

## TRAINING MODULE 2

# Gender, climate change adaptation and disaster risk reduction

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# 1

## *Purpose of the training module*

### **1A** *Rationale*

As the United Nations' lead development agency with extensive field experience, the United Nations Development Programme (UNDP) has implemented numerous innovative initiatives that support national-level work on gender equality and women empowerment. UNDP's work on gender is guided by the Beijing Platform for Action (BPFA), Convention on the Elimination of All Forms Discrimination against Women (CEDAW) and frameworks provided by the Sustainable Development Goals (SDGs).

UNDP Gender Team presents updated versions of 10 training modules and policy briefs on gender dimensions of climate change covering a range of themes and sectors. An additional set of knowledge products has also been added covering the gender and REDD+ interface. These knowledge products are designed to build capacity in member countries with respect to gender and climate change within the context of sustainable development. Their preparation has been made possible by contributions from the Government of Finland.

This second module in the series addresses gender dimensions of climate change adaptation and disaster risk reduction.

#### **Icon Key**



*Activity  
or Exercise*



*Link to other  
Modules*



*PowerPoint/video  
presentation*



*Readings*



*Important  
information*



*Timing  
indication*



*Internet  
link*

## 1B *Module structure and method*

This module provides basic information and learning tools needed to understand and advocate for the integration of gender perspectives into regional-, national- and community-level climate change adaptation and disaster risk initiatives. It covers the following topics:

- Integrated response to climate change adaptation and disaster risk reduction
- Gender dimensions of climate change adaptation and disaster risk reduction
- The need and options for gender-responsive climate change adaptation and disaster risk reduction.

Part II of this module outlines learning objectives and presents what users can expect to know when the training concludes. Part III spells out the key take-away messages, followed by Part IV, which presents the value of integrated disaster risk reduction and climate change adaptation in the quest to advance sustainable human development, and Parts V and VI, which address gendered vulnerabilities to climate and disaster risk and options for making the twin goals of climate change adaptation and disaster risk reduction gender-responsive. At the end of the training, users will have a strong understanding of the merits of integrated response to climatic and disaster risk in the context of sustainable human development, gender-related vulnerabilities to climatic and disaster risk and the positive and important roles that women play in climate change adaptation and disaster risk reduction and management efforts.

The module also presents case studies and other learning tools (e.g., hand-outs and group activities) to think through issues when designing gender-responsive actions to climate change adaptation and disaster risk reduction and to help facilitate use of the module. In addition, the module employs six pictures and icons to help make it user-friendly (see Box 1). The module includes several cross-references in order to encourage facilitators and participants to consult the other modules in this series.

Training based on this module can be delivered in three sessions:

- Session 1: Parts II and IV (1 hour)
- Session 2: Part V (1.5 hours)
- Session 3: Part VI (1.5 hours)

Total estimated session time: 4 hours

See Appendix B, Learning Tools, for a breakdown of time for different activities.



# 2

## Objectives

- *Understand the nexus between gender, climate change adaptation and disaster risk reduction within the broader milieu of sustainable human development*
- *Identify gender-based vulnerabilities to climate change and disasters as well as women's needs and positive contributions to adaptation and disaster risk reduction and management*
- *Propose solutions for gender-responsive adaptation to risks associated with the changing climate and disasters.*



# 3

## Key messages



Climate-related disasters are on the increase - it is urgent to look at disasters within the framework of the changing climate - adaptation and disaster risk reduction are indispensable pillars of the climate effort.

Disaster and climate risk management is an essential element for risk-informed, sustainable development. While the impact of such disasters on people's lives and livelihoods is per se deeply concerning, disasters can also undermine sustainable development and achievement of the Sustainable Development Goals (SDGs). It is imperative to adopt meaningful climate change adaptation and disaster risk reduction strategies in order to limit negative impacts on people's lives and livelihoods and, broadly, its progress towards the SDGs.

Climate change is not gender-neutral; women are disproportionately (and, often, more severely) affected by its impacts. Gender-based inequities lead women to face more adverse climate change impacts than men. The same holds true with disasters: women are particularly exposed to disaster risks and are likely to suffer higher rates of mortality, morbidity and post-disaster ruin to their livelihoods. Several underlying factors exacerbate women's vulnerability to the impacts of disasters, including limited livelihood options, restricted access to education and basic services and discriminatory social, cultural and legal norms and practices.

Women are under-represented in decision-making processes at local, national and international levels. Their needs and concerns are not often adequately integrated into development programming and policy. This is particularly distressing because well-intended adaptation and disaster risk reduction actions could lead to unintended adverse outcomes for women and girls. Investing in women as part of the climate change adaptation and disaster risk reduction effort can lead to greater returns across the SDGs and other, broader development objectives.

Women are key agents of change. Their unique knowledge is essential to ensure the effectiveness and sustainability of climate change adaptation and disaster risk reduction efforts; their full and effective participation is indispensable.

Ongoing adaptation (and mitigation) actions at all levels, including implementation of the Nationally Determined Contributions (NDCs) under the Paris Agreement and the National Adaptation Plans (NAPs) under the United Nations Framework Convention on Climate Change (UNFCCC) process, should fully integrate gender perspectives. These efforts need to address gender inequalities in a manner that addresses associated disaster risk challenges.



The analytical and advocacy tools, guidelines and case studies available on gender mainstreaming in climate change adaptation and disaster risk reduction, as well as development in general, need to be fully utilized.

Adaptation and disaster risk reduction efforts need to address the underlying factors of gender-based vulnerabilities (e.g., poverty and political marginalization). This is key for the success of the Paris Agreement, 2030 Agenda as well as the 15-year international blueprint on disaster risk reduction adopted as part of the Sendai Framework on Disaster Risk Reduction.



# 4

## *Integrated response to climatic and disaster risk for sustainable human development*

### *Learning objective:*

*Understand the nexus among gender, climate change adaptation, disaster risk reduction and their implications on sustainable development*

1. According to the Intergovernmental Panel on Climate Change (IPCC), many observed impacts of the changing climate such as sea level rise are happening more quickly than previously predicted, threatening coastal communities and critical infrastructure by increasing the frequency of disaster events, including flooding and storms. Similarly, the world's two major ice sheets are melting much faster relative to past decades (IPCC 2014a). Other impacts are being felt in all corners of the world – extreme weather events, heat waves and droughts have increased in frequency and intensity, often with damaging effect to agriculture, fishing and other livelihoods. Climate change can jeopardize gains made by the global community in important domains such as food security, access to health and education (UNDP 2015a; UNDP 2015b; Bierbaum et al. 2009; World Bank 2013). Unmitigated climate change could cause even more damage in the future – the following are examples of current and projected impacts:
  - Climate change is already hampering agriculture production by ruining crops through increased drought and flooding – it has already led to reduction yields by 1 percent to 2 percent in the last century and the prediction is that this will get worse (Weibe et al. 2015; IPCC 2014b; Gourджи et al. 2013).
  - Water scarcity, deforestation and land degradation could be worsened by climate change. These changes could exacerbate the effects of chronic environmental threats on livelihoods of marginalized communities that hit the poorest the most (UNDP 2015a). Changes on forest cover and land use under scenarios of high levels of warming, i.e., an increase in local mean temperature of 3°C to 4°C or higher, could result in 'large' negative impacts on farm yields and severe risks to food security.
  - Climate change impacts accelerate loss of vegetation, and thus desertification, which could continue to impact biomass energy production. Climate change can also have an indirect impact on energy systems – hydro-meteorological hazards (e.g., tropical cyclones) could trigger power failures by destroying energy infrastructures sited in coastal areas (Karekezi et al. 2009). To illustrate, in the Gulf Coast, home to U.S. oil and gas industries, hurricanes Katrina and Rita destroyed more than 100 oil platforms and damaged 558 pipelines in 2005 (USGCRP 2009).



- Water scarcity and drought in already dry regions are also likely to increase by the end of the century. (IPCC 2014b);



For an overview of gender and climate change, see TM 1

2. Climate-related disasters are increasingly a cause for deep concern. The paragraphs below (Para 3-5) provide a definitional backdrop to disasters and their interlinkages with vulnerability to climatic and disaster risk.
3. A disaster is a hazard that has materialized – often taking a toll on human life, the environment and the economy. In this module, the term ‘disaster’ refers to “severe alterations in the normal functioning of a community or a society due to hazardous physical events interacting with vulnerable social conditions, leading to widespread adverse human, material, economic, or environmental effects that require immediate emergency response to satisfy critical human needs and that may require external support for recovery” (Field et al. 2012).

### Box 1 Definitions

**Vulnerability:** *The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.*

**Hazard:** *A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage.*

**Capacity:** *The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.*

**Risk:** *The combination of the probability of an event and its negative consequences, often referred to by the following function: Disaster risk = hazard \* vulnerability*

**Maladaptation:** *Actions that may lead to increased risk of adverse climate-related outcomes, increased vulnerability to climate change, or diminished welfare, now or in the future.*

**Disaster risk reduction:** *The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment and improved preparedness for adverse events.*

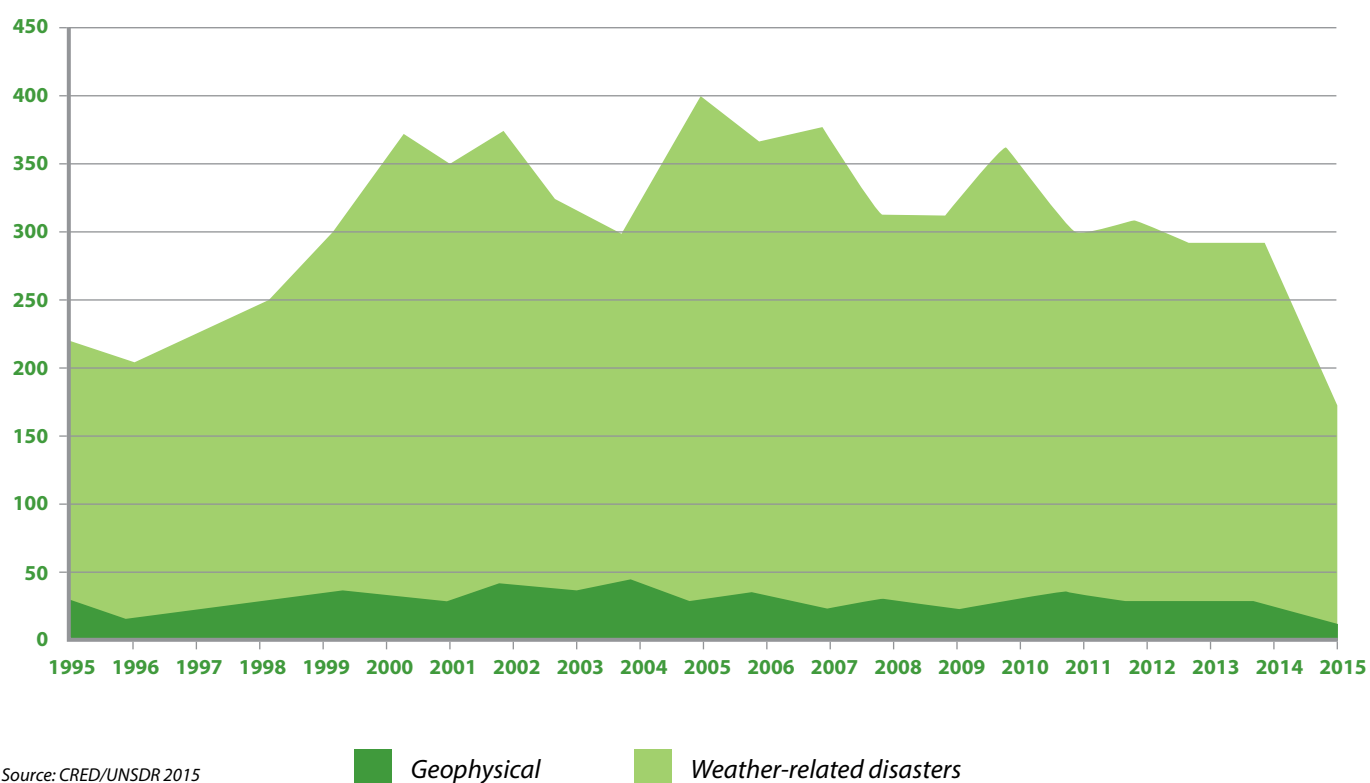
**Adaptation:** *Coping with those impacts of climate change that cannot be avoided*

*Sources: IPCC 2014c; IPCC 2014d; OXFAM 2011; Burton, Diringier and Smith 2006*

4. It is important to note that a disaster is not a direct result of natural hazards per se, but a product of “the combination of an exposed, vulnerable and ill-prepared population or community with a hazard event” (UNISDR 2008). There are, therefore, certain aspects of a disaster that need to be understood: exposure to a hazard (e.g., low lying areas vis-à-vis floods), vulnerability to a disaster risk and adaptive capacity (the capacity of an individual or a community to cope with the negative consequences of a given disaster). Disaster risk is a function of vulnerability and hazard that, in practical terms, may translate to loss of life, bodily injury, damage to property, disruption of social services and environmental degradation. Finally, the human and environmental toll from disasters can be reduced or managed (see Box 1 for key concepts on disasters and their management).
  
5. Disaster risk is on the rise globally, threatening to thwart years of progress on development and gains made towards sustainable development. Increasing vulnerability to disasters is attributable to an assortment of factors, including poor urban development, overdependence on certain livelihoods and ecosystem degradation and impending climate change impacts (UNISDR 2011a). Although important advances continue to be made in reducing disaster risks, disaster events are on the rise (see Figure 1; Box 2) and the impact of disaster situations is still considerable (see Figure 2). As illustrated in Figure 1, almost 90 percent of deaths occur with disasters of hydro-meteorological origin (originating from meteorological, hydrological or climate phenomena) (Carvajal- Escobar et al. 2008; UNESCO 2012).

**FIGURE 1** Disaster Trends

*Trends in the number of disasters by major category (weather-related & geophysical) (1995–2015)*



Source: CRED/UNISDR 2015

## Box 2 Climatological disasters on the rise – data from 2015

2015 was remarkable in many ways. Not only was it the year when the Paris Agreement and the Sendai Framework for DRR were adopted, it was also the hottest year in recorded history (before 2016) and the year of the highest number of climatological disasters in a decade.

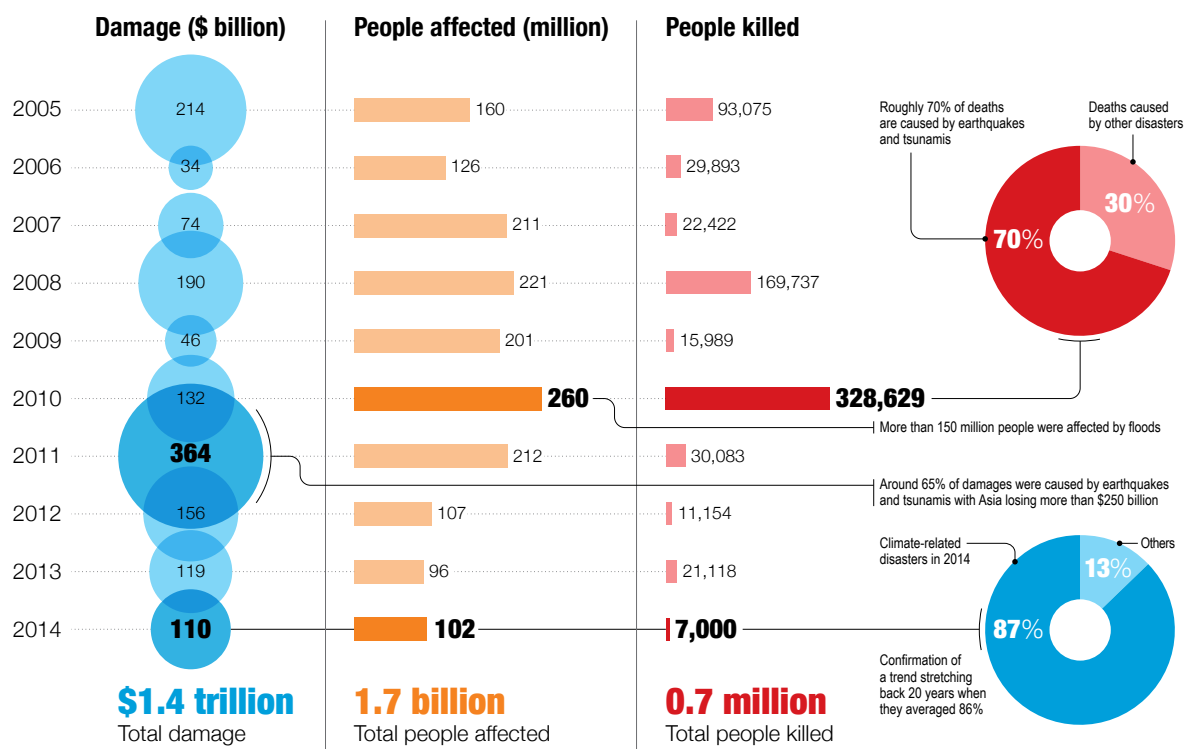
*“Over the last twenty years, the overwhelming majority (90%) of disasters have been caused by floods, storms, heat waves and other weather-related events. In total, 6,457 weather-related disasters were recorded worldwide by EM-DAT, the foremost international database of such events. Over this period, weather-related disasters claimed 606,000 lives, an average of some 30,000 per annum, with an additional 4.1 billion people injured, left homeless or in need of emergency assistance.” (Source: CRED/UNSDR 2015: 5)*

*“In 2015, the number of climatological disasters (45) was the highest since 2005, taking a share of 11.9% in all natural disasters occurrence, above the share of 8.3% per year on average for 2005-2014. The number of droughts (34) was, by far, the highest since 2005, being 50% above the annual average of previous decade (24). The number of wildfires (11) was the third highest, but far from the peak of 18 in 2007. Among the 19 countries which experienced at least 5 droughts between 2005 and 2014, 10 knew a new drought in 2015. In 2015, with 3 wildfires Australia found its peak of 2006 while, with the same number of wildfires, the USA experienced one of their bad years but remained below the 2013 peak of 5 wildfires.” (Guha-Sapir et al. 2016:27)*

*“Across continents, Asia was most often hit (44.4%), followed by the Americas (25.5%), Africa (16.5%), Europe (7.2%) and Oceania (6.4%).” (Guha-Sapir et al. 2016:33)*



**FIGURE 2** Economic and Human Impacts of Disasters, 2005-2014



Source: UNISDR 2015a

6. The adverse effects of climate change and disasters can be mutually reinforcing. Climate change can contribute to extreme weather and climate events such as tropical cyclones, floods and heat waves by increasing their intensity and frequency (Field et al. 2012). The adverse impacts of climate change on livelihoods and ecosystems have the effect of diminishing communities' adaptive capacities and increasing their vulnerability to disasters (UNISDR 2008). These dual threats will decrease communities' capacity to cope with shifts, hazards and shocks, especially in poor developing countries (UNISDR 2011a).
7. During 1995-2015, over 90 percent of disasters were caused by floods, storms, heat waves and other weather-related events. This left 606,000 people dead and 4.1 billion people injured, homeless or in need of emergency assistance (CRED/UNSDR 2015). According to the UN Secretary-General's recent report, the cost of disasters, mainly climate-related, has reached an average of US\$250 to US\$300 billion a year (UN 2015). -During 2003-2013, disasters cost nearly US\$1.5 trillion in global economic damage (FAO 2015).
8. There is a growing body of evidence linking disaster events in the last few years to climate change. According to a recent report, involving 32 groups of scientists from around the world, climate is said to have played a role in 14 of 28 storms, droughts and other extreme weather events in 2014, including tropical cyclones in the central Pacific, heavy rainfall in Europe, drought in East Africa and stifling heat waves in Australia, Asia and South America (see Herring et al. 2015).

9. The 2030 Agenda for Sustainable Development has underscored the critical interface between climate change and disaster risk reduction, especially within the context of urban settlements (SDG 11). Similarly, the Sendai Framework for Disaster Risk Reduction 2015–2030, a successor instrument to the Hyogo Framework for Action 2005–2015, has adopted a disaster risk management approach that aims to broadly strengthen resilience and adaptive capacity to climate-related hazards, emphasizing the need for dovetailing climate change adaptation and disaster risk reduction efforts (See Box 3).

### **Box 3** Sustainable Development and Disasters

*Disaster risk reduction may be viewed as a cross-cutting issue in sustainable development. The 2030 Agenda for Sustainable Development contains 25 targets related to disaster risk reduction in 10 out of the 17 SDGs. Furthermore, even where disaster risk reduction language is not explicitly mentioned, numerous goals and targets can contribute to reducing disaster risk and building resilience, including targets related to promoting education, upgrading infrastructure in urban settlements and promoting health (UNISDR 2015b).*

*The relation between disaster risk reduction and sustainable development was also recognized in the Hyogo Framework for Action 2005-2015, adopted in 2005. It observes that “disaster risk reduction is a cross-cutting issue in the context of sustainable development and therefore an important element for the achievement of internationally agreed development goals.” Its successor, the Sendai Framework for Disaster Risk Reduction 2015-2030, sets out targets for the post-2015 development agenda, including a substantial reduction in mortality and in the numbers of people affected by disasters, economic losses and damage to critical infrastructure. SDG 11 (especially SDG 11.5 and 11b) perhaps shows the sustainable development-disasters nexus more vividly than the other SDGs.*

#### **SDG 11 “Make cities and human settlements inclusive, safe, resilient and sustainable”**

*The following suggested targets and indicators are associated with the SDG 11:*

- 11.1** *By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums*
- 11.2** *By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons*
- 11.3** *By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries*
- 11.4** *Strengthen efforts to protect and safeguard the world’s cultural and natural heritage*



### Box 3 Sustainable Development and Disasters

- 11.5** *By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations*
- 11.6** *By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management*
- 11.7** *By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities*
- 11.a** *Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning*
- 11.b** *By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels*
- 11.c** *Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials*

Sources: UN 2015a

- 10.** Underdeveloped countries tend to be disproportionately exposed to climate-related disaster risks. Exposure to climate-related disaster risks is a function of, among other things, lack of resilience and limited capacity to absorb disaster situations. In general, small island developing states, land-locked developing countries and least developed countries have diminished capacity to absorb and recover from disaster impacts (Corrales and Miquelena 2008; Noy 2009).
- 11.** With climate change, the magnitude and frequency of stresses and shocks is changing and approaches such as social protection, disaster risk reduction and climate change adaptation will be needed to bolster local resilience and supplement people's experience (Davies et al. 2009). Integration is important to address vulnerabilities of the most vulnerable segments of society (especially women) because, among others, of the economies of scale advantage it provides – i.e., it helps maximize efficient use of resources in tackling climatic and disaster risk (see Box 4).



#### Box 4 Practical Lessons Learned

##### *Rationale for integration of disaster risk reduction and climate change adaptation:*

- *Easing the burden of programming development assistance*
- *Minimizing duplication of effort and redundancies*
- *Reducing potential conflicts in policy development*
- *Making efficient use of scarce resources*
- *The increasing recognition, especially at the community level, that there is little practical difference between the two*

##### *Barriers to integration of disaster risk reduction and climate change adaptation:*

- *Capacity constraints (related to lack of coordination, communication, political will, insufficient funds and absence of expertise)*
- *Separate global and regional frameworks for disaster risk reduction and adaptation*
- *Perceptions of development practitioners that disaster risk reduction and adaptation are not valuable*
- *Difficulty quantifying the benefits of disaster risk reduction and climate change adaptation.*

##### *Approaches to address barriers and facilitate integration:*

- *Improved access to practical weather and climate change information*
- *Strong enabling environment and enhanced communication to practitioners in other fields and to the broader public*
- *More emphasis on bottom-up approaches*
- *Information support for decision-making (scientific and economic).*

*Sources: Extracted from UNISDR 2010*

12. Without the input of women, risk reduction and climate change adaptation strategies will not be designed for the entire community. Parts V and VI look into gendered vulnerabilities to climatic and disaster risk and the need for designing adaptation options that include women in preparedness and response efforts, including programming and decision-making and policymaking for disaster and climatic risk.



*For background on the gender-climate change nexus, see TM 1*

## *Summary questions*

- *What is the relationship between disasters and sustainable development? Do we have an SDG on disaster risk reduction?*
- *How do climate change and disasters reinforce each other? How does climate change pertain to the discussion on disaster risk reduction?*
- *What are the key challenges and opportunities in addressing climate and disaster risk in an integrated manner?*

# 5

## *Gender dynamics around adaptation and disaster risk reduction*

### *Learning objective:*

*Understand how gender dimensions of disaster risk reduction and climate change adaptation interface in terms of the role that women play in promoting adaptation and of the unique vulnerabilities they face as a result of structural gender imbalances.*

13. Gender is an important dynamic in climatic and disaster risk reduction efforts. The reasons are essentially twofold: (1) the agency of women is essential for tackling the perils of climate change and disaster risk; (2) despite significant strides that have been made in addressing gender inequalities over the years, women are still among the most marginalized groups of society and are particularly vulnerable to current and future climate change and disaster risk.
14. While women's vulnerability is almost always assumed, their unique capacities and contributions to adaptation and across the disaster management cycle (mitigation, preparedness, response and recovery) have not been well documented (Brandshaw and Fordham 2013). In fact, women's individual and collective knowledge and experience in natural resource management and other societal activities at the household and community levels equip them with unique skills that benefit adaptation and disaster efforts across scales and sectors (WEDO 2007). For example, during a drought in the small islands of the Federated States of Micronesia, the knowledge of island hydrology that the women had as a result of their land-based work enabled them to find potable water by digging a new well. Similarly, in Honduras, post-Hurricane Mitch (1998), women helped save lives and assets as the water rose (Brandshaw and Fordham 2013) and, as part of the recovery efforts, they led and organized community-based work to rebuild homes and other properties (Field et al. 2012; Forino et al. 2015). (See Box 5 for example of women's leadership in disaster preparedness)
15. A growing body of evidence in international development establishes that gender parity at the household and community levels leads to better development outcomes. For example, the McKinsey Global Institute (MGI) recently calculated the economic impact of closing the gender gap in labour markets in 95 countries (covering 93 percent of the world's female population and 97 percent of its GDP) and concluded that, if women were guaranteed identical rights, national GDPs of each country would increase by at least 9 percent and global GDP by as much as US\$28 trillion, or 26 percent (MGI 2015). Similarly, studies show that countries with higher representation of women in congress/parliament are more likely to set aside protected land areas and to ratify multilateral environmental agreements (UNDP 2011).



## Box 5 Women's Leadership in Disaster Preparedness – Tajikistan

*Oxfam runs a disaster preparedness programme in an area vulnerable to floods, landslides and earthquakes. In the rural areas where Oxfam works, cultural norms dictate that women's access to education and paid work is low and their community participation and mobility are very limited.*

*More than half of the male population works outside the country, so it is essential to put women first on the disaster risk reduction agenda if it is to prevent deaths and considerable economic losses in these already impoverished areas.*

*A core element of this programme is encouraging women to be actively involved in preparing the community for future hazards and in planning rescue responses.*

### *Practical actions taken*

*With no electricity and no TV in Shokhindo, volunteers are the only source of information on disasters. Disaster risk reduction training was developed, enabling women to become volunteers in a project to build more disaster-resilient communities.*

*Female trainers and community mobilizers run women-only groups to build women's confidence, encourage them to voice their concerns and deliver training in specific skills such as first aid and disaster management. These women then go on to train other women in their homes. The impact of this disaster preparedness work is significant.*

### *Benefits generated*

*The project reached over 24 000 people, more than half of whom were women highly exposed to natural disasters in the Rasht Valley.*

*By addressing the central needs of communities at risk and the authorities in charge of disaster preparedness and response, the project reduced vulnerability and exposure to risks for communities in six watersheds of the Rasht Valley.*

*In a recent landslide where 35 households were at risk of being buried, a female community mobilizer had prepared the community so well that the risk of imminent landslide was noticed, a warning given out, the area evacuated, and no lives were lost. Forty years earlier, 134 people had died from a similar landslide in the village.*

*Source: European Commission 2015*

16. Vulnerability is a function of socio-economic, geographic, demographic, cultural, political and environmental factors. Different groups are thus differentially vulnerable based, in part or in whole, on their gender, age, social status, health and wealth/poverty; on whether they have a disability; and on other sociocultural characteristics (Field et al. 2012). Climate change is disproportionately harsh on vulnerable groups, a large majority among them members of rural communities, particularly women. The reasons therefore are manifold, but fall broadly within the stated vulnerability characteristics. Women are often poorer, receive less education and are excluded from political, community and household decision-making processes that affect their lives (WEDO 2007). Such economic and social inequities translate into women possessing fewer assets and meagre means to cope with the negative effects of the changing climate.
17. The tendency of women and girls to depend more on natural resources for their livelihoods also lends itself to increased vulnerability. For instance, climatic stress on water and forest resources often leads to women having to travel longer distances for a longer time to fetch water or wood, exposing them to health risks (WHO 2011) and limiting their prospects for engaging in high-return ventures such as education, politics and business. (UNDP 2011; FAO 2011).
18. Similarly, while disasters pose threats to everyone in their paths, they often have disparately harsher impacts on women. Studies have shown that disaster fatality rates are much higher for women than for men. This is due, in large part, to gendered differences in the capacity to cope with such events and insufficient access for women to information and early warnings (Ikeda 1995; Neumayer and Plümper 2007; Oxfam 2005). For example, women accounted for 61 percent of fatalities caused by Cyclone Nargis in Myanmar in 2008, 70 percent to 80 percent in the 2004 Indian Ocean tsunami and 91 percent in the 1991 cyclone in Bangladesh (Castañeda, and Gammage 2011). This gendered asymmetry in vulnerability to disaster risk is rooted primarily in geographic, economic, social, educational/informational and political power imbalances in societies.
19. These vulnerability factors translate into women having lower levels of access to economic resources in general and, in particular, lower levels of access to education and information that would allow them to read and act upon disaster warnings (Aguilar et al. 2015). Women also tend to live by, and work closely with, natural resources and geographical features that are most affected by disasters and shocks (e.g., marginal lands and informal settlements); men also live in these areas, but women are less likely to be able cope with the shocks. Further, cultural norms on gender roles sometimes limit women's ability to make snap decisions in disaster situations and, in some cases, the clothes they wear and/or their unpaid care work (of children, the sick and/or the elderly) and household responsibilities may restrict their range of movement to escape disasters (particularly water-related hazards) (see Box 6: Gender differentiated vulnerability to climate and disaster risk).
20. A related obstacle for women is that climate change adaptation and disaster risk reduction response could unintentionally worsen socio-economic inequalities. While there is almost unanimous consensus on climate change and its damaging impacts, the specific methods and ingredients required to implement 'good' adaptation on the ground is far from clear (Berrang-Ford et al. 2011; Magnan 2014) Thus, it is not enough that we make a concerted response to climate change—how we respond is just as important. Adapta-

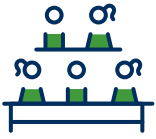
tion (and disaster risk reduction) policies, plans and projects that do not take women's issues and needs into account may unintentionally exacerbate existing gender inequities. The UNFCCC Technology Executive Committee, for example, notes that a lack of careful planning in adopting technologies in support of agricultural adaptation (e.g., agricultural machinery that may not be gender-friendly) increases the risk of social/economic-maladaptation (IPCC 2014d) (UNFCCC 2014). Similarly, diverting fresh water to areas where there is a water shortage (through dikes, water transfers or irrigation canals) may have the unintended consequence of lengthening and intensifying women's productive and reproductive working day by placing water sources in distant places (IPCC 2007). These examples underscore the need for proper consideration of the interests and contributions of all members of society, especially women and other vulnerable groups, in the design, planning, financing and implementation of adaptation actions.

### **Box 6** *Gender statistics around vulnerability to climate and disaster risk*

- *Women and children are 14 times more likely than men to die during a disaster.*
- *The Human Development Index (HDI)\* value is lower for women than for men.*
- *Globally, women earn 24 percent less than men. In Latin America, in Mexico, women earn an average of 20 percent less than men; in Argentina, 12 percent less; and, in Brazil, 25 percent less.*
- *If all countries were to match the progress towards gender parity of the country in their region with the most rapid improvement on gender inequality, as much as US\$12 trillion could be added to annual global GDP growth in 2025.*
- *In the 2004 Asian tsunami, women in many villages in Aceh, Indonesia, and in parts of India, accounted for over 70 percent of the dead.*
- *More women than men died during the 2003 European heat wave. In France, most deaths were among elderly women.*
- *During Hurricane Katrina, most of the people trapped in New Orleans were African-American women and children, the poorest demographic group in the United States.*
- *A study by the World Bank indicates that 155 of the 173 economies it covered (one in nine) have at least one law impeding women's economic opportunities.*

\* *HDI is a summary measurement of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living*

*Sources: UNDP (2015a); UNDP (2015b); UNFPA and WEDO (2009); World Bank Group (2015); MGI (2015)*



## ***Summary questions***

- *What are some of the gender-based constraints that women face in disaster situations?*
- *How might adaptive and disaster risk reduction efforts inadvertently exacerbate gender inequities?*
- *How does women's empowerment advance adaptation and disaster risk reduction? Give examples of best practices of women's leadership in climate change adaptation and disaster risk reduction.*

# 6

## *Making adaptation and disaster risk reduction gender-responsive*

### *Learning objective:*

*Identify appropriate policy responses and strategies to address gender gaps in adaptation and disaster risk reduction*

21. As discussed in Part V, climate change and disasters can undermine sustainable human development. Proper adaptation and disaster risk reduction and management strategies can reduce risks to human life and property, ultimately benefiting society as a whole. Because policies and actions focused on adaptation and disaster risk reduction address similar concerns, it is important to cultivate synergies and complementarities between the two. Box 4 (Part IV) provides the rationale for and benefits of an integrated approach to climate change adaptation and disaster risk. Such integration is also crucial to provide concurrent benefits for social systems coping with challenges posed by climate extremes and climate change as it allows for efficiencies in the utilization of often scarce resources.
22. Building resilience to risks and addressing underlying vulnerability are increasingly being accepted as a unifying goal for climate change adaptation/mitigation, disaster risk management and poverty reduction. The Sendai Framework for Disaster Risk Reduction 2015–2030, adopted on 18 March 2015 at the Third UN World Conference in Sendai, Japan, is one of the highest-profile endorsements of the need for an integrated approach to disaster and climatic risk. There is a lot of merit in ensuring that adaptation and disaster risk management efforts are integrated at the national level to increase policy cohesiveness.
23. Prudent policy and planning for reducing and managing climatic and disaster risks would save lives and be a useful tool for advancing general socio-economic growth. From the perspective of gender equality and women's empowerment, any effort addressing adaptation and disaster risk reduction policy needs to be cognizant that (a) climate change and disasters can reinforce, perpetuate and increase gender inequities and that (b) women's contributions greatly enhance adaptation and disaster reduction and management policies and actions (see Box 7 on gender references in the Sendai Framework).



## Box 7 Gender issues in context - the Sendai Framework

*The Sendai Framework for Disaster Risk Reduction (2015–2030), the successor agreement to the Hyogo Framework for Action (2005–2015), was adopted at the 3<sup>rd</sup> UN World Conference on Disasters Risk Reduction in March 2015. The Framework is a 15-year international blueprint for saving lives and reducing the economic impact of natural and man-made hazards.*

*One of the key distinctions of the Sendai Framework with past frameworks is its emphasis on the need for a paradigm shift from managing disasters to managing risk and to addressing the underlying causes and drivers of disasters. In this spirit, the Framework recognizes the significance of gender-dimensions in disaster risk reduction and calls for inclusion of all members of the society. It calls for “a gender, age, disability and cultural perspective in all policies and practices; and the promotion of women and youth leadership; in this context”. Furthermore, the Framework underscores that **“women and their participation are critical to effectively managing disaster risk and designing, resourcing and implementing gender-sensitive disaster risk reduction policies, plans and programmes; and adequate capacity-building measures need to be taken to empower women for preparedness as well as build their capacity for alternate livelihood means in post-disaster situations.”***

*See UN, Sendai Framework, 2015*

24. Risk is the function of the probability of an event and its consequences – socio-economic status affects these consequences. In the gender context, women and girls are not inherently predisposed to climatic and disaster risks; their heightened exposure to risk is attributable to poverty and inequitable socio-political structures and gender-blind policies and actions across scales (see Part V). To address the gender imbalances that create and/or contribute towards such risks, concerted effort needs to be exercised through appropriate social, political and economic policies and actions at all levels. At the global level, the Sendai Framework for Disaster Risk Reduction (2015-2030), as well as many national plans and policies on disaster risk reduction (Box 8 provides an example of how the African Adaptation Project sought to catalyse gender mainstreaming in climate change at the national level), have recognized the importance of better understanding of the gender aspects of disaster risk reduction efforts.

## **Box 8** Ensuring gender equality is part of the integrated responses to disaster and climate risks

*The Integrated Climate Risk Management Programme (ICRMP), supported six countries (Honduras, Armenia, Kenya, Uganda, Nepal, and Indonesia) in: (i) formulating gender-responsive integrated climate risk management frameworks, which promote linkages between disaster risk reduction and climate change adaptation and mainstreaming into national and sector-specific development plans; (ii) strengthening and expanding the evidence base for climate risk management using gender- and sex-disaggregated information; (iii) building risk reduction and adaptive capacities of institutions, administrative/sectoral agencies and communities, which include women organisations and associations; and (iv) implementing gender-responsive climate risk management interventions to build resilience. For example:*

*In Indonesia, UNDP supported the government to incorporate gender concerns in the formulation of its DRR-CCA framework and policies through gender reviews and participation of the Ministry of Women's Affairs in the DRR National Platform. UNDP supported the Government of Indonesia to improve disaster and climate risk assessments by developing guidelines for gender analysis along with collecting gender-disaggregated data based on UNDP piloting experience in conducting climate change vulnerability assessment and developing urban climate risk management plan in the cities of Kupang and Makassar.*

*In Uganda, a participatory study, 'Better understanding men and women's vulnerability to disaster and climate risks in Uganda', was conducted. The study analysed the differentiated vulnerabilities of women and men to climate and disaster risks, their coping mechanisms in the face of disasters, and their roles and participation in disaster risk management measures. The findings and recommendations from the study have been used as Uganda proceeds with the completion of the Resilience and DRM Strategic Framework and Investment Programme (to operationalize the National Development Plan 2015-2020) and in the development (and eventual passing) of a Resilience and DRM Act.*

*In Nepal, UNDP assisted in improving awareness of and understanding of the importance of addressing gender concerns in DRR-CCA policies and programmes through training and conducting gender analyses within climate risk assessments. The purpose of this was to better understand the gender-related impacts of climate change in order to develop appropriate DRR and CCA solutions to gender-related vulnerabilities.*

*Source: Integrated Climate Risk Management Programme (ICRMP) Cumulative Report, UNDP, 2016*

25. Gender equality is a fundamental human right. It is also a potent means for development, poverty alleviation and eradication and environmental sustainability. Mainstreaming gender into policy processes, programmes and projects can help ensure that such processes equitably benefit women and men while allowing optimal use of the unique knowledge and skills of women and men. By the same token, gender mainstreaming can advance social policy (including gender equality) while ensuring greater returns on adaptation and disaster risk reduction investments.

*Gender mainstreaming is an integrated approach to facilitate equitable participation of women and men to address their strategic and differing needs. The approach uses a gender lens to understand the social processes of adaptation. A **gender approach** should be integrated into the entire policy planning and implementation process and should include: (a) gender analysis; (b) disaggregation of all data by sex; (c) gender-responsive indicators to measure results benefits and impact; (d) building capacity and strengthening sustainable development strategies and institutional frameworks; and (e) documentation and dissemination of best practices to continually promote learning and innovation.*

26. There are a number of analytical tools and methods for mainstreaming gender. Some of these tools and methods have broad application, while others have specific relevance (e.g., disaster risk reduction and management, adaptation and energy). Some focus on vulnerability and impact assessment and stakeholder analysis and management, others on decision-making in adaptation (avoiding maladaptation) (Magnan 2014) and climate risk communication. Box 9 lists the critical elements of gender mainstreaming in adaptation and disaster risk reduction.



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## Box 9 Critical elements of gender mainstreaming in adaptation and disaster risk reduction

### Common elements

- *Include gender perspectives in adaptation and disaster reduction efforts at the national, regional and international levels—including in policies, strategies, action plans and programmes.*
- *Build the capacities of national and local women's groups' and provide them with a platform to be heard and to lead.*
- *Include gender-specific indicators and data disaggregated by sex and age to monitor and track progress on gender equality targets.*
- *Ensure that climate finance is responsive to vulnerability to climate change and disaster risk, especially within marginalized groups of society, including poor women and men. To this end, undertake a gender analysis of applicable budget lines and financial instruments to determine the differentiated impacts on women and men. More broadly, engage with existing climate finance frameworks, networks and instruments at all levels to ensure more meaningful integration of gender perspectives in disaster risk reduction and adaptation efforts.*
- *Consider the reallocation of resources, if relevant, to achieve gender equality outcomes from the actions planned.*
- *Include women's traditional knowledge and perceptions in the analysis and evaluation of adaptation and disaster risks, coping strategies and solutions; analyse climate change data (e.g., on desertification, floods, drought, deforestation) with a gender-sensitive perspective and collect sex-disaggregated data.*
- *Increase women's participation and representation in all levels of decision-making processes.*

### Elements specific to disaster risk reduction

- *Take gender-aware steps to reduce the negative impacts of disasters on women, particularly in relation to their critical roles in rural areas in the provision of water, food and energy (i.e., provide support, health services, information and technology).*
- *Ensure that women are being visibly engaged as agents of change at all levels of disaster preparedness, including in early warning systems, education, communication, information and networking opportunities.*
- *Consider the level of women's access to technology and finances, health care, support services, shelter and security in times of disaster.*

### Elements specific to adaptation

- *Address gender differences in capabilities to cope with climate change adaptation. Specifically, make women's equal access to information, credit and other productive and reproductive resources a priority.*
- *Develop and apply gender-sensitive criteria and indicators for monitoring and evaluation of the results of ongoing adaptation actions.*



## Box 9 Critical elements of gender mainstreaming in adaptation and disaster risk reduction

### Tools for gender mainstreaming

There are practical resources to support gender mainstreaming in disaster risk reduction and climate change adaptation; the following are relevant examples of UNDP tools and experiences:

- *Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines – UNDP (2009);*
- *Gender, Climate Change and Community Based Adaptation Guidebook – UNDP (2010);*
- *UNDP Gender Responsive National Communication Toolkit – UNDP (2015);*
- *Women’s empowerment in the drylands - Thematic paper series and synthesis – UNDP, UNCCD (2015);*
- *Filling Buckets, Fueling Change - Ensuring Gender-Responsive Climate Change Adaptation – UNDP (2016);*
- *Integrating Gender in Disaster Management in Small Island Developing States: A Guide – UNDP (2013);*
- *Enhancing Gender Visibility in Disaster Risk Management and Climate Change in the Caribbean – UNDP (2009);*
- *Gender Equality in National Climate Action: Planning for Gender-Responsive Nationally Determined Contributions – UNDP (2016);*

27. Disaster risk reduction and adaptation are likely to be more effective if and when they are anchored in development planning (UNISDR 2011b). This is primarily because the risk factors associated with climate-related disasters are a result of development processes that expose people and assets to climate-related hazards and do little to reduce their vulnerabilities. Assorted policies need to be put in place to proactively reduce vulnerabilities, increase resilience and enhance capacity to manage risks, especially to women and other exposed demographics.
28. Resources, including climate finance for adaptation and disaster risk reduction, should be properly used to strengthen the risk-governance capacities of those countries most challenged to adapt (UNDP 2011c). In this regard, effort must be made to ensure that analysis and planning for adaptation and disaster risk reduction capacity development are prioritized equitably for men and women. Similarly, budget allocation for disaster risk reduction implementation across scales and sectors should be prioritized for action that benefits women. In addition, financial risk-sharing schemes need to be gender-sensitive and accessible and appropriate to the needs and resources of women and men facing disaster risk.



For more information on gender and climate finance, see TM 5



29. Continuous effort is needed to progressively tackle the underlying risk factors that emanate from skewed processes that undermine women. Among other things, attempts should be made to promote diverse livelihoods options for women in order to increase their resilience to hazards and to ensure that risks faced by women are not exacerbated by inappropriate development policies and practices.
30. Women need to be meaningfully involved in identifying and monitoring risks, including developing risk and hazard maps and data, identifying gender-specific aspects of risk and vulnerability and crafting the responses to risk (including establishing early warning systems with gender-sensitive communication alerts, media and technology). Disaster preparedness and response plans should take account of gender-differentiated vulnerabilities and capacities. Women must be fully involved in community disaster management committees, disaster response drills and related activities in ways that underscore the importance of women as key agents of change.
31. Vigorous, pro-poor and gender-sensitive planning and implementation are a winning pathway for nurturing sustainable and resilient livelihoods. Climate change adaptation and disaster risk reduction plans and programmes should aim to build up the asset base of women, promote their participation in the planning and execution of these activities and enhance their empowerment in society. Women are still among the most marginalized groups of society – they typically have less access to the land, credit and extension services, which has cumulative effect on their adaptive capacity to cope with events like droughts and floods (see Part V and Box 6). On the other hand, women’s unique knowledge and expertise concerning environmental management can contribute to innovative solutions that promote adaptation and disaster risk reduction.

## Summary questions

- *What do we mean by ‘gender approach’ to dealing with climatic and disaster risk?*
- *Provide a few examples of the critical elements of gender mainstreaming common to adaptation and disaster risk reduction.*
- *What is gender mainstreaming? How would you mainstream gender into programming and policy in adaptation and disaster risk reduction?*

1. See Article 7 and Article 14 of the Paris Agreement (FCCC/CP/2015/L.9/Rev.1). The cycles on adaptation in the Paris Agreement echo the provisions on cycles of improvement for mitigation and are designed to promote effective adaptation action over time. Accordingly, countries are required to submit and update their adaptation priorities and actual implementation every five years.

32. Global climate efforts have been gradually shifting towards a more balanced approach on adaptation and mitigation. Thus, the Paris Agreement on Climate Change seeks to limit the global temperature rise to 2°C (and strives towards a 1.5°C limit), but it also puts adaptation on par with mitigation, among other issues, by establishing a global goal on, and cycles for, improvement on adaptation.<sup>1</sup> Meanwhile, disaster risk reduction efforts are increasingly the centre of global, national and local policy attention as a ‘no-regret’ investment that protects lives and livelihoods.
33. Disaster and climate risk management is an essential element for risk-informed, sustainable development. The degree to which we succeed in our efforts in dealing with disasters and immediate and slow-onset climate impacts will affect our ability to achieve the lofty aspirations set by the SDGs. It is therefore important to integrate efforts geared towards building climate change and disaster resilience across the post-2015 agenda on sustainable development and low carbon growth. Thus, the Sendai Framework has adopted a disaster risk management approach that aims to broadly strengthen resilience and adaptive capacity to climate-related hazards and natural disasters, emphasizing the need for dovetailing climate change adaptation and disaster risk reduction efforts.
34. In both domains (adaptation and disaster risk reduction), there is increasing recognition of the need for gender-responsive action in response to climatic and disaster risk. Gender equality and women’s empowerment are key to the success of all post-2015 multilateral agendas, including the 2030 Agenda, the Paris Agreement, the Sendai Framework and all future actions on reducing climatic and disaster risk.
35. Pro-poor and gender-sensitive planning and implementation of adaptation and disaster risk reduction efforts are a good pathway for fostering sustainable and resilient livelihoods. Such efforts should aim to build up the asset base of women, promote their participation in the planning and execution of these activities and enhance their empowerment in society.
36. Climate change adaptation and disaster risk reduction actions could lead to maladaptation, unintentionally worsening existing socio-economic inequities. Efforts targeting climate and disaster risk should be attuned to the varied needs and interests of poor and marginalized groups of society, especially women, to ensure that these efforts do not inadvertently worsen the status quo. Promoting diversification of economic and/or livelihood opportunities of the poor and adoption of women-friendly technology are examples of gender-responsive disaster risk reduction and adaptation planning. Existing systems of climate finance (such as the Green Climate Fund) could promote integrated adaptation and disaster risk reduction solutions that also simultaneously advance social development.

37. Women bring unique capabilities and knowledge to the adaptation and disaster risk reduction efforts that could lead to greater returns for environmental sustainability across SDGs. Incorporating gender perspectives into adaptation and disaster risk reduction and management policy and projects through improved collaboration among all members of society, including men and women, would lead to the greater equitability, effectiveness and sustainability of adaptation and disaster risk reduction efforts. Effort should be made therefore to mainstream gender into adaptive efforts as well as through all phases of disaster reduction (see Box 9).
38. Adaptation and disaster risk reduction is a process—there is a need for continuous assessment and realignment of goals and priorities. The empowerment of women and of poor and marginalized groups should be seen as one crucial goal in the monitoring and evaluation of projects designed to reduce climatic and disaster risk. Current adaptation and disaster risk reduction efforts at all levels (such as National Adaptation Programmes of Action, National Adaptation Plans, Intended Nationally Determined Contributions, Disaster Risk Management National Plans, etc.) should be subjected to persistent reviews with an eye towards improving our understanding of climate and disaster risk reduction pathways that empower women and lead to climate-resilient development.
39. The success of the Paris Agreement, the new 2030 Agenda for the SDGs as well as the 15-year international blueprint on disaster risk reduction agreed in Sendai will depend on upholding gender equality across scales and sectors. Appreciating, engaging and promoting women's unique capacities in adaptation and disaster risk reduction would allow decision makers to pursue policies that build resilience in communities while also remedying gender injustice.

# A

## Appendix A: Case studies

### CASE 1 *Agricultural risk management (Bolivia)*

The Bolivian altiplano, or high-altitude plains, are a harsh, cold and arid climate for agriculture, where innovative methods are needed for survival. In the Aymara language of the communities surrounding Lake Titicaca in Bolivia, '*yapuchiri*' means 'sower' and refers to local specialist vocational farmers dedicated to agricultural learning. In this initiative, traditional agricultural and climatic knowledge was consolidated in groups of *yapuchiris* who were supported by Intercooperation to sell technological and financial services to local farmers. This has resulted in significant reduction of crop losses from drought, hail, frost and flooding and has also stabilized market access for local crops. Female *yapuchiris* have taken a specific leading role in negotiating long-term market access for local produce.

#### *How it promoted disaster risk reduction and adaptation integration*

This initiative has strengthened local capabilities in disaster risk management by consolidating and spreading indigenous knowledge through local experts. This has reduced vulnerability to this harsh area's hydrometeorological hazards, particularly frost, rain and hailstorms, and, conversely, extreme heat and dryness, which are predicted to intensify due to climate change. The *yapuchiris*' increased outreach to communities in the face of climate shifts will prove a significant step in increasing the region's resilience to these changes. The inclusion of women's expertise in the *yapuchiri* system has been vital for transferring agricultural success into stable livelihoods, through women's traditional skills and roles in crop and seed storage and in accessing markets. The female *yapuchiris* are also taking an active role in adaptive risk management and in monitoring bioindicators of climate- and weather-related hazards.

#### *Lessons learnt*

- Agricultural risk management is a task for men and women in rural contexts. In environments as harsh as the Bolivian *altiplano*, their contributions must be articulated under a risk management framework, not simply as production systems or natural resource management.
- Empowerment can be achieved for women if only they are recognized as knowledge managers – and, in some aspects of agricultural production processes, as the only bearers of relevant knowledge.
- Horizontal knowledge management is a tool for risk management and disaster prevention. When the research and management agenda is assembled by local communities (with men and women contributing), scientists and development organizations can add their efforts to a plan developed and fully supported by the people.

- Agricultural risk management can be a very cheap approach, because it is based upon farmers' capabilities and their own practices. Local innovation can be further developed and speeded up by using an approach centred in decision-making patterns and by adding prior information in research designs (farmers usually have plenty of prior information). The world's cheapest agro-meteorological forecast service is being implemented right now.

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→ Source: UNISDR 2008, Gender Perspectives: Integrating Disaster Risk Reduction into Climate Change Adaptation - Good Practices and Lessons Learned  
[http://www.unisdr.org/files/3391\\_GenderPerspectivesIntegratingDRRCCGood20Practices.pdf](http://www.unisdr.org/files/3391_GenderPerspectivesIntegratingDRRCCGood20Practices.pdf)

## CASE 2 *Gender and climate and disaster resilience (Eurasia)*

Natural disasters and climate-related changes affect entire communities and impede sustainable development. Although they affect whole communities, they impact men and women differently. Unequal social, political and economic relations, combined with physical differences, expose the different vulnerabilities of women and men, usually putting women at greater risk.

Gender equality principles therefore need to be integral to building individual, institutional and societal resilience. The more women and men participate on an equal basis in managing natural resources, designing, informing and implementing early warning and recovery plans and policies, the more resilient societies are. In response to these challenges, guided by the global Gender Equality Strategy, UNDP works with national partners to:

- Include gender equality principles in disaster and climate risk reduction policies, plans and budgetary frameworks.
- Collect, analyse and utilize disaggregated data to assess disaster risk from a gender perspective.
- Strengthen the capacities of women's organizations to participate in the formulation and implementation of policies, programmes and strategies.
- Promote women's and men's equal involvement in decision-making, employment creation and reintegration programmes in post-disaster situations.

### *Some of our recent results:*

- In Armenia, UNDP has strengthened the risk reduction skills and knowledge of the government by integrating gender equality principles into national and local action plans. This included raising awareness among authorities and society about gender dimensions of disasters and introducing gender-responsive measures.
- Following the floods in Bosnia and Herzegovina and Serbia in May 2014, UNDP embedded gender concerns into its flood-recovery programmes. In Bosnia and Herzegovina, UNDP prioritized the rehabilitation of households headed by women and ensured that women benefited from cash-for-work and employment programmes. A total of 132 public institutions were reconstructed, recovering a significant number of public jobs that are predominantly occupied by women.



- In **Serbia**, UNDP incorporated a strong gender component in the selection criteria for employment-creation programmes, increasing women's access to safe and productive livelihoods. A third of all jobs created were filled by women.
- In **Kosovo**, UNDP conducted assessments culminating in the publication of a report that identified critical success factors for building the resilience of women during disasters.
- In **Kyrgyzstan**, UNDP integrated the gender dimension into the design of climate-resilient pasture management techniques in the Suusamyр Valley. This resulted in reliable access to irrigation water for 932 people in Kojomkul village, 40 percent of whom were women.

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→ Source: UNDP 2017

<http://www.eurasia.undp.org/content/rbec/en/home/ourwork/gender-equality/gender-equality-and-climate-and-disaster-resilience.html>

### **CASE 3**     *Options for securing women's control over land and livestock (Cabo Verde, Cambodia, Haiti, Mali, Niger and Sudan)*

The Canada-UNDP Climate Change Adaptation Facility (CCAF) is one of UNDP's flagship adaptation projects in the area of gender. All six countries engaged in national adaptation projects under the CCAF – Cape Verde, Cambodia, Haiti, Mali, Niger and Sudan – make a concerted and explicit effort to take a gender-responsive approach to all adaptation activities.

The CCAF projects have taken several different approaches to addressing the challenge of women's access to resources. In the context of adaptation for food security, several projects focused on access to agricultural land for production.

In Mali and Niger, building on positive global experience, the projects focused on collective access to land for women. This circumvents the constraints that individual women face in securing access to productive land (i.e., inheritance laws, customary practices, insufficient financial resources to buy land and other barriers). In fact, in countries where women's associations and groups do not exist or have not been sufficiently supported, as in Cape Verde, the adaptation outcomes seem to be less gender-responsive. Following a different route, the Cambodia project invested in the development of home gardens, which are traditionally under women's domains.

These approaches have produced different results, with strengths and weaknesses that are worth exploring from a gender perspective.

An interesting finding from the CCAF projects is that community authorities play an important role in securing access to land for women. In Sudan, Niger and Mali, village heads make special efforts to secure land for groups of women in their community. In some cases, the land where women grow crops was loaned by the village head himself. Negotiating with local authorities to create enabling conditions for women to gain access to land appears to be a critical element of the CCAF project approach.

In most CCAAF countries, the projects facilitate women's access to farm tools and equipment as well as technical knowledge for cultivation under evolving agro-climatic conditions. In Mali, for instance, women's associations received ploughs and donkey carts (for transportation of goods), dramatically increasing their ability to produce and sell crops. The sale of these crops has provided significant monetary returns and led to better nutritional security for their households.

Control over livestock presents a mixed picture. On the one hand, virtually all CCAAF projects have created conditions for women to be able to raise small animals (poultry, goats, pigs, sheep) and this has benefited household food security and women's control over cash flows. On the other hand, however, opportunities for women to buy large animals, which are traditionally managed and controlled by men, have remained limited. In Niger, there is evidence that a few women managed to buy a couple of bulls; yet bulls remain "the dream of women", as a Niger sociologist puts it, because of their prohibitive cost.

For rural women targeted by the project, gaining access to land means that they can produce and earn, thus increasing their capacity to cope with climate change and to overcome food insecurity. Additionally, evidence suggests that, by gaining access to productive resources, women earn respect. In Niger, a group of women from Niamey I, a rural community located on the outskirts of the capital, stated: "Now that we produce and sell vegetables, our husbands consult us before making decisions, and even the Village Head comes to take our opinion. Earlier, we were just here, full of dust, but now, we count." Sudanese women from North Kordofan and Cambodian women from Kratie Province report similar experiences."

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- Source: UNDP 2016 "Filling Buckets, Fuelling Change: Ensuring Gender-Responsive Climate Change Adaptation" – <http://www.undp.org/content/undp/en/home/librarypage/climate-and-disaster-resilience-/gender-responsive-climate-change-adaptation.html>

# B

## Appendix B: Learning tools

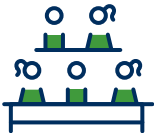
### TASK 1 *Empowering women and girls with disaster survival skills – India (plenary)*

#### **Learning objective:**

Understand the value of education and training that empower women in disaster situation and change socially constructed gender attitudes and culture in recovery efforts.



*Empowering women and girls with disaster survival skills - India (5 Mins)*



*Appendix B: Learning tools*

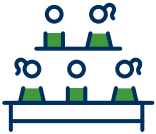
#### **Notes to the facilitator**

- Encourage a discussion on the take-away message of the video presentation.
- Encourage a discussion on gender stereotypes in disaster situations.
- Encourage the participants to discuss, based on their country experiences, other best practices on empowering women and girls in disaster recovery efforts.

## **TASK 2**    *Gender mainstreaming in adaptation and disaster risk reduction (breakout groups and plenary)*

### **Learning objective:**

Appreciate the importance of gender mainstreaming in adaptation and disaster risk reduction at the project level.



*Group activity on gender mainstreaming in disaster risk reduction projects*

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*40 minutes: group breakout discussions*

*15 minutes: presentation of findings (three presentations of 5 minutes each)*

*20 minutes: plenary discussion*

### **Notes to the facilitator**

- Ask the participants to come up with a disaster risk reduction project that also addresses concerns related to climate change (e.g., flooding, drought) and to think about the gender aspects that need to be considered at each stage of the project cycle.
- Encourage the participants (divided into three groups) to make sure that the concepts and tools presented in the module (e.g., Box 9) are considered and reflected in their projects.
- Finally, ask the participants to discuss what they have learned from the assignment.

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