cost-benefit analyses depend on the active involvement of the community at risk in mapping and assessment. It is important to recognize that women and men have different knowledge about their surroundings, and different skills to collect data, all of which can improve risk mapping and understanding.

Using women's knowledge and skills for better risk mapping

In the Dominican Republic and St. Lucia, women's community-based organizations participated in a project to map risk in their communities. Women were trained to conduct interviews, record life histories, develop photo essays and draw risk maps, in order to assess their strengths and the dangers they face. The information they compiled is now used by community leaders and local emergency managers (UNISDR, 2002).

Discovering and assessing women's and men's different vulnerabilities

An ActionAid project in Adaman and Nicobar Islands recognized the differences between men and women's vulnerabilities via their Participatory Vulnerability Analysis. The process gave women space for awareness raising, sharing experiences, skills-training and forming women's groups. This pinpointed women's needs for women's-only swimming and fishing classes, and training in financial and economic management (UNISDR, 2007).



D. A checklist for gender-sensitive risk assessment

A gender-sensitive risk assessment can be achieved if gender issues are considered when planning and conducting the main steps of risk assessment: Identifying the nature, location, intensity, and probability of a threat; determining the existence and degree of vulnerabilities and exposure to risk; identifying the capacities and resources available to address or manage threats, and determining acceptable levels of risk.

This section presents a short and simple checklist with the gender-sensitive elements, actions, and practices required during risk assessment.

A gender-sensitive risk assessment can be achieved if gender issues are considered when planning and carrying out the main steps of risk assessment:

- Identify the nature of the risk;
- Determine the human vulnerability to the risk;
- Identify the capacities and available resources for managing and reducing vulnerability;
- Determine acceptable levels of risk.

This checklist is based on the premise that a baseline gender analysis of social relationships is available for the area under investigation.

Step 1: Identifying risks

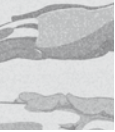
- Identify and implement strategies that are socially and culturally sensitive to the context, to actively engage women and men from the communities in local risk identification;
- Map the available community organizations that can ensure the participation of both men and women, and involve them

in consultation on hazards, including collecting and sharing information, and assessing risk;

- Determine the risks faced by men and women separately, in each region or community;
- Include women's traditional knowledge and perception in the analysis and evaluation of the characteristics of key risks;
- Involve women and men equally in the process to review and update risk data each year, and include information on any new or emerging risks.

Step 2: Determining vulnerabilities

- Ensure the active engagement of men and women in vulnerability analysis (by engaging men and women's organizations, and setting schedules that enable the participation of both men and women);
- Conduct gender analysis for the identification of gender-based inequalities between men and women;
- Map and document the gender-differentiated vulnerabilities (physical, social, economic, cultural, political and environmental);
- Ensure the inclusion of gender-based aspects of age, disability, access to information, mobility, and access to income and other resources that are key determinants of vulnerability;
- Conduct historical analysis of disaster damage experience disaggregated by sex for vulnerability and capacity identification;
- Identify and include women's needs, concerns, and knowledge in the community vulnerability assessments conducted for all relevant natural hazards.



Step 3: Identifying capacities

- Acknowledge and assess women and men's traditional knowledge;
- Ensure that the capacities of all women's groups, organizations or institutions are assessed along with those of men;
- Identify the specific functions, roles and responsibilities carried out by women and men and build these into the analysis;
- Identify the gender specific support mechanisms required for women to get involved in risk management programmes and actions (e.g. mobility and childcare issues);
- Identify mechanisms to enhance the existing capacities of both men and women, and ensure that capacity building programmes incorporate measures to enable women's participation;
- Recognize the equal importance of the capacities and authority of women and men empowered to conduct risk assessment programmes or train other members of the community;
- Actively engage women's organizations to assist with capacity building;
- Identify female role models to advocate for gender-sensitive risk assessment.

Step 4: Determine acceptable levels of risk

- Involve both women and men in the development of hazard and risk maps;
- Collect and analyze gender-differentiated data for assessing acceptable levels of risk;
- Ensure that hazard maps include the gender-differentiated impacts of risk;
- Ensure that hazard maps include gender-differentiated vulnerability and capacity.

References

Aguilar, L. 2004. Climate change and disaster mitigation: Gender makes the difference: IUCN.

Anderson, C. 2002. Gender matters: Implications for climate variability and climate change and for disaster management in the Pacific Islands. Retrieved November 2007, from the World Wide Web: <http://www.gencc.interconnection.org/resources.htm>

Basnet, A. S. 2008. Flooding in Nepal leaves women and children vulnerable. UNICEF. Retrieved, from the World Wide Web: http://www.unicef.org/infobycountry/nepal_45445.html

Blanco Lobo, M., and Duran Vargas, R. 2005. Gestión del riesgo de desastres con equidad de género: Elementos conceptuales y metodológicos Mexico PNUD.

Boender, C., and Thaxton, M. 2004. Reproductive health and environment: Gender makes the difference: IUCN, PRB, Conservation International and TNC.

Briceño, S. 2002. Gender mainstreaming in disaster reduction, Commission on the Status of Women. New York: Secretariat of the International Strategy for Disaster Reduction.

Cabrera, I. R., Zapata Martelo, E., and Vázquez García, V. 2001. Gender, rural households, and biodiversity in native Mexico. *Agriculture and Human Values*, 18, 85-93.

Cannon, T. 2002. Gender and climate hazards in Bangladesh. *Gender and Development*, 10(2), 45-50.

Castro García, C., and Reyes Zúñiga, L. 2006. Desastres naturales y vulnerabilidad de las mujeres en México. México: Instituto Nacional de las Mujeres, PNUD.



Committee on the Status of Pollinators in North America National Research Council. 2007. Status of Pollinators in North America The National Academies Press.

Daniell, H. 2007. Transgene containment by maternal inheritance: Effective or elusive? Proceedings of the National Academy of Sciences, 104(17), 6879-6880.

Dankelman, I. 2004. Women and environment: Weaving the web of life.

Dankelman, I., Alam, K., Bashar Ahmed, W., Diagne Gueye, Y., Fatema, N., and Mensah-Kutin, R. 2008. Gender, climate change and human security lessons from Bangladesh, Ghana and Senegal: WEDO, ABANTU for Development in Ghana, ActionAid Bangladesh and ENDA in Senegal.

Davis, I., Peiris De Costa, K., Alam, K., Ariyabandu, M. M., Bhatt, M. R., Schneider-Sliwa, R., and Balsari, S. 2005. Tsunami, gender, and recovery: Special issue for International Day for Disaster Risk Reduction, South Asia Disasters.

Denton, F. 2002. Climate change vulnerability, impacts, and adaptation: why does gender matter? Gender and Development, 10(2), 10-20.

ECOSOC. 1997. Annual report: United Nations.

Enarson, E. 1998. Through women's eyes: A gendered research agenda for disaster social science. disasters, 22(2), 157-173.

vFAO. Gender and food security: Agriculture. Retrieved February 2008, from the World Wide Web: <http://www.fao.org/Gender/en/agri-e.htm>

FAO. 1999. Women – users, preservers and managers of agrobiodiversity. Rome: Food and Agriculture Organization of the United Nations.

vFAO. 2000. Gender and nutrition. Retrieved, from the World Wide Web: http://www.fao.org/sd/2001/PE0703a_en.htm

- FAO. 2001. Women – users, preservers and managers of agrobiodiversity. Retrieved April 2008, from the World Wide Web: http://www.fao.org/sd/2001/PE1201a_en.htm
- FAO. (n.a.). Gender and food security. Synthesis report of regional documents: Africa, Asia and Pacific, Europe, Near East, Latin America Retrieved June 2008, from the World Wide Web: <http://www.fao.org/docrep/X0198E/X0198E00.htm>
- Gray L, Kevane M 1999. Diminished access, diverted exclusion : Women and land tenure in sub-Saharan Africa. *African studies review* 1999, vol. 42, no2, pp. 15-39,
- Genanet. 2004. Mainstreaming gender into the climate change regime, COP 10 Buenos Aires.
- Hannan, C. 2002. Mainstreaming gender perspectives in environmental management and mitigation of natural disasters, Roundtable Panel and Discussion organized by The United Nations Division for the Advancement of Women and the NGO Committee on the Status of Women in preparation for the 46th Session of the Commission on the Status of Women. United Nations Conference Room 5.
- ILO. 2008. Seminar Igual pago por trabajo de igual valor, Chile.
- Lara, S. 2004. Millennium Development Goals: Gender makes the difference: IUCN.
- Nanzala, E. 2008. Maasai women tackle drought. Panos London Illuminating Voices. Retrieved September 2008, from the World Wide Web: <http://www.panos.org.uk/?lid=23018>
- Nelson, V., Meadows, K., Cannon, T., Morton, J., and Martin, A. 2002. Uncertain predictions, invisible impacts, and the need to mainstream gender in climate change adaptations. *Gender and Development*, 10(2), 51-59.
- Neumayer, E., and Plümper, T. 2007. 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*, 97(3), 551–566.

Oglethorpe, J., and Gelman, N. 2004. HIV/AIDS and Environment: Gender Makes the Difference: IUCN and WWF.

Oxfam. 2007a. Adapting to climate change: What's needed in poor countries, and who should pay.

Oxfam. 2007b. Millennium Development Goals gender quiz. Retrieved, from the World Wide Web: http://www.oxfam.org.uk:80/generationwhy/do_something/campaigns/healthandeducation/quiz/index.htm

Sillitoe, P. 2003. The Gender of crops in the Papua Highlands. In P. Howard (Ed.), *Women and Gender Relations in Biodiversity Management Conservation*. Canada: IDRC.

Social Watch. 2007. Gender equity index 2007.

Social Watch. 2008. Gender equity index 2008.

Thomalla, F., Cannon, T., Huq, S., Klein, R. J. T., and Schaerer, C. 2005. Mainstreaming adaptation to climate change in coastal Bangladesh by building civil society alliances. Retrieved August 2008, from the World Wide Web: http://www.pik-potsdam.de/research/research-domains/transdisciplinary-concepts-and-methods/favaia/pubs/thomalla_etal_2005.pdf

Thomas, C. D., Cameron, A., Green, R. E., Bakkenes, M., Beaumont, L. J., Collingham, Y., Erasmus, B. F. N., Ferreira de Siqueira, M., Grainger, A., Hannah, L., Hughes, L., Huntley, B., van Jaarsveld, A. S., Midgley, G. F., Miles, L., Ortega-Huerta, M. A., Peterson, A. T., Phillips, O. L., and Williams, S. E. 2004. Extinction risk from climate change. *Nature*, 427, 145–148.

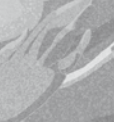
UNISDR. 2002. *Women, disaster reduction and sustainable development*.

UNISDR. 2004. *Living with risk: A global review of disaster reduction initiatives*. United Nations.

UNISDR. 2008. Gender perspectives: Integrating disaster risk reduction into climate change adaptation.

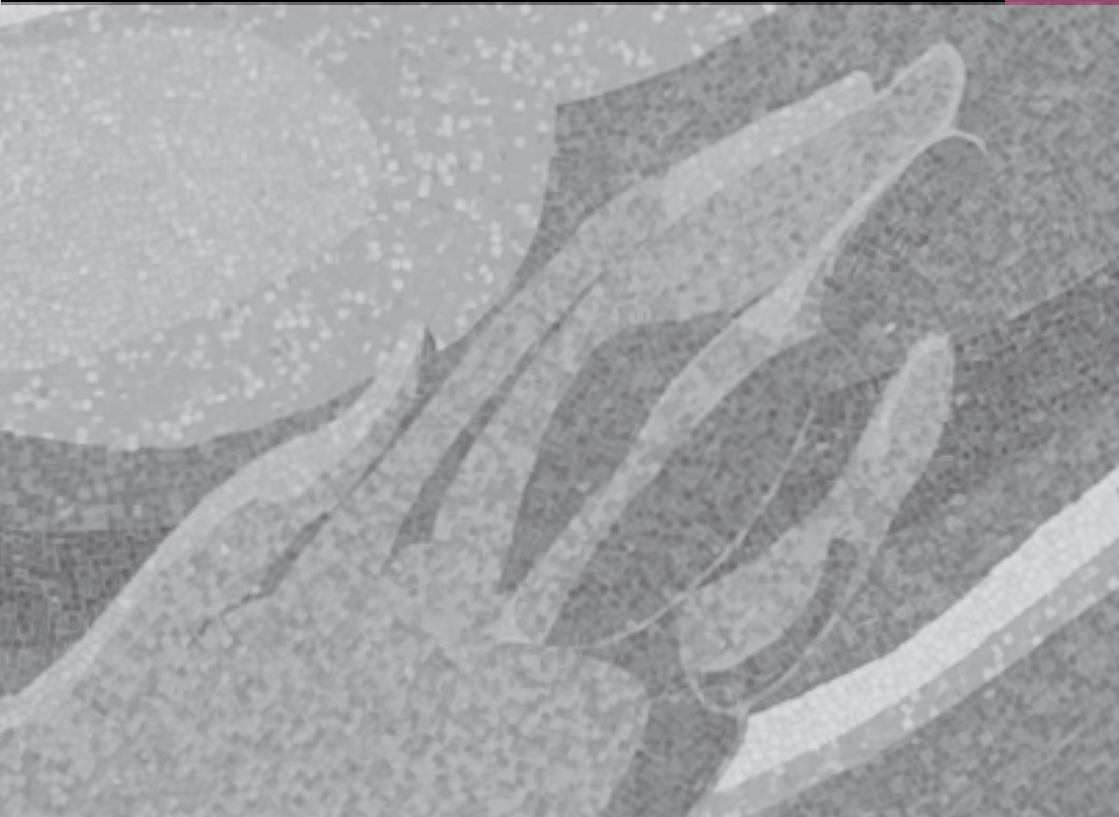
World Health Organization (WHO). 2005. Factsheet: Gender and health in natural disasters.

World Health Organization (WHO). 2007. Indoor air pollution takes heavy toll on health. Retrieved August 2008, from the World Wide Web: <http://www.who.int/mediacentre/news/notes/2007/np20/en/index.html>



Chapter 4

Gender-Sensitive Early Warning Systems





Gender-Sensitive Early Warning Systems

If an early warning system had been in place when the tsunami of 26 December 2004 struck the Indian Ocean region, many thousands of lives could have been saved. That catastrophe was a wake-up call for governments and many others about the role early warning can play in avoiding and reducing the human and physical impacts of natural hazards.

*Kofi Annan
The Global Survey of Early Warning Systems, 2006*

4.1 What is early warning?

A complete and effective early warning system is not just about sounding an alarm. Early warning systems must comprise four elements that span a process: from understanding risks through to the preparedness of people to respond to warnings. Failure in any one part can mean failure of the whole system.

Early warning is a crucial element of disaster risk reduction (DRR). Since the Indian Ocean Tsunami, the importance of early warning has been recognized at the highest level in the UN System. In 2005, Secretary-General Kofi Annan called for a global survey of early warning system capacities and gaps in order to establish a “worldwide early warning system for all natural hazards building on existing national and regional capacity.”

In January 2005, the World Conference on Disaster Reduction adopted the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters. This included clear references to the importance of early warning, and encouraged the development of “early warning systems that are people-centred, in particular systems whose warnings are timely and understandable to those at risk [...] including guidance on how to act upon warnings[...]” (para. 17, ii.d.9).

For early warning to work, it must be timely and effective information provided through authorized institutions, that allows individuals exposed to a hazard to avoid or reduce their risk and prepare for effective response (UNISDR, 2008).

Early warning systems must be people-centred to be effective, and must integrate four elements:

- a) Risk knowledge;
- b) A monitoring and warning service;
- c) Dissemination of meaningful warnings to those at risk;
- d) Response capability.

These elements are derived from the Hyogo Framework, in particular priority 2 which refers to improving risk information and early warning, and priority 5 which refers to strengthening preparedness for response. In 2006, the Third International Conference on Early Warning in Bonn, Germany resulted in integration of all the Hyogo Framework elements of early warning into the four key components listed above. These components are summarised in the graphic below.

Hazard identification and risk assessment are important components of an effective early warning system and comprise activities detailed in Hyogo Framework priority 2. Gender-sensitive hazard identification

The four elements of people-centred early warning systems

These four elements of people-centred early warning systems are contained within the Hyogo Framework in different priority areas of action. Please refer also to Words into Action (UNISDR 2007) for detailed recommendations on implementing the Hyogo Framework. This will ensure that supporting activities



complementary to the Early Warning process for any particular hazard are also in place. The table below highlights core activities listed within the five priorities of the Hyogo Framework and the Key Indicators related to them. (see Annex of this chapter)

and risk assessment are addressed in chapter 3 of this publication. In this guideline we suggest ways to support a gender-sensitive approach to the remaining three elements of an early warning system:

- a) Monitoring and warning services;
- b) Dissemination of meaningful warnings to those at risk;
- c) Response capability.

These guidelines are not hazard-specific although all activities must be implemented for each hazard faced by a community within each sector that is likely to be impacted.

4.2 Why do we need gender-sensitive early warning systems?

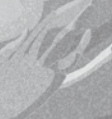
This section aims to demonstrate the importance of gender-sensitive early warning, and show why early warning systems that present themselves as gender neutral cannot be effective. One reason is that men and women access, process, interpret and respond to information in different ways, due to the social and cultural organization of gender relations and the gender division of labour. The reasons put forward in the risk assessment guideline also apply and are expanded on here for the components of an early warning system.

The consequences of a gender-neutral early warning system are brought home by statistics from many past disasters around the world. In 1991 the death toll from the Bangladesh Cyclone was five times higher for women than men. Part of the reason was that early warning information about the cyclone and the floods was transmitted by men to men in public spaces, rarely reaching women directly (Genanet, 2004).

This is but one example of why early warning systems that are assumed to be 'gender neutral' are not effective in reaching women adequately. Examples like this where early warning systems do not reach women, inhibit and limit mitigation and preparedness measures and ultimately cost lives, prove the importance of mainstreaming a gender perspective into the whole process of early warning. We highlight the reasons why a gender-sensitive approach enhances the remaining three elements of early warning systems in the list below:

A. Monitoring and warning services

It is important to ensure continuous monitoring of hazard parameters and precursors using local and learned knowledge, and the abilities of women and men in the community, for generating accurate warnings in a timely fashion.



Involvement of women and men could help identify the events earlier, which will reduce the risks. For example, after Hurricane Mitch in 1998, La Masica in Honduras reported (surprisingly) no deaths. This was in part because a disaster agency had provided gender-sensitive community education on early warning systems and hazard management six months earlier. Women were in charge of the early warning system and were continuously monitoring the area. Before Hurricane Mitch struck, they alerted the municipality to evacuate the area promptly (Buvini, 1999).

Knowledge of the surroundings and natural resources can prove essential when monitoring hazards. Women and men have a different knowledge of their surroundings because they use different resources and are in charge of different activities. For example, In Sri Lanka, women in Nawalapitiya township, were more likely to witness early signs of landslides or anticipate rockfalls that threatened the community, since they were at home or working close to home while the men worked elsewhere during the daytime. Women, along with men, formed neighbourhood groups during the rainy season to watch for those early signs (Ariyabandu, Wickramasinghe, 2003).

B. Dissemination and information

The lack of a gender perspective in dissemination and communication is proven to exacerbate the negative impacts that a disaster can have. For example, in Peru, early warning messages about the arrival of El Niño were only transmitted to the fishermen: they were warned that the fish abundance was going to be severely affected and that this could have serious economic implications. Women were not alerted since they were not directly involved in fishing. Unfortunately, those responsible for developing the warning messages overlooked the fact that in those communities women were the ones in charge of the household budgets. By not considering women as important targets in the information dissemination process, communities were not able to develop strategies

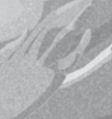
to save money before the El Niño period, resulting in higher poverty and harsh economic conditions (Briceño, 2002).

Gender issues affect processing and disseminating understandable warning messages to the general population. Women and men within their social and cultural context can prefer to access information differently, which can affect the manner, medium and time of day or night it is best to disseminate early warning messages. For example, a study found that women in South Africa prefer to get information from the extension officer or school, and men prefer to listen to the radio. The women interviewed stated that due to their domestic responsibilities they were less able to schedule time to listen to the radio and mentioned that receiving the information on site allowed them to ask questions and engage in constructive discussions (UNISDR, 2002).

Gender-sensitive dissemination and communication systems increase the benefits that a community obtains from these types of initiatives. Women's involvement increases the number of people informed because they are connected to different social networks and often have specific and different communication strategies that take into consideration women's practices, concerns and needs. This has been demonstrated for example in Brazil where women have made a difference when it comes to information distribution, organization, and mobilization. An NGO in Brazil named CEMINA started a local radio program for women in 1990 and due to its success the network was expanded to include around 350 women's radio programs. This network has played a critical role in mobilizing women and fostering their participation in local sustainable initiatives (Fordham, 2001).

C. Response capability

Women around the world have played a key role in their communities and have developed various capacities to adapt, prevent and mitigate impact of disasters. Women play an important role in taking



appropriate and timely action in response to the warnings. Research in Northern countries shows women are more likely to receive and act upon warnings, and be more likely to be active during emergent community disasters (Fordham, 2001). For example, a study in California found that more women than men responded to the earthquake aftershock warnings by seeking more information to secure household items and developing family emergency plans (Enarson, 2006).

Women are usually responsible for children and the elderly; therefore the demands on them immediately prior to and during a disaster are very different from that of men's. This is also relevant to girl and boy children. These different demands are especially important to consider in the case of rapid onset disasters, when the time between receiving a warning and responding can be very limited. A World Bank report 'Mainstreaming Gender into Disaster Recovery and Reconstruction' (2007) refers to an example of a manager in a state agency who immediately brought trailers and staff to provide on-site childcare for her predominantly female staff that were heavily impacted by a flood but who were also needed at work to assist others. This manager's on-the-spot decision illustrates how routine contingency planning to provide childcare to women involved in early warning and emergency response would help yet more.

The example above also illustrates that knowledge, acceptance and respect for gender differences and strong social norms, can improve response as well as the planning and administration of relief items. Gender concerns are often held ransom to what is aptly called the 'tyranny of the urgent' in the immediate aftermath of a disaster. Inclusion of the positive resources of women as well as men in planning a community response to either a slow onset or rapid onset disaster is crucial. Gender-sensitive planning and preparation

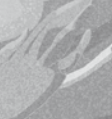
for early warning or response to a disaster can reduce mortality and morbidity rates as well as facilitate equitable distribution of emergency relief, improve safety conditions in relief shelters, and improve mitigation. This will help reduce the chance of response and relief efforts themselves having negative effects. (World Bank 2007).

Appropriate response is based on disaster knowledge dissemination, which would include information and training. In many societies women have less access to information than men. Education and training to support appropriate and timely response to any early warning should expressly address this and other related concerns. If differences in literacy, method, venue and time of learning and knowledge of legal rights and entitlements are considered it will ensure that men and women, girls and boys know better how to respond to an early warning for slow or rapid onset disasters. This process can often be initiated in the aftermath of a disaster, leading to better early warning responses in the future.

4.3 How do we build a gender-sensitive early warning system?

Building gender-sensitive early warning systems requires mainstreaming gender into early warning governance and institutional arrangements as a cross-cutting issue.

Knowledge and consensus about key risks faced at community, local and national level are required for continuous hazard monitoring. This is vital for timely and accurate warnings, which are in turn vital for appropriate response. Warning services for the different hazards should be coordinated to benefit from any existing shared institutional, procedural and communication networks. Women and



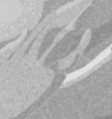
men's local and learned knowledge about risks that their community faces must be accessed and used when designing and implementing a monitoring network and an early warning system.

This section includes four checklists. The first is a summary checklist of how gender-sensitive early warning fits into Hyogo Framework priority 1 actions that are the responsibility of governments. Then, three checklists provide more detail on how to implement the three elements of gender-sensitive early warning systems addressed in this chapter, ie. monitoring and warning services, dissemination and information, and response capability.

The aim of the checklists is to build and support institutional, legislative and policy frameworks that support the implementation of gender-sensitive early warning systems. There are references within these lists to priorities also in the Policy Guideline (chapter 2) but special emphasis is placed here on best practice in the development and implementation of early warning systems. The checklist of activities also correlates closely to the core tasks identified for Hyogo Framework priority 1 activities in *Words into Action* but are tailored specifically to early warning. The activities themselves reflect priorities identified at the Third International Conference in Bonn 2006.

How gender-sensitive early warning fits into Hyogo Framework priority 1

Core tasks for implementing Hyogo Framework priority 1	Checklist for governance and institutional arrangements with gender-sensitive actions on early warning
Engage in multi-stakeholder dialogue to establish foundations	<p><i>Early warning secured as a long term national and local priority</i></p> <ul style="list-style-type: none"> • Efficiency and economic benefits of mainstreaming gender in early warning highlighted to senior government and political leaders. • Examples and case studies of successful gender-sensitive early warning systems promoted to senior government and political leaders. • Identify women involved in early warning as role models to advocate for gender-sensitive early warning systems and promote its benefits. • Gender-sensitive early warning integrated into national economic planning.
Create or strengthen mechanisms for systematic coordination	<p><i>Legal and policy frameworks to support early warning established</i></p> <ul style="list-style-type: none"> • Mainstream gender into national legislation or policies in order to provide an institutional and legal basis for implementing gender-sensitive early warning systems. • Develop a gender strategy or plan of action for the national agency in charge of the coordination of early warning.



Core tasks for implementing Hyogo Framework priority 1	Checklist for governance and institutional arrangements with gender-sensitive actions on early warning
	<ul style="list-style-type: none">• Political or senior government officials have awareness of gender issues and their importance.• Gender-sensitive early warning integrated into disaster reduction and development policies.• Monitoring and enforcement regime in place to support gender policies and legislation.
Assess and develop institutional basis	<p><i>Institutional capacities for early warning assessed and enhanced</i></p> <ul style="list-style-type: none">• Use of gender indicators designed for early warning.• Capacities of all women's groups, organizations or institutions involved assessed.• Non-governmental women's organizations engaged and encouraged to contribute to capacity building.
Prioritize and allocate appropriate resources	<p><i>Financial resources secured for early warning</i></p> <ul style="list-style-type: none">• Government funding mechanism to include women and gender issues in early warning and disaster preparedness developed and institutionalized.

The following tables detail the checklists that can be used to support gender-sensitive early warning in each of the three key elements of early warning systems, noting again that risk assessment is addressed in a separate chapter.

A. Monitoring and warning services: Develop hazard and early warning services

Warning services for the different hazards should be coordinated to benefit from any existing shared institutional, procedural and communication networks. Differences in the knowledge base, roles, responsibilities, access to information, preferred medium of communication and opportunities for learning, social constraints and cultural practices that impact men and women, and girls and boys differently need to be considered to ensure that as many community members as possible receive, understand and are in a position to respond as best able to early warnings.

In summary, the aim of this process is two-fold:

1. Establish a gender-sensitive systematic, standardized process to collect, assess and share data, maps and trends on hazards and vulnerability;
2. Establish an effective hazard monitoring and warning service that considers the abilities and needs of women and men.

The following are the minimum needed to support gender-sensitive data collection and administration, identification and analysis of hazards and evaluation of vulnerability of all age and gender groups in a community.

Risk knowledge

Core tasks	actions
Organizational arrangements established	<ul style="list-style-type: none"> • Organization-wide task force on gender, led by senior staff with the power to implement change, assigned to coordinate hazard identification, vulnerability and risk assessment. • Gender mainstreamed in the legislation or government policy mandating the preparation of hazard and vulnerability maps for all communities in place. • Women and women's organizations involved in the development of national standards for the systematic collection, sharing and assessment of hazard and vulnerability data development. • Equal opportunity for men and women to be part of the scientific and technical expert groups assessing and reviewing the accuracy of risk data and information developed. • Strategy to actively engage women and men from the communities in local hazard and vulnerability analyses. • Women and men equally involved in the process to review and update risk data each year, and include information on any new or emerging vulnerabilities and hazards established.
Natural hazards identified	<ul style="list-style-type: none"> • Women's traditional knowledge and perceptions included in the analysis and evaluation of the characteristics of key natural hazards. • Women and men involved equally in the development of hazard and risk maps.

	<ul style="list-style-type: none"> • Risk maps reflect gender differentiated impacts of the risk. • Hazard maps include gender differentiated vulnerability data.
Community vulnerability analyzed	<ul style="list-style-type: none"> • Women's needs, concerns, and knowledge included in the community vulnerability assessments conducted for all relevant natural hazards.
Risks assessed	<ul style="list-style-type: none"> • Assessment of gender specific hazards and vulnerabilities to determine the risks faced by men and women in each region or community. • Gender differentiated results of risk assessment integrated into local risk management plans and warning messages.
Information stored and accessible	<ul style="list-style-type: none"> • Central 'library' or GIS databases with gender differentiated data established to store all disaster and hazard risk information. • Gender differentiated hazard and vulnerability data available to the government, the public, and the international community.

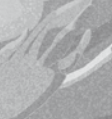
Monitoring and warning services

Core tasks	Actions
<p>Institutional mechanisms established</p>	<ul style="list-style-type: none"> • Gender perspectives mainstreamed in all the processes, roles and responsibilities of all the organizations generating and issuing warnings.
<p>Monitoring systems developed</p>	<ul style="list-style-type: none"> • Equal involvement of women and men in the committee that sets up technical warning systems for all hazards. • System established to verify that warnings have reached both women and men equally. • Documentation of the hazards women consider relevant. • Gender-differentiated data and analysis from regional networks, adjacent territories, and international sources accessible.
<p>Forecasting and warning services established</p>	<ul style="list-style-type: none"> • Data and warning products that can be understood by both women and men. • Women and men trained how to forecast hazards using different resources. • Women and men's traditional knowledge considered equally in forecasting hazards.

B. Dissemination and information: Communicate early warning and risk information

Gender-sensitive communication and dissemination systems ensure that women and men are warned in advance of impending natural hazards, and facilitate national and regional coordination and information exchange.

Dissemination and information	
Core tasks	Actions
Organizational and decision-making processes institutionalized	<p>Warning dissemination chain ensures that both women and men receive information.</p> <p>Women and men are both part of volunteer network trained and empowered to receive and widely disseminate hazard warnings to remote households and communities.</p>
Effective communication systems and equipment installed	<p>Communication and dissemination systems are tailored to the needs and social behaviour of both women and men.</p> <p>Warning communication technology is accessible and reaches women and men equally.</p> <p>Gender experts or women's groups are consulted to assist with identification and procurement of appropriate equipment or mechanisms.</p> <p>Multiple communication mediums for warning dissemination are used, encompassing those used or preferred by women.</p>

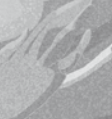


	<p>Consistent warning dissemination and communication systems reach women and men equally.</p> <p>Two-way and interactive communication system allows for verification, so it can be determined that women and men have received warnings.</p> <p>Women and men trained and employed to maintain equipment and upgrade programmes of back-up systems in the event of failure.</p>
<p>Warning messages recognized and understood</p>	<p>Warning alerts and messages take into consideration the behaviour patterns of women and men.</p> <p>Messages incorporate an understanding of the values, concerns, and interests of women and men.</p> <p>Warning alerts can be understood by both women and men.</p> <p>Studies should be undertaken to determine how women and men access and interpret early warning messages.</p> <p>Gender-sensitive lessons learnt should be incorporated into message formats and dissemination processes.</p>

C. Response capability: Build national and community response capability

The checklist below aims to strengthen the ability of women and men to respond to disasters through enhanced education of natural hazard risks, community preparation, creation of opportunities to get involved, and disaster preparedness.

Response capability	
Core tasks	Actions
Warnings respected	<p>Warnings distributed by credible sources reach both women and men.</p> <p>Gender-sensitive strategies are developed to build credibility and trust in warning development.</p>
Disaster preparedness and response plans established	<p>Disaster preparedness and response plans are gender-sensitive.</p> <p>Hazard and risk maps include gender differentiated variables for vulnerability and risks, and are used to develop emergency preparedness and response plans.</p> <p>Gender-sensitive up-to-date emergency preparedness and response plans developed and put into practice by women and men.</p> <p>Gender-sensitive up-to-date emergency preparedness and response plans are disseminated to women and men.</p> <p>Gender-sensitive strategies are implemented to maintain preparedness for recurrent hazard events.</p>



	<p>Feedback from regular tests and drills are undertaken to test if the early warning and dissemination process and responses reach women and men equally.</p>
<p>Community response capacity assessed and strengthened</p>	<p>Women's ability to respond effectively to early warnings are assessed.</p> <p>Gender-differentiated response to previous disasters analyzed and gender-sensitive lessons learned are incorporated into future capacity building strategies.</p> <p>Women-focused organizations are engaged to assist with capacity building.</p> <p>Gender-sensitive community and volunteer education and training programs are developed and implemented.</p>
<p>Public awareness and education enhanced</p>	<p>Simple information on hazards, vulnerabilities, risks, and how to reduce impacts are disseminated equally to vulnerable women and men and in a language they can understand.</p> <p>Women and men are educated on how warnings will be disseminated, which sources are reliable and how to respond to different types of hazards after an early warning message is received.</p> <p>Women and men are equally trained to recognize simple hydro-meteorological and geophysical hazard signs to allow immediate response.</p> <p>Gender-sensitive ongoing public awareness and education should be built into school curricula from primary schools to university.</p>

Media that women prefer is used to improve public awareness.

Public awareness and education campaigns are tailored to the specific needs and concerns of women and men.

Public awareness strategies and programs are evaluated at least once per year to determine if women are effectively involved in the response process.



References

Acar, F., and Ege, G. 2001. Women's human rights in disaster contexts: How can CEDAW help?, United Nations Division for the Advancement of Women (DAW) International Strategy for Disaster Reduction (ISDR) Expert Group Meeting on Environmental management and the mitigation of natural disasters: gender perspective. Ankara.

Aguilar, L. (in press). Establishing the linkages between gender and climate change: State of the world.

Anderson, C. 2002. Gender matters: Implications for climate variability and climate change and for disaster management in the Pacific Islands. Retrieved November 2007, from the World Wide Web: <http://www.gencc.interconnection.org/resources.htm>

Ariyabandu M., Wickramasinghe M. 2003. Gender dimensions in disaster management, a guide for South Asia, Intermediate Technology Development Group, Duryog Nivaran, Colombo.

Briceño, S. 2002. Gender mainstreaming in disaster reduction, Commission on the Status of Women. New York: Secretariat of the International Strategy for Disaster Reduction.

Buvinić, M. 1999. Hurricane Mitch: Women's needs and contributions. Inter-American Development Bank, Sustainable Development Department.

Castro García, C., and Reyes Zúñiga, L. 2006. Desastres naturales y vulnerabilidad de las mujeres en México. México: Instituto Nacional de las Mujeres, PNUD.

Enarson, E. 2006. SWS Fact Sheet: Women and disaster.

FAO. 2008. Women and plant genetic resources for food and agriculture. Retrieved February 2008, from the World Wide Web: <http://www.fao.org/FOCUS/E/96/06/03-e.htm#homegarden>

Fordham, M. 2001. Challenging boundaries: A gender perspective on early warning in disaster and environmental management, United Nations Division for the Advancement of Women (DAW) International Strategy for Disaster Reduction (ISDR) Expert Group Meeting on “Environmental management and the mitigation of natural disasters: a gender perspective”. Ankara.

Genanet. 2004. Mainstreaming gender into the climate change regime, COP 10 Buenos Aires.

Hannan, C. 2002. Mainstreaming gender perspectives in environmental management and mitigation of natural disasters, Roundtable Panel and Discussion organized by The United Nations Division for the Advancement of Women and the NGO Committee on the Status of Women in preparation for the 46th Session of the Commission on the Status of Women. United Nations Conference Room 5.

Krishnaraj, M. 1997. Gender issues in disaster management: The Latur earthquake. *Development, Gender, Technology and*, 1, 395-411.

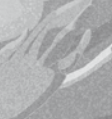
Lambrou, Y., and Laub, R. 2004. Gender perspectives on the conventions on biodiversity, climate change and desertification. FAO.

Lara, S. 2004a. Millennium Development Goals: Gender makes the difference. IUCN.

Lara, S. 2004b. Poverty and environment: Gender makes the difference. IUCN.

Moser, C., and Satterthwaite, D. 2008. Pre-poor climate change adaptation in the urban centres of low-and middle-income countries, Workshop on Social Dimension of Climate Change. Washington D.C.: World Bank.

Neumayer, E., and Plümper, T. 2007. 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*, 97(3), 551–566.



Oxfam 2007. Adapting to climate change: What's needed in poor countries, and who should pay.

UNISDR. 2002. Women, disaster reduction and sustainable development.

UNISDR. 2005. Hyogo framework for action

UNISDR. 2007. Words into action

UNISDR. 2007. Gender perspective: Working together for disaster risk reduction.

UNISDR. 2006. Global survey of early warning systems.

UNISDR and Federal Foreign Office. 2006. Developing early warning systems: A checklist, EWC III

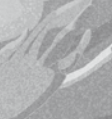
Third International Conference on Early Warning. Bonn, Germany. <http://www.unisdr.org/ppew/info-resources/ewc3/checklist/English.pdf>

Annex Chapter 4

Priority areas	Core tasks for DRR	Key indicators
HFA 1. Making disaster risk a national and local priority	Engage in multi-stakeholder dialogue to establish foundations.	Legal framework exists with explicit responsibilities defined for all levels.
	Create or strengthen mechanisms for systematic coordination.	National multi-stakeholder platform.
	Assess and develop institutional basis.	National policy framework exists that requires plans and activities at all levels.
	Prioritize and allocate appropriate resources.	Dedicated adequate resources to implement plans at all levels.
HFA 2. Improving risk information and early warning	Establish an initiative for country wide risk assessments.	National risk assessment based on hazards and vulnerability info/ data and include risk assessment for key sectors.
	Review availability of risk related info and capacities for data collection and use.	Systems are in place to monitor, archive and disseminate data on hazards and vulnerability.

	Assess capacities and strengthen early warning.	Early warning in place for all major hazards.
	Develop communication and dissemination mechanisms.	Early warnings reach and serve people at community level.
HFA 3. Building a culture of safety and resilience	Develop a programme to raise awareness.	National awareness strategy exists that reaches all communities and people of all education.
	Include DRR in education system and research community.	School curricula at all levels includes DRR elements and instructors are trained in DRR at all levels.
	Develop DRR training for key sectors.	
	Enhance the compilation, dissemination and use of DRR info.	
HFA 4. Reducing the risks in key sectors	Environment: Incorporate DRR in environmental and natural resource management.	Environmental protection and natural resource management and climate change policies include DRR elements.
	Social needs: Establish mechanisms for increased resilience of poor and most vulnerable	Specific policies and plans are implemented to reduce vulnerability of impoverished groups.

	Physical planning: Establish measures to incorporate DRR in urban and land use planning.	Land-use development zoning, plans and building codes exist, include DRR elements and are strongly enforced.
	Structures: Strengthen mechanisms for improved building safety and protection of critical facilities.	Long term national programme to protect schools, health facilities and critical infrastructure from common natural hazards.
	Stimulate DRR activities in production and service sector.	Procedure in place to assess the DRR implications of major infrastructure project proposals.
	Financial/economic instruments: Create opportunities for private sector involvement in DRR.	
	Disaster recovery: Develop a recovery planning process that includes DRR.	



<p>HFA 5.</p> <p>Strengthen preparedness for response</p>	<p>Develop a common understanding and activities to support preparedness.</p>	<p>Disaster preparedness and contingency plans function at all levels with regular training drills and rehearsals to test and develop DRR.</p>
	<p>Assess preparedness, capacities and readiness.</p>	<p>Independent assessment done, responsibilities for implementing recommendations, resources schedule assigned.</p>
	<p>Strengthen planning and programming for response, recovery and rehabilitation.</p>	<p>All organizations, personnel and volunteers responsible for maintaining preparedness are equipped and trained for effective disaster preparedness and response.</p>
		<p>Financial and contingency mechanisms are in place to support effective response and recovery.</p> <p>Procedures are in place to document experience during hazard events and disasters and to undertake post-event reviews.</p>

Chapter 5

Gender-Sensitive Indicators for Disaster Risk Reduction





Gender-Sensitive Indicators for Disaster Risk Reduction

Do not think, however, that our nation needs only men to serve it. The valuable services rendered by women are recounted throughout history. And from their examples, we learn that we must all contribute toward a development of our nation.

Queen Soraya, Afghanistan, 1926

Major disasters over the past decade, such as the Indian Ocean Tsunami of December 2004, and Hurricanes Mitch and Katrina in the Gulf of Mexico that devastated the Caribbean and New Orleans have shown that gender-blind disaster preparedness and response can worsen impact of disasters on women, girls and the marginalized, diminishing their resilience to future disasters rather than promoting it.

Dr A Singh from UNESCO stated in his opening speech at the International Conference on Gender and Disaster Risk Reduction (Beijing, 2009) that “adding gender to our perspective forces us to take a wider view of what constitutes disaster. When the gendered effects of disasters are taken into account, disasters are no longer simply physical in nature; they also become social in nature.” As he succinctly stated “disasters do not discriminate against people; humans most certainly do.”

There are as yet limited tools that support gender-sensitive disaster risk reduction. This inhibits learning from past experience, and adapting existing practice. One way to monitor whether the existing

social inequalities between women and men, girls and boys are being exacerbated by disasters, or transformed through improved risk reduction initiatives, is to establish and agree on indicators that will measure and reflect this.

Indicators are designed to be meaningful and realistic measures of change(s) overtime. They bring to light issues and trends not otherwise easily observed or evident. They allow for the impact of policy and programmes to be evaluated and for improvements to be made in all phases. Therefore indicators can be a measure of the extent to which society is realizing gender equality.

Indicators can reveal positive or negative trends in the society. In the case of positive indicators, an increase in their value would indicate progress toward equity in relations between women and men; for example, an increase in the quantity of property deeds held by women or by both members of a couple. An increase in the value of negative indicators points to a setback in achieving equality between women and men; for example, an increase in graduate unemployment among women compared with men.

Using indicators will make it easier to work out how to include women's knowledge, experiences, and perspectives in planning and implementing the Hyogo Framework for Action. Monitoring and evaluation of indicators will illustrate the efficacy of a gender-sensitive approach and to what extent a community or society is upholding "the dignity and worth of the human person, in the equal rights of men and women and of nations large and small" as stated in the United Nations Charter preamble.

This guideline provides a background to indicators specifically for use in the development of gender-sensitive policy, risk assessment and early warning systems. The principles can be used to develop indicators for other elements of the Hyogo Framework.



5.1 What are indicators?

Indicators are widely understood to be quantitative measures, e.g. how many men and women own property in a particular village. They can however be designed to reflect subjective aspects of society e.g. how free women feel to speak in a public meeting. Indicators can be “measurements, numbers, facts, opinions or perceptions that signal specific situations or conditions.” (Escalante et al, 2000).

Examples of Indicators

Measurement:	The amount of rainfall on any one day in any one place
Number:	Number of women dead due to a flood
Fact:	The existence of a law regarding social equality for women and men
Opinion/Perception:	Perceptions of women living in the flood zone about whether there has been any improvement in their situation since the equality law was passed

5.2 Why are indicators important?

We use indicators to measure, monitor and evaluate our progress towards a desired outcome. They can support us to review and revise an approach if it is not working. For example, it is important to understand the relations between women and men as well as their different roles and responsibilities in a community when we design an early warning system. We need to know whether the early warning system does effectively warn all citizens of all ages about an impending threat or not.

If not, we need to understand why not, and take the necessary steps to remedy the situation. We also need to know as much as possible about resources available to assist at household and community level in the immediate response activities following a warning or a rapid onset disaster.

Indicators will reflect four different aspects of any community, society, project or programme. Together these aspects or variables will describe, measure and monitor the following:

- General characteristics of a community or country, which will influence all other aspects of the society as well as the analysis and follow up action;
- Available resources (policies) and opportunities (existing programmes and organizations) to promote and strengthen gender equality;
- Education (e.g. schools) and communication (e.g. media) processes within a community that over time will impact positively or negatively on gender equality in the society;
- Extent to which the objectives of gender-sensitive policies, decisions and practices are realized over time in society.

Indicators also allow us to:

- Assess changes over time in a given condition or situation;
- Observe more closely the results of initiatives or actions;
- Evaluate and follow up the results of DRR processes;
- Provide tools to help achieve better results in programmes or initiatives.

5.3 What are gender-sensitive indicators?

Gender-sensitive indicators are signs that help to take the pulse of equality between women and men in a given place, whether it is



worldwide, a region, a province, or a community. They are needed in order to measure progress or setbacks in reaching gender equality over time, in ways that may be analyzed and systematized. A summary of gender vulnerability in Malawi below is an example of some of these signs of inequality (Hay and Phiri, 2008).

Gender-based vulnerability in Malawi	
1	Women comprise 70% of the agricultural labor force, but they are less likely to engage in cash crop production due to labor and time constraints.
2	The value of assets owned by male-headed households is more than double that of female-headed households and male-headed households are more likely to own agricultural assets.
3	Women's rates of pay for <i>ganyu</i> (short term rural labouring) is likely to be only two-thirds the rate paid to men.
4	Women face more difficulties in accessing credit, as they do not possess assets for collateral.
5	In 2006, 56% of women were literate compared with 79% of men;
6	Only 43% of births are attended by health workers leading to high maternal mortality.
7	As household assets are depleted women are more likely to engage in sexual transactions and other such risky behaviors to meet household subsistence needs.
8	Women and girls typically take on the burden of caring for sick family members.

9	Young girls are more likely to be withdrawn from school to care for younger siblings or the sick and to assist with domestic and agricultural work following a livelihood shock to the household.
10	Female-headed households are more dependent than male headed households on external support for their subsistence – gifts of food from relatives, food aid and public works programmes.
11	Women are rarely represented on the council of elders, and so are unable to influence decisions over access to land, inheritance rights and so on.

Context, entry and process variables or indicators they allow us to examine the key elements of gender-based vulnerability because they:

- Make visible what is currently invisible, allowing us to verify whether there is equality between men and women, where and why inequalities exist and how they vary over time, and measure conditions that effect men and women differently;
- Compare results between one place and another e.g. compare the results in a community to those of a country as a whole, or to carry out international and regional comparisons;
- Find out if there is a trend towards progress over time that is, whether the gender situation has improved or worsened, signalling changes in power relations between women and men;
- Measure the impact of policies, programmes on gender equality in the community, the region, the nation or the world;
- Plan, implement, coordinate, and evaluate policies, programmes and better determine the most effective access, use and control of resources and distribution of costs and benefits.



- Circumstances can often change quite rapidly, but society and human behaviour often changes slowly. It can be necessary to revise the indicators that we use as time passes. There are a number of key factors to consider in the design and selection of indicators.

5.4 How can good indicators be built?

Quantitative and qualitative indicators paint different pictures of what the social context is before a project starts and reflect different aspects of changes brought about through any policy or intervention. Both measures are needed to show the full picture of reality, and to allow us to properly evaluate and formulate DRR programmes and initiatives.

Quantitative indicators deal with what can be counted and measured. They often refer to the numbers and percentages of women and men or organizations involved in or affected by an initiative or event. Gender-sensitive quantitative indicators often need to draw on sex-disaggregated data systems and records. When quantitative baseline data is available, quantitative indicators can include some element of target setting.

Quantitative indicator:

The percentage of women who have newly acquired boats in a community due to an initiative.

Qualitative indicators deal with information that is not directly quantifiable, such as opinions, perceptions or judgments. Qualitative indicators have a strong explanatory and analytical purpose, and are particularly vital in understanding the impact of a programme or initiative on people, including how improvements can be made.

For example, it is not enough to know that women are participating in an activity: the quality of their participation and experience is all-important. Subjective perceptions are the ultimate measure of whether a project is experienced by its subjects as successful, and whether the participation benefited them or not.

Qualitative indicator:

Women's perceptions in the community about whether the new boats have improved their quality of life and if not, why not.

All gender-sensitive indicators, whether they are quantitative or qualitative need to be:

- **Realistic:** There are the means to verify the information (data is available, timing is feasible, etc); the data is attainable, and they are user-friendly to implement;
- **Meaningful:** The link between the indicator and the objective being sought is clear and can be demonstrated, that is, they address the gender gaps and inequalities you are seeking to overcome;
- **Determined by or with the people concerned:** They are gathered using participatory approaches, and women and men can actively take part in the planning of performance measurement frameworks, in their implementation, and in the discussion of their findings.



They must allow for:

- Systematic measurement of the particular aspect of the conditions that an initiative, or programme is addressing;
- Systematic analysis through being representative of reality: The ability to capture both qualitative and quantitative information provides a full picture of the real situation, allowing for explanation and analysis of the quality of progress.

It is important to:

- Collect sex-disaggregated data regarding power relations, access to resources and capital, socioeconomic status, education, access to infrastructure and services, and income-generating activities;
- Take a long-term perspective. Programmes need to demonstrate how women and men participate, and indicators should use measurements that reveal changes in power (and social) relations between and amongst women and men over and beyond the duration of a programme.

Gender issues are present in every dimension of life, and thus, we must be careful to include as comprehensive a set of indicators as possible within the scope and budget of a programme. A general framework or checklist for evaluating the completeness of a set of gender indicators is presented in the table below.

Area of life	Product variables or indicators
Work (paid and unpaid)	Traditional (women teach primary school; men drive trucks) Non-traditional (male nurses; female taxi drivers)
	Capacity-value (know how/ability/worth of women's work)
	Productive projects (role of women in projects that have positive impact on community)
	Relations-satisfaction (family/social support and approval; personal interest/value return of paid work for women)
Resources	Technology
	Credit
	Property
	Access
	Information
Education Training	Training
	Formal education
Health	Physical
	Reproductive
	Sexual
	Mental
Power relations	Participation
	Decision-making
	Leadership



Area of life	Product variables or indicators
Violence	Reporting violence
	Support
	Information
	Against girls or boys
	Alcoholism-drug addiction
	Diverse forms
Social relations	Family
	Couple
	Community
	Friendship
Individual growth and quality of life	Participation/expression/autonomy/recognition-valuation
	Purpose in life/satisfaction/self-realization/negative feelings
	Stereotypes/sexuality/paternal or maternal responsibility/rest

5.5 How do we use indicators during the programme cycle of a disaster risk reduction intervention?

Indicators are the basis of a gender-sensitive monitoring and evaluation system used to design and evaluate the effectiveness, efficiency and sustainability of any disaster risk reduction intervention. Monitoring and evaluation systems are a vital starting point for mainstreaming gender into disaster risk reduction (DRR) as they inform reporting on the implementation of the Hyogo Framework and the Millennium Development Goals (MDGs) at national level. Monitoring and evaluation can be built to be comprehensively gender-sensitive, starting from the criteria with which indicators are built, which are then used to analyze the results of activities.

It is important that gender equality is factored into a programme from the start. Gender-sensitive design and the use of gender-sensitive indicators should be an integral part of programme planning, monitoring and evaluation from the beginning rather than an 'add-on' concern. This must be based on an initial analysis of the status of gender relations among the various stakeholders which can then serve as a reference point and baseline against which to measure results.

It is as important to set gender-sensitive objectives and activities from the very beginning as it is to include a budget to meet the costs of realizing them. Budget is necessary to secure reliable, ongoing and systematic monitoring of these indicators, which must be evaluated in good enough time to inform programme decisions. Focusing on the essential and establishing clear priorities is a vital principle. It is far better to be approximately accurate and fast, than highly accurate and too late. A manageable number of variables should be prioritized for evaluation purposes, remembering the importance of including qualitative indicators to better analyze and interpret the quantitative data. Attention should be paid not only



to quantity, but also to quality of subjects' experiences, particularly around participation, and how women and men, girls and boys aspirations have changed. This qualitative measure can be a reliable indicator of changing opinions, perceptions and empowerment.

Reporting on DRR programmes at local and national level will be made easier if the indicators for gender-sensitive implementation of the Hyogo Framework are aligned or integrated with those used to monitor the MDGs and other internationally agreed development goals. The practical experience already gained in monitoring the MDGs can be drawn on and information available on useful indicators for evaluating progress towards reducing risk is available in 'Indicators of Progress: Guidance on Measuring the Reduction of Disaster Risks and the Implementation of the Hyogo Framework for Action' (UNISDR, 2008). These can be used as a reference when considering gender-sensitive indicators for policy development, risk assessment, and planning and implementing an early warning system, examples of which are given in the next section.

If indicators and benchmarks for measuring progress on the MDGs are adapted to monitoring and evaluating efforts to mainstream gender in risk reduction, and vice versa, the benefit is two-fold. It will ensure that MDG interventions are sensitive to reducing risk, and that clear targets are set for achieving gender-sensitive risk reduction at community and national levels.

The table below illustrates a clear relationship between the role and circumstances of women in society, and the success of that society in realizing the MDGs and implementing the Hyogo Framework.

Priority areas	HFA Strategic goals		
	Integration of disaster reduction into sustainable development policy and practice	Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards	Systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes
<p>HFA 1.</p> <p>Making disaster risk a national and local priority</p>	<p>MDG#1 eradicating extreme poverty and hunger, food security</p> <p>(70% of the world's poor are women; In Africa women produce 80% of the agricultural produce most of it for subsistence agriculture)</p>	<p>MDG#1 eradicating extreme poverty and hunger, food security</p>	<p>MDG#8 develop a global partnership for development</p> <p>(Women are primarily responsible for collection of water, preparation of food, caring for the sick and elderly, involved in the informal and subsistence economy)</p>



Priority areas	HFA Strategic goals		
<p>HFA 2.</p> <p>Improving risk information and early warning</p>	<p>MDG#1 eradicating extreme poverty and hunger, food security</p>		
<p>HFA 3.</p> <p>Building a culture of safety and resilience</p>	<p>MDG#2 achieving universal primary education</p> <p><i>(Worldwide fewer girl graduate from primary school than boys; children are more likely to leave school to care for younger siblings and assist in domestic or other work in single headed households)</i></p>	<p>MDG#2 achieving universal primary education</p>	
<p>HFA 4.</p> <p>Reducing the risks in key sectors</p>	<p>MDG#1 eradicating extreme poverty and hunger, food security</p> <p>MDG#3 preventing loss of lives and livelihoods and in particular child mortality</p> <p><i>(Women are primarily responsible for collection of water, preparation of food, caring for the sick and elderly, involved in the informal and subsistence economy)</i></p>	<p>MDG#4,5,6 Access to clean drinking water and basic healthcare</p> <p><i>(Women are primarily responsible for collection of water, preparation of food, caring for the sick and elderly, involved in the informal and subsistence economy)</i></p>	<p>MDG#1 eradicating extreme poverty and hunger, food security</p> <p>MDG#2 achieving universal primary education</p> <p>MDG#4,5,6 access to clean drinking water and basic healthcare</p>

Priority areas	HFA Strategic goals		
	<p>MDG#7 ensuring environmental sustainability</p> <p><i>(Women play a significant role in managing and using environmental goods and services in their traditional role in the informal and household economy, especially in rural areas of developing countries)</i></p>		
<p>HFA 5.</p> <p>Strengthen preparedness for effective response at all levels</p>	<p>MDG#1 eradicating extreme poverty and hunger, food security</p>		<p>MDG#2 achieving universal primary education</p>



The use of gender-sensitive indicators is essential for mainstreaming gender in the implementation of the Hyogo Framework. They support the ability of women and men to cope with and reduce the impact of disasters a community or a nation faces. The next section presents a summary table of agreed indicators for the different Hyogo Framework elements, and suggests gender-sensitive indicators that can be used to monitor the mainstreaming of gender in policy development (HFA 1), risk assessment (HFA 2) and in the development and implementation of early warning systems (cutting across HFA 2, 3, 4 and 5).

5.6 Some examples of gender-sensitive indicators for disaster risk reduction

In 2007, UNISDR, in consultation with a range of experts, identified a preliminary range of indicators to measure progress on different results expected from disaster risk reduction activities implemented within the context of the Hyogo Framework. The table below summarises the results that are relevant to policy development, risk assessment and early warning systems. Some indicators pertinent to specific results have been selected to illustrate a gender-sensitive approach. They are not comprehensive. Rather, they can be used to stimulate ideas and thoughts about possible gender-sensitive indicators, using information about the local context and processes in place, that can measure and reflect how gender equality is being promoted and realized through disaster risk reduction initiatives over time.

The table below is structured for easy cross-reference to the other guidelines in this series and does not parallel the Hyogo Framework exactly. It serves to illustrate some examples of gender-sensitive indicators that can be used for mainstreaming gender, addressing some variables that define, constrain and make possible equality between women and men.

Expected Results		Gender-Sensitive Outcome	Examples of Possible Indicator Sets
HFA 1. Make disaster risk reduction a national and local priority	Multi-sectoral coordination mechanisms for DRR created and functioning.	Composition of multi-stakeholder and multi-sector national and local platforms/ coordination mechanisms include organizations and experts representing gender issues in development and DRR.	The national and local DRR coordination mechanism has a gender equity policy that supports women's full and equal participation in DRR planning and leadership opportunities. Number of representatives with gender expertise who sit on the National and local Platforms/ coordinating mechanisms.
	Multi-sectoral policies and plans developed DRR integrated into development policy and planning Increased resource allocation for DRR.	Mechanisms to address gender issues are included in the multi-sectoral plans, policies and strategies.	Multi-sectoral plans, policies and strategies are prepared based on sex-disaggregated data and gender analysis.
		Equal participation of men and women is facilitated and ensured in the development of multi-stakeholder policies and plans.	Sex-disaggregated data is collected for all development sectors at community to national level and included in the CCA/UNDAF and MDG reporting process, and in DRR plans and strategies.
		Dedicated and adequate resources are available to develop and implement gender-sensitive disaster risk reduction plans at all administrative levels: national, regional, sub regional and local.	DRR policies in different development sectors use gender-specific language in statements, frameworks and guidelines.
HFA 2. Improving risk information and early warning	Risk Assessment. *	National and local risk assessments based on hazard data and vulnerability information include sex-disaggregated data and analysis.	Women's representatives from disaster-affected communities are consulted and contribute to hazard mapping and vulnerability assessment standards.



Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	<p>Assessments include existing vulnerabilities and capacities specific to both women and men, and evaluate the risk faced by both groups considering differing social and economic roles and responsibilities.</p> <p>Women's involvement and participation is ensured in the four processes: identifying threats, determining vulnerabilities, identifying capacities, and determining acceptable levels of risk.</p>	<p>Female scientists, social scientists and economists with gender expertise contribute to models that assess vulnerability and coping capacity.</p> <p>Risk assessment teams include members with gender expertise.</p>
Risk mapping.	<p>Systems that monitor, archive and disseminate data on key hazards and vulnerabilities include sex-disaggregated data and analysis of gender issues.</p> <p>Representation of women in risk identification and evaluation is ensured.</p>	<p>Sex-disaggregated data on vulnerabilities available.</p> <p>Perception of risks from women living in hazard-prone areas included in the risk assessments/ mapping.</p> <p>Risk assessments include gender-based vulnerabilities caused by emerging risks.</p>
Data analysis and dissemination: Statistical information is maintained and shared on disaster occurrence, impact and losses.	Databases and records systems for sex-disaggregated data are maintained at national and appropriate sub-national levels to a common and compatible standard.	<p>Numbers and percentages of disaster related databases with sex-disaggregated data.</p> <p>Number of databases and updates of sex- and age-specific socioeconomic data.</p> <p>Number of deaths, injuries and displacements caused by disasters, disaggregated by sex, age and hazard are included in the databases.</p>

Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
		<p>Number of studies with gender-differentiated data and analysis undertaken in past five years.</p> <p>Number of organizations with gender expertise involved in the development of national standards for the systematic collection, sharing, and assessment of hazard and vulnerability data development.</p> <p>Availability of funding for setting up, updating and sustaining sex-disaggregated databases.</p>
<p>Vulnerability and disaster risks: Indicators of disaster risks, hazards and vulnerability developed, to assess the impact of disaster on socioeconomic and environmental conditions at national and sub-national levels.</p>	<p>Gender- and women-specific indicators are included in risk and vulnerability indicators.</p> <p>Specific social, economic, cultural and personal issues that impact on the vulnerability and coping capacity of women, men, girls and boys are considered when developing indicators.</p>	<p>Vulnerabilities and capacities are evaluated based on:</p> <p>Percentage of households headed by women.</p> <p>Assets and savings of the women headed households.</p> <p>Percentage of women and men who can swim or who have other life saving skills .</p> <p>Number and percentage of women and men who own land and other assets.</p> <p>Access to financial information and credit for women.</p> <p>Number and percentage of women in professional and formal employment.</p>



Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
		<p>Average wage of women compared to men.</p> <p>Proportion of men to women with cash savings in hand.</p> <p>Gender-differentiated literacy data.</p> <p>Percentage of women in elected political institutions.</p> <p>Women's ratings of the personal value and benefits of being involved in vulnerability assessments, before and after hazards strike.</p>
<p>Research, analysis and reporting are undertaken on long term changes and emerging issues that might increase vulnerabilities and risk exposure</p> <p>Improved methods for predictive and multi-risk assessments and socioeconomic cost-benefit analysis developed.</p>	<p>Multi-sector, multi-risk assessments include a gender-sensitive social and economic analysis.</p> <p>Gender specific aspects are included in the research and analysis of emerging risk and vulnerability issues.</p>	<p>Availability of studies and updates conducted on context-specific gender analysis.</p> <p>Inclusion of gender analysis in the risk assessment methodologies.</p> <p>Engagement/participation of development and grassroots organizations active in high risk areas in the risk assessments.</p>

Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	Monitoring and early warning.	Warnings are formulated and disseminated ensuring they are adequately understood by all women, men, girls and boys at risk, and on time.
	Early warning systems and information management: People-centred early warning systems and communication systems developed, reviewed and assessed.	<p>Warning systems include specific measures to reach women, ensuring to address any gendered cultural constraints on mobility and information access.</p> <p>Systems of evacuation include specific measures for women and girls within the context of any gendered cultural constraints such as on mobility.</p> <p>Warning messages target women and men, with attention to age, culture, literacy, information access and sociocultural context.</p> <p>Consultation and participation of women in hazard-prone areas in formulating messages and evacuation systems.</p> <p>Engagement of women's organizations and women leaders in the design and planning of the warning and evacuation.</p> <p>Evacuation systems targeted at women and girls.</p> <p>Specific measures taken to ensure safety and security of women and girls in evacuation plans.</p>



Expected Results		Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	International Coordination: International and regional efforts are harmonized for cooperation and support for standards in early warning capacities and procedures		
	Exchange of data and monitoring at regional level: Regional data and information is compiled and exchanged; transboundary hazards are monitored	Regional databases use sex-disaggregated data, and include social and cultural commonalities and contrasts to aid planning for transboundary monitoring of hazards and vulnerabilities. Gender implications of transboundary hazards are analyzed.	Databases of the regional intergovernmental organizations contain structures and systems for sex-disaggregated data collection and analysis. Financial commitment to collection and sharing of sex-disaggregated data.
	Dissemination and information	Women, men, girls and boys understand the hazards the community faces, are alert to natural signs as well as formal early warning and know how to respond.	Number and types of mechanisms for disseminating hazard information. Number of specific types of mechanisms for disseminating hazard information to women and girls. Number and proportion of women to men involved in the dissemination of hazard information.

Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets	
		Feedback from women in communities living in hazard-prone areas on the adequacy, quality and timeliness of warning information.	
	Risk assessments and maps (hazards/vulnerability) are current and available to the public.	Updating of existing risk assessments and maps include gender-based data, analysis, and issues. Ensure there are specific mechanisms to reach women with risk-related information.	Specific risk communication methodologies are used to target men and women. Numbers of specific methods used to reach women are compatible with their social norms and levels of literacy.
	Public Information: Good practices and lessons learned collected, disseminated and used.	Communication products specifically targeting women with hazard information or warnings have been developed. In disseminating information, appropriate systems and mechanisms are used to reach women.	Number of gender experts, women's groups, or women living in hazard-prone areas who are consulted in identifying and obtaining appropriate equipment and mechanisms for communicating hazard information and warnings.
HFA 3. Building a culture of safety and resilience	Professional vocabulary, commonly agreed concepts and international standard terminology related to DRR is widely used and disseminated. Formal education and engagement of children in DRR knowledge is included in school curricula.	Women of different stakeholder groups are consulted in developing terminologies. Gender-sensitive DRR terminologies and concepts are developed and disseminated through formal school curricular and informal training and teaching systems.	Numbers of teachers and trainers who are aware of gender-sensitive DRR terminologies. Numbers of media personnel trained to report on gender issues in DRR. Amount of public information material on gender-sensitive DRR. Women are confident of the knowledge they have and are able to contribute through their formal and informal activities.



Expected Results		Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	Professional and multi-sectoral training DRR training and learning programmes developed and targeting specific sectors.		
HFA 5. Strengthen preparedness for effective response at all levels	Build national and community response capability.	Preparedness plans and response capacities are gender-sensitive and address the main gender-based differences in disaster preparedness and response.	Studies on gender analysis in disasters in given area/context. Recommendations of gender analysis is incorporated into the preparedness and response plans with clear outcomes and indicators. Organizations/teams in charge of planning include gender expertise.
HFA 1. Make disaster risk reduction a national and local priority	Community participation: Community and volunteers empowered and involved in DRR planning and activities. Specific mechanisms are developed to engage stakeholders, communities and volunteers. Capacity development: Capacity assessed and supported and strengthened at all levels in all sectors.	Contribution of women and men is ensured in developing local and national disaster preparedness and response capacity. Mechanisms are developed to ensure the participation and active engagement of girls and women from all stakeholder groups. Capacity development policies/programmes include specific measures to include girls and women as trainees and trainers. Capacity development programmes are based on women's constraints on participation in DRR activities.	Specific actions and resource allocations to address gender-based preparedness and response issues are included in the plans. Specific mechanisms are adapted to address sociocultural specificities and constraints to ensure women's participation. Numbers of local and grassroots women's organizations participating in planning exercises.

Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	<p>DRR resources are accessible by both men and women for developing preparedness and response capacities.</p> <p>Programmes for developing volunteer groups make sure they include both men and women.</p> <p>Both men and women are trained in gender-sensitive response and recovery.</p>	<p>Numbers and proportions of women and girls to men and boys taking part in training, skill development and volunteer programmes.</p> <p>Numbers and proportions of women and men in decision-making and leadership positions in the planning process.</p> <p>Percentage of women who attend training groups coming from high-risk areas.</p> <p>Numbers of female-led community groups/ organizations that have capacity to lead DRR initiatives.</p>
<p>HFA 3.</p> <p>Building a culture of safety and resilience</p>	<p>DRR knowledge is included in school curricula.</p> <p>Professional and multi-sectoral training.</p> <p>DRR training and learning programmes are developed and target specific sectors.</p>	<p>DRR curricula in formal education institutes include gender-sensitive analysis, gender issues.</p> <p>DRR training and learning programmes include concepts, analysis and case studies for gender sensitivity.</p> <p>Number of context-specific gender and disaster training modules in place at tertiary institutions and at community training centres.</p> <p>Number of male trainers on gender in DRR.</p> <p>Women with technical and professional skills and those who are active in the areas of family, health, violence, education, employment and the environment contribute to DRR professional training.</p>
	<p>Access to advanced technology: Use of and access to recent information, communication and space-based.</p>	<p>Information, communication and space-based technologies are gender-sensitive.</p> <p>Knowledge transfer, technical training and information management make sure to both engage and reach women.</p> <p>The insights, knowledge and considerations of women and men, boys and girls are input to maps, plans and DRR scenarios using a GIS participatory approach.</p>



Expected Results		Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	technologies to support DRR is promoted and supported by the required knowledge transfer, technical training and information management.		<p>Number of community representatives, gender experts, or women's groups consulted in identifying and obtaining appropriate equipment or mechanisms for risk assessments, communicating hazard information and warnings.</p> <p>Numbers and proportion of women to men included in the training and information management activities as trainees and trainers.</p> <p>Percentage of women compared to men who have been trained to use advanced technologies.</p>
HFA 4. Reducing the risks in key sectors	Networks among disaster experts are strengthened together with dialogue and cooperation among scientific communities and cross-disciplinary professional interaction.	<p>Processes and mechanisms to ensure dialogue between gender experts, scientists, and technical experts.</p> <p>Mechanisms to ensure the inclusion of gender issues in scientific dialogue and professional interaction are in place.</p> <p>Female professionals and women's organizations are included in decision-making and follow-up actions on political decisions to implement gender-sensitive DRR.</p>	<p>Checklists, guide notes, standard terminology and indicators in support of incorporating gender issues in scientific research and dialogue are available.</p> <p>Benchmarks on gender issues and indicators are prescribed in plans, strategies and tenders for risk reduction programmes.</p> <p>Numbers of professionals and scientists with gender awareness, training and skills.</p> <p>Financial and education resources available for gender and DRR training and capacity development.</p>

Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
		Dialogue/networking between academic researchers and the government on gender-sensitive disaster management.
	Social protection and safety nets are identified and promoted for marginalized populations.	<p>Gender-sensitive information is available about contextual vulnerabilities of women and girls in specific locations and circumstances – such as issues of mobility, levels of security, elderly dependents, children and single-headed households.</p> <p>Inclusion of parameters such as women-headed households, single households, widows and the unemployed in social protection plans and programmes.</p> <p>Participation of women from vulnerable groups in identification of the requirements and capacities.</p> <p>Mechanisms and processes enable the participation of women from vulnerable groups.</p> <p>Number and proportion of women to men involved in decision-making processes in developing social safety nets and protection programmes.</p> <p>Percentage of microinsurance schemes, and other skill development and support programmes specifically targeting low-income women, measured at national, local and community level.</p>
HFA 5. Strengthen preparedness for effective response at all levels	Contingency Plans: Disaster preparedness and contingency plans prepared and reviewed periodically.	<p>Contingency plans include gender-specific issues and measures to address them.</p> <p>All components of contingency and disaster preparedness plans include gender issues specific to the location and community.</p> <p>Number of gender-sensitive and up-to-date emergency preparedness and response plans.</p> <p>Proportion of women to men participating in hazard warning and response drills.</p>



Expected Results	Gender-Sensitive Outcome	Examples of Possible Indicator Sets
	<p>The planning teams include adequate resources and contribution to gender issues, experience and lessons.</p> <p>Engagement of the men and women from the communities at risk in the planning, preparation and review.</p>	<p>Programmes at community level specify and pay for women's active participation in project monitoring and evaluation.</p>
<p>Established emergency funds promoted.</p>	<p>Systems and mechanisms are in place to enable access to emergency funds by both men and women.</p>	<p>Women's feedback on allocation and management of funds.</p> <p>Criteria identified for targeting women's access to emergency funding.</p> <p>Comparative amount of DRR resources accessed by women and men.</p> <p>Resource allocation for training and skill development of women and girls in disaster response.</p> <p>Numbers of women and girls trained, and engaged in response activities.</p>

The collection and dissemination of knowledge is inextricably linked to risk identification and hazard monitoring. Each brings together experiences that have shaped the subjectivity of different people. This serves as the foundation for recommendations so that people can produce or reproduce policies derived from the collective knowledge. It is important that the analysis takes into account structures already in place which make some women more vulnerable in particular locations, situations and time periods, and further investigates the ways in which those structures potentially limit women's abilities to participate in the DRR framework.

The task of documenting women's specific experiences in disasters and their contributions to disaster risk reduction is daunting. However, it is critical that we move beyond documentation and make the changes in our practice that will contribute to "the dignity and worth of the human person, in the equal rights of men and women and of nations large and small."



References

Aguilar, L. 2004. Climate change and disaster mitigation: gender makes the difference. IUCN.

Aguilar, L. (in press). Establishing the linkages between gender and climate change: State of the world.

Aguilar, L., Castaneda, I. 2001. About fishermen, fisherwomen, oceans and tides: A gender perspective in marine-coastal zones World Conservation Union, Regional Office for MesoAmerica, Gender Unit, Costa Rica.

Bennett, R., Morse, S., and Ismael, Y. 2007. Genetically modified cotton benefits South African farmers. ID21 Natural Resources Highlights 4 Agriculture(March), 3.

Blanco Lobo, M., and Duran Vargas, R. 2005. Gestión del riesgo de desastres con equidad de género: Elementos conceptuales y metodológicos Mexico: PNUD.

Briceño, S. 2002. Gender mainstreaming in disaster reduction, Commission on the Status of Women. New York: Secretariat of the International Strategy for Disaster Reduction.

Cannon, T. 2002. Gender and climate hazards in Bangladesh. *Gender and Development*, 10(2), 45-50.

Castro García, C., and Reyes Zúñiga, L. 2006. Desastres naturales y vulnerabilidad de las mujeres en México. México: Instituto Nacional de las Mujeres, PNUD.

Dimitrijevic, A., 2007. Mainstreaming gender into disaster recovery and reconstruction. The World Bank Institute. DRAFT

Enarson, E. 1998. Through women's eyes: A gendered research agenda for disaster social science. *disasters*, 22(2), 157-173.

Enarson, E. 2006. SWS Fact Sheet: Women and disaster.

Enarson, E. (forthcoming 2009). Gendering disaster risk reduction: 57 steps from words to action. Forthcoming in *Women, Gender and Disaster: Global Issues and Initiatives*, E. Enarson and P.G.D. Chakrabarti (eds.), Sage India.

Escalante, A.C., Peinador and Aguilar, L, Badilla, A.E. 1999. Eyes that see hearts that feel: Gender Indicators 1st Ed, IUCN, Costa Rica.

FAO. 2000. Gender and nutrition. Retrieved, from the World Wide Web: http://www.fao.org/sd/2001/PE0703a_en.htm

Fordham, M. 2001. Challenging boundaries: A gender perspective on early warning in disaster and environmental management, United Nations Division for the Advancement of Women (DAW) International Strategy for Disaster Reduction (ISDR) Expert Group Meeting on "Environmental management and the mitigation of natural disasters: a gender perspective". Ankara.

Hay, E.R. and Phiri, M.A.R. 2008. Situation analysis of disaster risk management programmes and practices. 65pp. Department of Disaster Management

Affairs, Government of Malawi and World Bank, Washington, USA.

Moser, C., and Satterthwaite, D. 2008. Pre-poor climate change adaptation in the urban centres of low-and middle-income countries, Workshop on Social Dimension of Climate Change. Washington D.C.: World Bank.

Neumayer, E., and Plümpner, T. 2007. The Gendered nature of natural disasters: The impact of catastrophic events on the gender gap in life expectancy, 1981-2002 Retrieved, from the World Wide Web: SSRN: <http://ssrn.com/abstract=874965>

Oxfam. 2005. The tsunami's impact on women. Retrieved, from the World Wide Web: http://www.oxfam.org/en/files/bn050326_tsunami_women/download

Oxfam. 2007. Adapting to climate change: What's needed in poor countries, and who should pay.

Skutsch, M., Roehr, U., Alber, G., Rose, J., and van der Heul, R. 2004. Mainstreaming gender into the climate change regime (COP 10). Buenos Aires.

UNISDR. 2002. Women, disaster reduction and sustainable development.



UNISDR. 2004. Living with risk: A global review of disaster reduction initiatives: United Nations.

UNISDR. 2008. Global survey of early warning systems.

UNISDR. 2007. Words into action: A guide for implementing the Hyogo Framework for Action.

UNISDR. 2008. Indicators of progress: Guidance on measuring the reduction of disaster risks and the implementation of the Hyogo Framework for Action.

Annex Chapter 5 (Words into action, UNISDR, 2007)

Priority areas	Core tasks for DRR	Key indicators
HFA 1. Making disaster risk a national and local priority	Engage in multi-stakeholder dialogue to establish foundations.	Legal framework exists with explicit responsibilities defined for all levels.
	Create or strengthen mechanisms for systematic coordination.	National multi-stakeholder platform.
	Assess and develop institutional basis.	National policy framework exists that requires plans and activities at all levels.
	Prioritize and allocate appropriate resources.	Dedicated adequate resources to implement plans at all levels.
HFA 2. Improving risk information and early warning	Establish an initiative for country wide risk assessments.	National risk assessments based on hazards and vulnerability information/data and include risk assessments for key sectors.
	Review availability of risk related information and capacities for data collection and use.	Systems are in place to monitor, archive and disseminate data on hazards and vulnerability.
	Assess capacities and strengthen early warning.	Early warning in place for all major hazards.
	Develop communication and dissemination mechanisms.	Early warnings reach and serve people at community level
HFA 3. Building a culture of safety and resilience	Develop a programme to raise awareness.	National awareness strategy exists that reaches all communities and people of all education.
	Include DRR in education system and research community.	School curricula at all levels includes DRR elements and instructors are trained in DRR at all levels.
	Develop DRR training for key sectors.	
	Enhance the compilation, dissemination and use of DRR information.	



Priority areas	Core tasks for DRR	Key indicators
<p>HFA 4.</p> <p>Reducing the risks in key sectors</p>	<p>Environment: Incorporate DRR in environment and natural resource management.</p>	<p>Environmental protection and natural resource management and climate change policies include DRR elements.</p>
	<p>Social needs: Establish mechanisms for increased resilience of poor and most vulnerable.</p>	<p>Specific policies and plans are implemented to reduce vulnerability of impoverished groups.</p>
	<p>Physical planning: Establish measures to incorporate DRR in urban and land use planning.</p>	<p>Land-use development zoning, plans and building codes exist, include DRR elements and are strongly enforced.</p>
	<p>Structures: Strengthen mechanisms for improved building safety and protection of critical facilities.</p>	<p>Long term national programme to protect schools, health facilities and critical infrastructure from common natural hazards.</p>
	<p>Stimulate DRR activities in production and service sector.</p>	<p>Procedure in place to assess the disaster risk implications of major infrastructure project proposals.</p>
	<p>Financial/economic instruments: Create opportunities for private sector involvement in DRR.</p>	
	<p>Disaster Recovery: Develop a recovery planning process that includes DRR.</p>	

Priority areas	Core tasks for DRR	Key indicators
HFA 5. Strengthen preparedness for effective response at all levels	Develop a common understanding and activities to support preparedness.	Disaster preparedness and contingency plans at all levels with regular training drills and rehearsals to test and development disaster preparedness and response.
	Assess preparedness, capacities and readiness.	Independent assessment done responsibilities for implementing recommendations, resources schedule assigned.
	Strengthen planning and programming for response, recovery and rehabilitation.	All organizations, personnel and volunteers responsible for maintaining preparedness are equipped and trained for effective disaster preparedness and response.
		Financial and contingency mechanisms are in place to support effective response and recovery.
	Procedures are in place to document experience during hazard events and disasters and to undertake post event reviews.	



Annexes





Annexes

1. Acronyms

ADB	Asian Development Bank
ASEAN	Association for South East Asian Nations
BCPR	Bureau of Crisis Prevention and Recovery
CCA	Common Country Assessment
COP	Conference of Parties
DAW	United Nations Division for the Advancement of Women
DRR	Disaster Risk Reduction
ECOSOC	Economic and Social Council
FAO	Food and Agriculture Organization
GFDRR	Global Facility for Disaster Risk Reduction- World Bank
GGCA	Global Gender and Climate Alliance
GROOTS	Grassroots Organizations Operating Together in Sisterhood International
HFA	Hyogo Framework for Action
IUCN	International Union for Conservation of Nature and Natural Resources

ISDR	International Strategy for Disaster Reduction
MDGs	United Nations Millennium Development Goals
NGOs	Non-governmental organizations
SAARC	South Asia Association for Regional Cooperation
SIDA	Swedish International Development Agency
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNISDR	United Nations International Strategy for Disaster Reduction
WEDO	Women's Environment and Development Organization
WCDR	World Conference on Disaster Reduction, Kobe, Hyogo Japan
WHO	World Health Organization
WSSD	World Summit on Sustainable Development



2. Terminology

Disaster: A serious disruption of normal life that includes major loss of lives or property too severe for a society or community to cope with and recover from on its own. Disasters can result from natural, biological or technological hazards. This guideline deals with disasters resulting from natural hazards – such as hurricanes, earthquakes and floods.

Disaster risk reduction (DRR): A cross-cutting development process with the goal of reducing losses from natural hazards. DRR can be expressed as an overarching philosophy or framework embedded in sustainable development. It aims to reduce disaster vulnerability and increase resilience by encompassing disciplines like disaster management, disaster mitigation and disaster preparedness, and pursuing action across the social, political, scientific, humanitarian and development sectors.

Gender: The social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/time-specific and changeable. Gender determines what is expected, allowed and valued in a woman or a man in a given context. In most societies there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities. Gender is part of the broader socio-cultural context. (OSAGI/UNDESA)

Gender mainstreaming: Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the

design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality. (Report of the ECOSOC (A/52/3, 18 September 1997)

Natural hazard: A natural process or phenomenon – such as a hurricane, earthquake or drought - that can potentially result in a loss of life, property damage, livelihoods and services, social and economic disruption, or environmental damage.

Risk: The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environmental damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.

Vulnerability: Conditions determined by physical, social, economic, and environmental factors that increase the susceptibility of a community to the impact of hazards. The more vulnerable a community is to a natural hazard, the greater its disaster risk. Disastrous losses can result from natural hazards; but whether or not a disaster occurs, and how bad the disaster is, depends on the strength of the natural hazard, and on how vulnerable people are. Disaster risk can be reduced by reducing human vulnerabilities.



All-China Women's Federation



International Strategy for
Disaster Reduction

3. Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction

Beijing, China, 22 April 2009

We, the participants of the International Conference on Gender and Disaster Risk Reduction⁷ from 43 countries, bringing expertise and knowledge from all regions of the world, have met in Beijing, China, from 20-22 April 2009. This conference has built on the gains of a series of regional and international events promoting gender equality in disaster risk reduction, including all gender-sensitive policies, risk assessment, early warning, and success indicators for building resilience of nations and communities to disasters.

We acknowledge key regional and international processes and declarations such as the Hyogo Framework for Action, Ministerial Conferences on Disaster Risk Reduction in Asia and Africa, the Call for Action on Gender and Climate Change by the International Colloquium in Liberia, the Nairobi Plan of Action for African Parliamentarians on Disaster Risk Reduction and Climate Change Adaptation, the Beijing Platform for Action, and the Manila Declaration for Global Action on Gender in Climate Change and Disaster Risk Reduction. These processes and declarations present a consensus among the world's political leaders on the critical importance of gender mainstreaming to achieve the Millennium Development Goals.

We, the participants from 43 countries, UN agencies and civil society organizations around the world, have carefully reviewed progress and

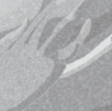
⁷ The International Conference was organized by All China Women's Federation and UNISDR. Co-hosted by the Ministry of Civil Affairs of China and the UN System in China

have identified and agreed upon challenges from a gender perspective under the five themes of the Conference: (1) Promoting policy changes for gender-sensitive disaster risk reduction; (2) Linking disaster risk reduction with poverty reduction from a gender perspective; (3) Making disaster risk reduction a tool for climate change adaptation; (4) Ensuring equal participation of men and women in building community resilience to disasters and (5) Women and post-disaster relief and reconstruction: One year after the Wenchuan Earthquake in China.

We fully recognize that disasters triggered by natural hazards such as flood, drought, tropical storms and earthquakes are on the rise. Today, the most frequent disasters are climate-related. The rising trend of disasters poses serious challenges for the world to achieve the Millennium Development Goals, especially food security, poverty reduction, and environment sustainability. International data available shows that disasters hit poor people the most, although the rich are not necessarily excluded from the impacts.

We are fully aware that women comprise 70% of the world's poor and that women are more vulnerable to the impact of disaster due to existing socio-economic, political and cultural disadvantages. Prevailing policies and frameworks do not adequately recognize and support the crucial role that women play in sustaining household and community economies and social networks. Climate change will make the daily lives of millions of women in developing countries even more difficult, primarily due to environmental degradation.

We raise concern that gender remains a marginalized issue in the current national and international negotiations around disaster risk reduction and climate change adaptation. Gender considerations have barely been applied as a fundamental principle in policy and framework development.



We are fully convinced that the issues of gender, poverty reduction, climate change adaptation, disaster risk reduction and post disaster recovery and reconstruction that we discussed at this conference are all components of the development process. Gender equality is a fundamental development issue that needs to be integrated and addressed throughout the development process. Disaster risks and the risks arising from climate change and rapid urbanization are ever-increasing challenges that the development process faces.

We need political will and commitment, scientifically sound approaches, policies, programmes and action plans to address these complex issues. It is important to adopt an innovative and comprehensive approach.

We need integrated development policies, planning and implementation processes that take into account disaster risk reduction and climate change adaptation with gender as a cross-cutting issue. We fully promote multi-stakeholder, multi-sector, multi-disciplinary and multi-level cooperation and collaboration as a win-win option to achieve and sustain gender equality. Only in this way will sustainable development be achievable.

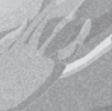
We are all convinced of the importance and need for integrating a gender perspective in policies and programmes in our own capacities as politicians, senior government officials, and development and humanitarian actors, and we are committed to advocating for this.

We, therefore, recommend nine achievable actions before 2015. We request national Governments to make strong commitments in line with international mechanisms:

1. Increase political commitment to gender analysis and gender mainstreaming through enhanced cooperation and collaboration between Ministries responsible for disaster risk reduction, climate change, poverty reduction and gender issues, with the participation of civil society;

2. Develop and review national policies, relevant laws, strategies, plans, and budgets and take immediate action to mainstream gender into national development policies, planning and programmes;
3. Foster the linkage between disaster risk reduction and climate change adaptation from a gender perspective through policy and administrative measures;
4. Collect gender-specific data and statistics on the impact of disasters, carry out gender-sensitive vulnerability, risk and capacity assessments and develop gender sensitive-indicators to monitor and measure progress;
5. Increase public and media awareness of gender-sensitive disaster vulnerabilities and capacities, and of gender-specific needs and concerns in disaster risk reduction and management;
6. Support research institutions to study the costs, benefits and efficiency of gender-sensitive policies and programmes in disaster risk reduction, climate change adaptation and poverty reduction;
7. Secure the actual application of disaster risk assessments as part of development policy-making and programme formulation to prevent disasters from making the poor even poorer;
8. Improve and mainstream a gender perspective and equal participation between men and women in the coordination of disaster preparedness, humanitarian response, and recovery through capacity building and training;
9. Build and enhance the capacities of professional organizations, communities and pertinent national and local institutions to enable gender mainstreaming in all development sectors.

We, the participants, endorse the nine points listed above and reaffirm our commitment to gender equality as a fundamental development issue needing to be integrated and addressed throughout the development process.



We, the participants, require accountability from all development stakeholders, in particular requiring that:

- Governments, especially national committees or platforms, development cooperation partners for disaster risk reduction, review and report their progress in the implementation of the above actions, as part of the reports to UNISDR for the mid-term review of Hyogo Framework of Action in 2011;
- Parliamentarians and counselors take action to ensure gender mainstreaming in national legislation through policy and budget allocations at national and local levels;
- UNISDR and UNIFEM facilitate the process in mainstreaming a gender perspective into disaster risk reduction and provide technical support to the governments and all stakeholders;
- UNISDR in collaboration with other relevant UN agencies continue to develop tools and methodologies to build awareness and support national processes to ensure that gender equality considerations are fully integrated in all disaster management processes and practices;
- UNDP in collaboration with other UN agencies provides concrete guidelines and support for making disaster risk assessment and reduction an integral part of poverty reduction strategies and programmes at country and local level;
- The World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR) take action to ensure disaster risk reduction measures are an integral part of country and sector development assistance;
- UNFCCC secretariat and UNISDR work closely together to provide concrete guidelines for making gender-sensitive disaster risk reduction part of the Copenhagen strategy for climate change adaptation at COP-15.

We therefore recommend that the global initiative on gender and disaster risk reduction should be linked to the implementation of the Hyogo Framework for Action and use the biennial Global Platform for Disaster Risk Reduction as a mechanism to monitor and assess the progress made at national level.



4. Manila Declaration for Global Action on Gender in Climate Change and Disaster Risk Reduction

Manila, Philippines, 22 October 2008

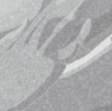
We, the participants of the Third Global Congress of Women in Politics and Governance, on Gender in Climate Change Adaptation and Disaster Risk Reduction, have gathered in Manila, Philippines, 19-22 October, 2008,

UNDERSCORING that women are vital agents of change, holders of valuable knowledge and skills, and can be powerful leaders from community to global level in climate change mitigation, adaptation and in disaster risk reduction;

RECOGNIZING that effects of climate change are one of the most urgent human security, ecological and development challenges of our time—exacerbating poverty, forced migration and conflict;

HIGHLIGHTING the close link between climate change adaptation and disaster risk reduction for which the Hyogo Framework of Action 2005-2015 provides a guide to better protect our societies and economies from current and future hazards;

UNDERLINING the findings of the Intergovernmental Panel on Climate Change (IPCC) that climate change impacts will vary among regions, generations, ages, classes, income groups, occupations and gender, and that the most marginalized will be disproportionately affected;



ACKNOWLEDGING that industrialized countries have a historical responsibility for climate change;

NOTING the lack of awareness in many countries on the issue of climate change and disaster risk reduction;

EMPHASIZING that women make up the vast majority of the world's most impoverished people and face unequal access to and control over resources, technology, services, land rights, credit and insurance systems, and decision-making power;

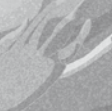
RECALLING the 2007 Human Development Report, which states that climate change is likely to magnify existing patterns of gender inequalities; and

DENOUNCING the absence of a gender perspective in the global agreements on climate change, despite national, regional and international commitments, and legally binding instruments on gender equality;

HEREIN DECLARE THAT

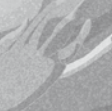
- a) Climate change and its negative impacts must be understood as a development issue with gender implications that cuts across all sectors (social, cultural, economic, and political) from the community to the global level; and concerted efforts are required by all stakeholders to ensure that climate change and disaster risk reduction measures are gender responsive, sensitive to indigenous knowledge systems and respect human rights;
- b) Women and men must equally participate in climate change, disaster risk reduction decision-making processes at community, national, regional and international levels;

- c) The Parties to the United Nations Framework Convention on Climate Change (UNFCCC) urge its Secretariat to adhere to human rights frameworks and standards, and international and national commitments to gender equality, such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Agenda 21, the Beijing Platform for Action, Security Council Resolutions 1325 and 1820, ECOSOC 2005/31, the Millennium Development Goals, the Hyogo Framework for Action and the UN Convention on the Rights of Indigenous Peoples;
- d) Parties to the UNFCCC:
 - 1) Shall request its Executive Secretary to develop and implement a strategy to ensure gender considerations are fully integrated in the Secretariat's work plan, programs, assistance to the Parties, and cooperation with financing mechanisms;
 - 2) Shall ensure participation of women and gender experts during the preparation and presentation of national communications, as well as gender parity at national and international meetings, in particular at the Conference of Parties, and recognize women as a Constituency;
 - 3) Should request the Secretariat to cooperate with international organizations and donors, in the development of gender-sensitive policies and program guidelines to aid Governments in ensuring gender equality while reducing climate-related risks and adapting to climate change at national and community level;
- e) Financial institutions and funding mechanisms supporting climate change measures and disaster risk reduction should:
 - 1) Integrate gender-sensitive criteria into planning, design, implementation, monitoring and evaluation of programs, projects and initiatives;

- 
- 2) Allocate adequate resources to address the needs of women in climate change mitigation, adaptation and disaster risk reduction, for example through funding appropriate and environmentally sound technologies and supporting women's grassroots initiatives in sustainable use of natural resources;
 - 3) Refrain from funding of extractive industries, such as mining, logging and oil and natural gas extractions that exacerbate climate change, poverty and gender inequality.
- f) Market-based mechanisms, such as the Clean Development Mechanism (CDM), carbon trading funds and credits, must be made accessible to both women and men and must ensure equitable benefits. Thus, CDM should fund projects that enhance energy efficiency and make renewable energy technologies available and affordable to women for household needs, enhancing economic activities and socio-economic mobility,
- g) Building on the Bali Plan of Action, UNFCCC (Article 6), and the Hyogo Framework for Action (Priority 3) Governments should:
- 1) Promote, facilitate, develop and implement public awareness campaigns, education and training programs on climate change and disaster risk reduction, targeting women and men, and boys and girls alike;
 - 2) Facilitate access to information on climate change and disaster risk reduction policies and results of actions, which are needed by women and men to understand, address and respond to climate change and disaster risk, taking into account local and national circumstances such as quality of internet access, literacy and language issues;

- 3) Systematically document and make accessible best practices on gender responsive climate change and disaster risk reduction initiatives, facilitating replication of such practices;
- h) All development partners shall ensure that affirmative action is promoted, and climate change and disaster risk reduction measures are rapidly adopted in high risk areas, such as Africa and small island states;
 - i) Governments, their respective statistical offices or bureaus, international organizations and financial institutions should collect sex-disaggregated data in every sector and make these readily available;
 - j) Governments and international organizations must pursue gender-responsive budgeting to ensure adequate allocation of resources to enhance the capacity of women, especially the poorest and most disadvantaged, to foster their resilience to climate change and disasters;
 - k) Governments, regional and international organizations should monitor, prepare for, and respond to climate-induced human displacement, migration and conflict, paying special attention to the needs of women and children;
 - l) South-South and South-North cooperation must be promoted and coordinated to effectively respond to the global issues of gender in climate change, disaster risk reduction and food security;
 - m) Women organizations and specialized agencies, civil society, parliamentarians, government ministries and departments responsible for gender equality and women's affairs must have a stronger voice and role in the discussions and decisions that are being made on climate change and disaster risk reduction.

WE DECLARE OUR FULL COMMITMENT to contribute to these goals and to cooperate with each other and all relevant stakeholders—including



governments, parliamentarians, the private sector, civil society, indigenous peoples, academia, religious institutions and individuals—with the intent to carry this declaration forward to all meetings through which decisions on climate change, disaster risk reduction are made, including UNFCCC COP-14 (Poznan), COP-15 (Copenhagen), the Second Session of the Global Platform for Disaster Risk Reduction and beyond.

October 22, 2008
Dusit Thani Hotel
Manila. Philippines

5. Further Readings

All publications are available in PreventionWeb at www.preventionwe.net

Indigenous knowledge: disaster risk reduction, policy note

Source(s): European Union; Kyoto University; SEEDS; UNISDR

Publication date: 2009

Number of pages: 18 p.

This policy note aims to provide a directional path for mainstreaming indigenous knowledge in disaster risk reduction by national authorities and ministries of disaster management and education, institutions of higher education in disaster management, and international and national NGOs in Asian countries. It addresses thematic areas such as: climate change and food security, rural development, urban risk reduction, gender and inclusion, mountain ecosystems, coastal zones, river basin management, water resource management, and housing.

Progress of the world's women 2008/2009: who answers to women? Gender and accountability

Source(s): United Nations Development Fund for Women (UNIFEM)

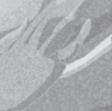
Publication date: 2009

Number of pages: 152 p.

This report demonstrates that the Millennium Development Goals (MDGs) and other international commitments to women will only be met if gender-responsive accountability systems are put in place both nationally and internationally. It provides examples of how women are demanding accountability for action on commitments to promote gender equality and women's rights from national governments, justice and law enforcement systems, employers and service providers, as well as international institutions.

Stories from the Pacific: the gendered dimensions of disaster risk management and adaptation to climate change

Source(s): AusAid, Government of Australia; UNDP



Publication date: 2009

Number of pages: 36 p.

This publication targets donors and development practitioners across the Pacific region and is intended to be used as a tool to guide the substance and direction of future programming in disaster risk management and adaptation to climate change.

Bureau for Crisis Prevention and Recovery Annual Report 2007

Source(s): BCPR

Publication date: 2008

Number of pages: 80 p.

This second Annual Report of UNDP-BCPR, Outlook 2007, provides an overview of how UNDP has continued to increase its efforts to deliver tangible results in preventing crisis and promoting recovery. Since its inception in 2001, the Bureau has sought to promote new ways of doing business—faster, earlier and in riskier situations—to restore the quality of life for those who have been affected by disaster or violent conflict.

Community based disaster risk reduction regional consultative meeting, West Asia, Middle East and North Africa region: summary and proceeding report

Source(s): IFRC; UNISDR

Publication date: 2008

Number of pages: 5 p.

This report gives a summary of the meeting, as well as recommendations to integrate disaster management and risk reduction as a part of the development agenda, through disaster risk reduction training and capacity building, and comprehensive disaster risk reduction planning processes and frameworks at national and local level.

Enabling women's empowerment in post disaster reconstruction

Source(s): DIT; RICS

Publication date: 2008

Number of pages: 19 p.

This study explores women's status in post disaster situations and examines the concept of empowerment in response to the need to include women's contribution to disaster management and to emphasise its importance in building disaster resilient communities. It discusses the factors that influence women's empowerment in post disaster reconstruction.

From grassroots to global: people centered disaster risk reduction

Source(s): ProVention Consortium

Publication date: 2008

Number of pages: 26 p.

The aim of this forum report is to record the energy, ideas and views resulting from discussions and presentations in the formal sessions and also in the corridors of the event, which is designed to allow free talking and frank exchange of ideas, challenges and innovation on disaster risk reduction.

Gender mainstreaming in emergency management: opportunities for building community resilience in Canada

Source(s): PHAC, Government of Canada

Publication date: 2008

Number of pages: 95 p.

This report builds on international efforts over the past decade to develop more gender-sensitive approaches to disaster risk management. It addresses recent initiatives by researchers, practitioners and policy makers to promote gender mainstreaming.

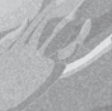
Gender perspectives: integrating disaster risk reduction into climate change adaptation

Source(s): UNISDR

Publication date: 2008

Number of pages: 76 p.

This publication points out the vital nexus between women's experiences of natural resource management, climate change



adaptation and disaster risk reduction, and how they can come together to make whole communities strong and sustainable.

Gender sensitive disaster management: a toolkit for practitioners

Publisher(s): Earthworm Books

Publication date: 2008

Number of pages: 116 p.

This Toolkit is the outcome of a research study undertaken to understand gender mainstreaming strategies used by NGOs and the Government in the context of their responses to and management of the Tsunami aftermath in Tamil Nadu.

Natural disasters and remittances: exploring the linkages between poverty, gender, and disaster vulnerability in Caribbean SIDS

Source(s): United Nations University

Publication date: 2008

Number of pages: 14 p.

This research paper explores the linkages between poverty and disaster vulnerability in the context of remittance flows to households in the Caribbean. Jamaica is used as the case study country.

Participatory impact assessment: a guide for practitioners

Source(s): FIC

Publication date: 2008

Number of pages: 63 p.

This guide aims to provide practitioners with a broad framework for carrying out project level Participatory Impact Assessments (PIA) of livelihoods interventions in the humanitarian sector.

Poverty in a changing climate

Source(s): Institute of Development Studies

Publication date: 2008

Number of pages: 120 p.

This bulletin explores adaptation using different insights and

approaches – exploring linkages from chronic poverty, gender, social exclusion, livelihoods, economics, and asset-based approaches.

Rethinking disasters: why death and destruction is not nature's fault but human failure

Source(s): Oxfam International

Publication date: 2008

Number of pages: 43 p.

This report shows that successful disaster risk reduction policies, integrated into development work, save lives and money, making vulnerable communities more resilient and protecting development gains.

Training manual on gender and climate change

Source(s): Global Gender and Climate Alliance; IUCN; UNDP

Publication date: 2008

Number of pages: 227 p.

This manual has been designed as a practical tool to increase the capacity of policy and decision makers to develop gender-responsive climate change policies and strategies.

Women as equal partners: gender dimensions of disaster risk management programme

Source(s): Government of India; UNDP

Publication date: 2008

Number of pages: 57 p.

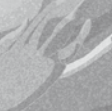
This documents addresses sustainable reduction in disaster risk and states that one of the critical indicators of disaster risk reduction is gender equity in disaster preparedness.

Building better futures: empowering grassroots women to build resilient communities

Source(s): GROOTS

Publication date: 2007

Number of pages: 12 p.



This publication highlights roles that grassroots women are playing in building resilient communities and insights emerging from resilience building efforts led by grassroots women in Peru, Jamaica, Honduras, Turkey, Indonesia, Sri Lanka and India.

Evaluation and strengthening of early warning systems in countries affected by the 26 December 2004 tsunami: report

Source(s): UNISDR - PPEW

Publication date: 2007

Number of pages: 81 p

This report presents an initiative which objective was to provide an overall integrated framework for strengthening early warning systems in the Indian Ocean region by building on the existing systems and to facilitate coordination among various specialized and technical institutions.

Gender matters: lessons for disaster risk reduction in South Asia

Source(s): ECHO; ICIMOD

Publication date: 2007

Number of pages: 51 p.

This report draws attention to gender as an indicator of vulnerability and discusses how women are disproportionately affected, particularly in the field of disaster preparedness and management

Gender perspective: working together for disaster risk reduction

Publisher(s): UNISDR

Publication date: 2007

Number of pages: 54 p.

This publication is part of ongoing efforts facilitated by UNISDR to build a global partnership for mainstreaming gender issues into the disaster risk reduction process.

Mainstreaming gender equality and equity in ABS governance

Source(s): IUCN

Publication date: 2007

Number of pages: 105 p.

This document aims to serve as the basis for a methodological proposal to mainstream a gender equity and equality perspective into the processes involving the access and benefit-sharing of biodiversity resources.

People-centred climate change adaptation: Integrating gender issues

Source(s): FAO

Publication date: 2007

Number of pages: 2 p.

This brief explains the links between gender issues and climate change and recommends ways to integrate gender into climate change adaptation policies and activities.

Superar la desigualdad, reducir el riesgo: gestión del riesgo de desastres con equidad de género

Source(s): UNDP

Publication date: 2007

Number of pages: 118 p.

Spanish Document.

Women pastoralists: preserving traditional knowledge, facing modern challenges

Source(s): UNCCD

Publication date: 2007

Number of pages: 45 p.

This publication is devoted to women pastoralists, their knowledge of and contributions to sustainable land management, and the coping mechanisms they have developed in their struggle to survive.



Words into action: a guide to implementing the Hyogo Framework

Source(s): UNISDR

Publication date: 2007

Number of pages: 165 p.

This Guide has been created to provide advice on useful strategies for implementing the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA).

Desastres naturales y vulnerabilidad de las mujeres en México

Source(s): UNDP

Publication date: 2006

Number of pages: 290 p.

Spanish Document.

Disaster risk reduction: a call to action

Source(s): ILO; IRP; UNISDR

Publication date: 2006

Number of pages: 84 p.

The document assists in facilitating and supporting efforts by governments, local authorities, international organizations, and multilateral financial and trade institutions to invest in reducing disaster risk and to promote sustainable development policies that will create better opportunities for all.

Gender and desertification: expanding roles for women to restore drylands

Source(s): IFAD

Publication date: 2006

Number of pages: 27 p.

This review examines the impact of desertification on women, their role in the management of natural resources and drylands, and the constraints they face

Gender and qualitative interpretation of data

Source(s): SDC, Government of Switzerland

Publication date: 2006

Number of pages: 70 p.

The aim of these matrices is to assist users to reach a more qualitative understanding in their reading and interpretation of quantitative data from a gender perspective.

Gender: the missing component of the response to climate change

Source(s): FAO

Publication date: 2006

Number of pages: 37 p.

This report analyzes the gender dimension of climate change and the policies enacted to mitigate and adapt to its impacts with the aim of developing gender sensitive approaches with regard to mitigation measures, adaptation projects and national regimes.

Let our children teach us!: a review of the role of education and knowledge in disaster risk reduction

Source(s): UNISDR

Publication date: 2006

Number of pages: 135 p.

This review examines good practices to reduce disaster risk through education, knowledge and innovation (including efforts to protect schools from extreme natural events).

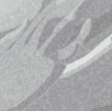
Women, girls, boys and men, different needs, equal opportunities: IASC gender handbook in humanitarian action

Source(s): IASC

Publication date: 2006

Number of pages: 112 p.

This handbook sets forth standards for the integration of gender issues from the outset of a new complex emergency or disaster, so that humanitarian services provided neither exacerbate nor inadvertently



put people at risk; reach their target audience; and have maximum positive impact.

Gender and disaster sourcebook: a sampler

Source(s): PERI

Publication date: 2005

This one-stop user-friendly electronic guide is aiming to help answer the following questions: What is the link between gender equality and disaster risk?

Living with risk: a global review of disaster reduction initiatives

Source(s): UNISDR

Publication date: 2004

Number of pages: 429 p.

This book provides guidance, policy orientation and inspiration, as well as serving as a reference for lessons on how to reduce risk and vulnerability to hazards and to meet the challenges of tomorrow.

Working with Women at Risk: Practical Guidelines for Assessing Local Disaster Risk

Source(s): International Hurricane Center Florida International

Publication date: 2003

Number of pages: 104 p.

This is a workbook for training community women to conduct hazard assessments and plan mitigation for their local neighbourhoods. The model was developed and tested in communities in the Dominican Republic, El Salvador, St. Lucia and Dominica.

Invest
Today
for a
Safer
Tomorrow

**International Strategy for
Disaster Reduction,
UNISDR**
Tel. :+41 22 917 8908/8907
isdr@un.org
www.unisdr.org

**Bureau for Crisis Prevention &
Recovery, UNDP**
One United Nations Plaza, DC1-20th
New York, NY 10017
Phone: 212 906 6711
bcpr@undp.org
www.undp.org/cpr/

IUCN Headquarters
Rue Mauverney 28
1196 Gland, Switzerland
+41 22 9990000
+41 22 9990002
mail@iucn.org
www.iucn.org

