



GENDER AND CLIMATE CHANGE
Capacity development series
ASIA AND THE PACIFIC **Training module** **1**

Overview of linkages between gender and climate change

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I Purpose of the training module

Box 1: Icon key



Activity or exercise



Link to other training modules



PowerPoint or video presentation



Readings



Important information



Timing indication



Internet link

IA Rationale

The lack of international, regional and national gender-specific expertise on climate change and sustainable development issues poses one of the most pressing challenges to addressing the gender dimensions of climate change in developing countries.

To respond to this challenge, the United Nations Development Programme (UNDP) has developed a series of gender and climate change training modules and policy briefs directed at practitioners and policy makers in the Asia-Pacific region. The covered themes are specifically relevant to the region and focus on climate change issues such as adaptation and mitigation, disaster risk reduction, energy and finance.

These materials draw on the capacity development work being undertaken in partnership with other members of the Global Gender and Climate Alliance and complement the Alliance's existing training modules, resource guides and related knowledge products. They are designed to facilitate the work of the regional cadre of national experts and other partners in the Asia-Pacific region to mainstream gender into climate change efforts. The materials' preparation has been made possible by contributions from the Government of Finland and the Government of Denmark.

The materials target a range of practitioners and policy makers. The materials are designed to be used by those with experience in gender and development or by those with backgrounds in climate change, the environment and sustainable development. Readers will gain a greater and shared understanding of how gender and climate change intersect. The learning goals of this module are outlined in Part II.

This module provides a general introduction to the intersection of gender issue and climate change.

IB *Module structure and method*

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

- Gender dimensions of climate change effects in the Asia-Pacific region;
- Gender-differentiated impacts of climate change; and
- Need and options for gender-sensitive climate change responses.

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 gender dimensions of climate change, and Part V, which addresses gendered vulnerabilities to climate change impacts. At the end of the training, users will have a strong understanding of the intersections among gender inequalities and climate risks, gender-related vulnerabilities to climate change and the positive and important roles that women play in climate change mitigation and adaptation efforts.

The module also presents case studies and other learning tools (e.g. handouts and group activities) to help facilitate use of the module and think through issues to consider when designing and implementing gender-sensitive responses to climate change. In addition, the module employs seven 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: Part II, III and IV (1 hour)
- Session 2: Part V (1.5 hour)
- Session 3: Part VI (1.5 hour)

Total estimated session time: 4 hours

See Appendix C, Learning tools, for a breakdown of time for different activities.

II Learning objectives

- Understand the gendered aspects of climate change in the Asia-Pacific region.
- Identify specific gender-based inequities that contribute to women's disproportionate exposure and vulnerability to the effects of climate change.
- Understand women's roles as key agents of change in climate responses.
- Identify policy and programming responses that support the complementary goals of gender equality, women's empowerment and climate change adaptation and mitigation.



III Key messages



- Climate change impacts have the potential to increase the vulnerability and threaten the livelihoods of millions of poor people across the Asia-Pacific region, many of whom already face exposure to disasters, hunger, susceptibility to disease and loss of income.
- Key climate change impacts in the region will include increases in the intensity and/or frequency of disasters and extreme events such as heat waves, tropical cyclones, prolonged dry spells, intense rainfall, tornadoes, snow avalanches, thunderstorms and severe dust storms. However, there is a significant variance within countries and demographics in the region with regard to vulnerability to these impacts.
- The poor and other marginalized segments of society (e.g. women, children and indigenous peoples) are usually more vulnerable to climate change impacts because they are likely to have fewer resources—and hence low adaptive capacities—and lesser access to policy and decision making processes.
- Women's status in the Asia-Pacific region, especially south Asia, needs critical improvements. Gender-based inequalities in law and in practice, gender-defined roles in society and sociocultural constraints render women disproportionately vulnerable to climate change. Climate change impacts have the potential to exacerbate existing gender inequalities.
- Climate change poses risks to gains made to achieve sustainable development objectives and the Millennium Development Goals (MDGs); the efforts at tackling the challenges create opportunities for advancing sound social policy that gives due recognition to the unique contributions and skills of all members of society.
- Because poverty and the social, legal and socio-economic marginalization of women are at the heart of gender-based vulnerabilities, efforts need to be made towards enhancing women's asset base. These efforts should include pro-poor and gender-sensitive legal and policy reform with the view towards strengthening the resilience of poor and marginalized groups (including women), and empowering them to develop sustainable and resilient livelihoods.

- Women make considerable contributions to livelihoods, family well-being, natural resource management, biodiversity conservation, health and food security, which are all important assets that policymakers should draw upon to inform climate change responses.
- There is growing recognition that gender equality and women's empowerment lead to productivity gains and environmental sustainability. Involving both women and men and drawing on their distinct experiences in communities and households will increase the effectiveness and sustainability of climate responses. In contrast, when policymakers overlook women's roles, capacities and potential, climate responses deprive nations of half the available expertise and resources that would otherwise have made critical contributions to adaptation and mitigation strategies.
- Decision makers and development partners at all levels and sectors need to integrate gender perspectives into the planning, financing and implementation of adaptation and mitigation efforts.
- There are several analytical and advocacy tools, guidelines and case studies that can be drawn on to strengthen this critical work on gender and climate change, as well as a growing pool of national experts on gender and climate policy.

IV Gender dimensions of climate change

Learning objective: Understand the overall gender dimensions of climate change in the Asia-Pacific region

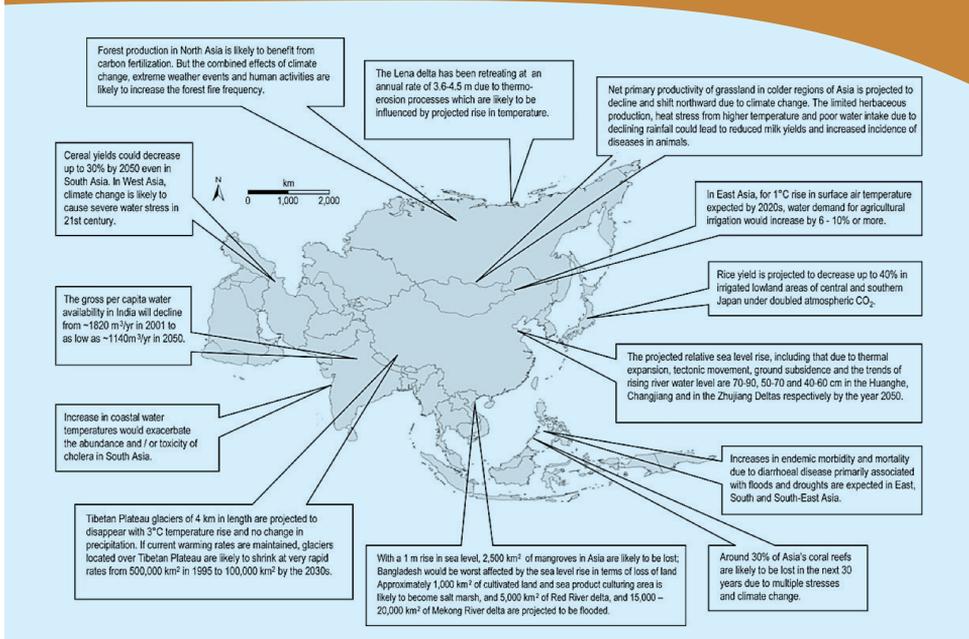


Setting the stage quiz (exercise) (see Appendix A)

1. From farmers Nepal to fishermen in Tuvalu, climate change is threatening livelihoods and the socio-economic and ecological fabric of the planet. Observed changes in earth systems attributable to climate change include shrinking glaciers, thawing permafrost, shifting seasons, changing biodiversity, eroding coasts and rising sea levels, changes that will have negative effects on freshwater resources, coastal systems and human health (Parry et al. 2007, UNDP 2007). Over the next decades, it is predicted that climate change impacts will lead to billions of people, particularly those in developing countries, facing shortages of water and food and greater risks to health and life (UNFCCC 2007). Further, it is probable that the adverse effects of climate change could derail progress toward achievement of the MDGs (Parry et al. 2007, UNDP 2007, World Bank 2010). The 2011 Human Development Report underscores that although climate change will affect all nations, countries with a low Human Development Index are already experiencing increased difficulties in coping with recently added environmental stresses stemming from reductions in rainfall and increases in its variability, with implications for agricultural production and livelihoods (UNDP 2011).
2. There are sharp differences across and within regions in the distribution of climate change impacts and vulnerabilities. Because of its geographical and social diversity, the Asia-Pacific region could be affected by climate change in a variety of ways, including impacts on water resources, terrestrial and marine ecosystems, agriculture, coastal zones, infrastructure and industries (Houghton et al. 2001).

2A. Home to 60 percent of the world's population, the Asia-Pacific region is a melting pot of nation-states, including those experiencing economic transition (e.g. China, Mongolia, Viet Nam), two of the world's largest economies (China and India), middle-income countries (Indonesia, Malaysia, Thailand), countries facing or recovering from conflict (Afghanistan, Cambodia, Indonesia, Pakistan, the Philippines, Nepal, Papua New Guinea, Solomon Islands, Sri Lanka, Thailand and Timor-Leste), and 14

Figure 1: Future climate change impacts in the Asia-Pacific region



Source: Adapted from Cruz et al. 2007.

least developed countries (Afghanistan, Bangladesh, Bhutan, Cambodia, Kiribati, Lao People’s Democratic Republic, Maldives, Myanmar, Nepal, Samoa, Solomon Islands, Timor-Leste, Tuvalu and Vanuatu). Some countries are land locked (Afghanistan, Bhutan, Lao People’s Democratic Republic, Nepal) while others are island states (Kiribati, Maldives, Samoa, Solomon Islands, Timor-Leste, Tuvalu, Vanuatu). The Asia-Pacific region is home to two-thirds of the world’s extremely poor rural people, with 1.8 billion people living on less than \$2 per day and 947 million struggling on less than \$1.25 per day (ADB et al. 2010, Fernando 2008).

2B. In general, the Asia-Pacific region provides a mixed picture on climate change. The region is the fastest growing greenhouse gas emitter in the world. Between 2000 and 2008, greenhouse gas emissions in the Asia-Pacific region have been increasing almost twice as fast as the global average (5.4 percent per annum as compared to the global average of 2.8 percent) (UNESCAP 2011). It is also the region that is forecast to experience the harshest impacts of climate change. A 2011 scientific report found that 6 of the top 10 countries at “extreme risk” for negative climate change impacts

(as measured by the Climate Change Vulnerability Index) are in the Asia-Pacific region (Maplecroft 2010). Floods, droughts, damaging winds, extreme temperatures, elevated sea levels and high surface temperatures are likely to occur in this region and there is evidence of a prominent increase in frequency and intensity of many extreme events such as heat waves, tropical cyclones, prolonged dry spells, intense rainfall, tornadoes, snow avalanches, thunderstorms and severe dust storms (IFAD 2009). These events have potentially deleterious impacts on human health, agriculture, fisheries, water resources, infrastructure, services and economic activities, possibly thwarting economic and social development (Hay and Mimura 2006, IFAD 2009). According to the re-insurance company Swiss Re, 90 percent of the world's climate-related disasters occur in Asia with a toll of half a million deaths from climate-related events (Climate Action Network Australia, UNESCAP 2011).

3. Vulnerability to climate change impacts is intimately linked to poverty and economic marginalization. Certain groups of society, especially the poor, are often the most vulnerable to climate change impacts because they are less likely to have the resources to withstand its effects (Parry et al. 2007). Similarly, climate change may also amplify existing social inequalities, including those based on gender (UNDP 2007).

3A. Several factors make women, particularly poor women, especially vulnerable to the adverse effects of climate change. Women are more likely than men to have limited adaptive capacities, and their livelihoods tend to be highly dependent on natural resources, which are in turn sensitive to climatic change and its impacts (Dankelman 2010, FAO 2011, United Nations 2009). In general, women have lower levels of access to resources (e.g. information, land, assets, education and development services) to capture opportunities to diversify their livelihood options and to lessen dependencies on stressed natural resources (Bertini 2011, FAO 2011, World Bank 2011a). A recent study by the World Bank, for example, indicates that 103 out of 141 economies studied impose legal differences on the basis of gender, with the net effect of reducing women's economic opportunities (IFC and World Bank 2011a).

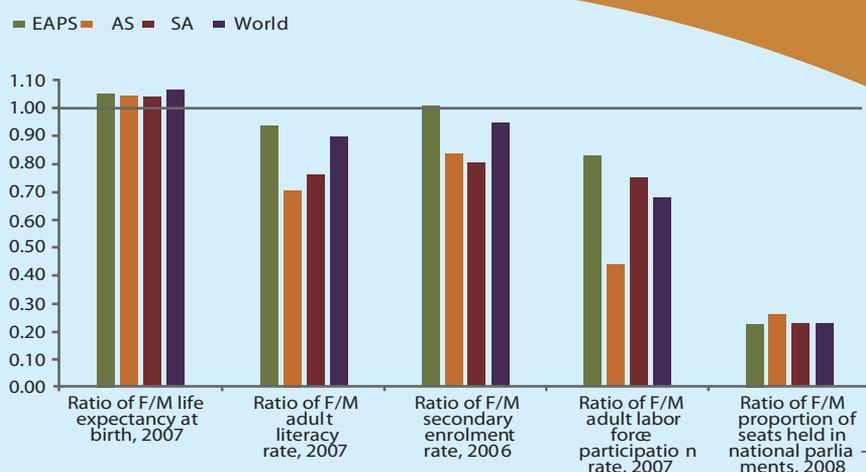
Sociocultural barriers that manifest themselves in gendered roles, power and social status may also inhibit women from effectively responding to climatic risk (Röhr 2006, UNDP 2011b, World Bank 2010). For example, in many societies of the Asia-Pacific region women must ask their husband's permission before leaving the house, wear clothing that may hamper their movements if they have to flee during a disaster and tend to have less access to information that would be critical to ensure their safety and to adapt to natural resource depletion.

3B. Women’s participation in all facets and stages of decision-making is crucial to achieving sustainable and effective climate change responses. Based on their gender roles, unique household and communal experiences and their skill at managing natural resources, women add value to adaptation and mitigation policies and programmes as well as, more broadly, policies and programmes geared towards sustainable development (see paragraph 4). Furthermore, greater female participation in decision-making processes and better respect of their rights are essential to reduce their (and their communities’) vulnerability and exposure to climatic risk.

A London School of Economics study, based on analysis of disaster events in 141 countries, found a correlation between women’s socio-economic status and the gender patterns of deaths from natural disasters. When women’s socio-economic status is low, more women than men die in disasters. By contrast, societies in which women can access higher socio-economic status experienced a more even distribution of deaths (Neumayer and Plumper 1997).

In the Asia-Pacific region, women suffer from some of the world’s lowest rates of political representation, employment and property ownership. The 2010 Asia-Pacific Human Development Report shows that pervasive gender inequalities in countries

Figure 2: Countries in the Asia-Pacific region often rank low on gender indicators



Source: UNDP 2010.

Note: EAP – East Asia and the Pacific; SA – South Asia; SSA – Sub-Saharan Africa. F – female; M – male.

Table 1: Select gender inequality indicators

	Rank	Maternal mortality ratio*	Births attended by skilled health personnel	Antenatal coverage of at least 1 visit (%)	Population with at least secondary education (%) ≤25		Labour force participation rate (%)		% of parliament seats (women)
					Women	Men	Women	Men	
Afghanistan	141	1,400	19	44	18	40	63	80	33
Bhutan	98	200	71	88	16	19	53	71	14
Cambodia	91	85	96	94	48	48	78	78	14
China	35	38	99	91	55	70	67	79	21
India	129	230	53	75	27	50	32	81	11
Kyrgyzstan	56	45	100	100	92	95	66	76	14
Mongolia	70	65	99	100	83	82	68	78	4
Myanmar	96	240	64	80	18	18	63	85	4
Nepal	113	380	53	75	18	40	63	81	33
Sri Lanka	74	39	99	99	56	58	34	75	5
Viet Nam	48	56	88	91	25	28	68	76	26
East Asia and the Pacific		79	92	91	48	61.3	64	80	20
South Asia		252	51	71	27	49	35	81	13
World		176	76	83	51	62	52	78	18

*Defined as maternal deaths per 100,000 live births.

Source: Adapted from the 2011 Gender Inequality Index, see UNDP 2011a.

across the region continue to obstruct justice, stall social stability, deter progress towards sustainable development and hinder the achievement of the MDGs (UNDP 2010b). Exclusion on the basis of gender persists not just in fact, but also in law (Cheema and Rajivan 2011, World Bank 2011a). Additional evidence that the region is lagging behind in terms of gender equality is found in the Human Development Report 2011. Figure 2 shows that the Asia-Pacific region lags on some aspects of gender equality in relation to other developing regions. For example, South Asia's rankings for many gender gap indicators, such as health, adult literacy and economic participation are close to or lower than those in sub-Saharan Africa (see Figure 2; Table 1).

4. Gender equality and women's empowerment are important not only as fundamental human rights, but also because they are effective pathways to achieving sustainable development goals (Carvajal-Escobar et al. 2008, UNDP 2011b, World Bank 2011a). Women are at the core of sustainable economic, social and environmental development in view of their varied functions and responsibilities in areas such as food production, health and child care provision, education and natural resource management. Women are expected to fulfil these roles with a much lower level of access to productive and reproductive resources.

Evidence has shown that giving women increased access to such resources—and the right to manage them—can have large positive impacts on production levels. For example, affording female farmers the same access to productive resources (such as fertilizers, extension services, agricultural information, finance and land) could increase their agricultural yields by 20 to 30 percent, increase national agricultural production by 2.5 to 4 percent and reduce the number of malnourished people by 12 to 17 percent (FAO 2011). According to one study, output per worker in East Asian and Pacific countries could be 7 to 18 percent higher if female entrepreneurs and workers were to work in the same sectors, types of jobs and activities as men, and to have the same access to productive resources (Cuberes and Teignier-Baqué 2011). These studies illustrate that the failure to heed basic social policy considerations, including questions of equal gender access to rights and resources, could undermine the effectiveness of development as well as climate change programmes and policies.

V Gendered vulnerability to climate change and the role of women

Learning objectives:

➤ *Identify specific gender-based inequities that contribute to women's disproportionate exposure and vulnerability to the effects of climate change; and*

➤ *Highlight women's roles as key agents of change in climate responses.*



Sisters of the Planet - Sahena (Bangladesh)

(video: <http://www.youtube.com/watch?v=WqYgDGy8Z4M>)



See Appendix C: Learning Tools

5. Climate change is not gender-neutral—it affects women and men differently (see Table 2). There is a complex relationship between gender and climate change. Gender issues interface with different facets of climate change. For the purposes of this module, focus is placed on vulnerability (5A), adaptation (5B) and mitigation (5C).

5A. Vulnerability, as defined by the Intergovernmental Panel on Climate Change (IPCC), is “the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude and rate of climate variation to which a system is exposed, its sensitivity and its adaptive capacity” (see Box 2).

Women face a range of gender-based disadvantages in the region, which not only affect their ability to respond to and deal with the effects of climate change, but also often increase their vulnerability to such effects.

The regional Human Development Report for the Asia-Pacific region shows that women in the region continue to face serious economic, political and legal discrimination. While overall indicators for economic prosperity, educational attainments and access to healthcare have improved for the region's population over time, much remains to be done, particularly in East Asia (UNDP 2010b). Data from the 2010 Asia-Pacific Human Development Report that illustrates such discrimination centers around the following issues:

- Land inheritance laws in more than half of the countries in South- and West Asia and one-third of countries in East Asia discriminate against women. The discrimination is worse in the Pacific, especially with customary laws on inheritance;
- More than 10 percent of women in the Asia-Pacific region report incidents of domestic violence; more than 60 percent of the countries in the Pacific and nearly 50 percent in South Asia have no laws dealing with domestic violence;
- Out of seven regions, both Asia and the Pacific regions have the second-lowest percentage of women in parliament; the Pacific has four of the six countries in the world with no women members of parliament; and
- Asia has the highest male-to-female sex ratio at birth in the world, with sex-selective abortion and infanticide leaving 96 million 'missing' women in some countries. East Asia, in particular, has a male-to-female sex ratio at birth of 119 boys for every 100 girls (see Figure 3).

Building on these issues, as a demographic group, women also have low adaptive capacity in the region, wherein their vulnerability to climate change is also increased. Reasons for this lack of capacity include:

- Women have lower levels of access to financial information and productive resources (see paragraph 3A) (World Bank 2012). Marginalizing women from the economy translates to women having few assets and inadequate resource bases

Box 2: Definitions of exposure, sensitivity and adaptive capacity

Exposure: *The nature and degree to which a system is exposed to significant climatic variations.*

Sensitivity: *The degree to which a system is affected, either adversely or beneficially, by climate-related stimuli. The effect may be direct (e.g. a change in crop yield in response to a change in the mean, range, or variability of temperature) or indirect (e.g. damages caused by an increase in the frequency of coastal flooding due to a rise in the sea level).*

Adaptive capacity: *The ability of a system to adjust to climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities or to cope with the consequences.*

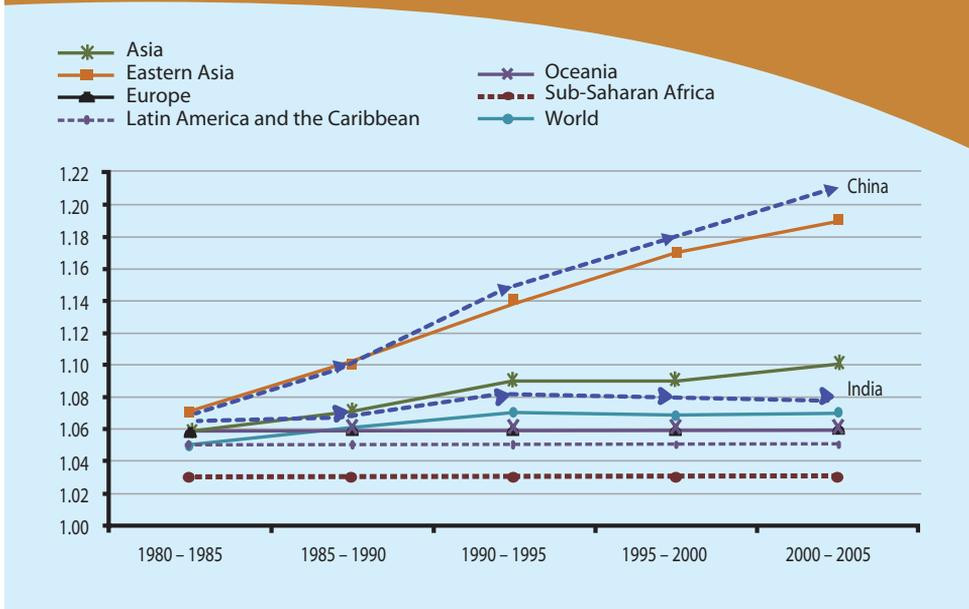
Source: <http://www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf>.

Table 2: Gender-differentiated impacts of climate change

Climate change effects	Potential risks	Examples	Potential effects on women
Direct	<i>Increased ocean temperature</i>	<i>Rising incidence of coral bleaching due to thermal stress.</i>	<i>Loss of coral reefs can damage the tourism industry, a sector in which women comprise 46 percent of the workforce.</i>
	<i>Increased drought and water shortage</i>	<i>South-East Asia could witness climate change-induced water shortages due to extreme events such as droughts or severe rainfall. Sea level rise can also trigger salt-water intrusion into freshwater resources.</i>	<i>Women and girls in developing countries are often the primary collectors, users and managers of water. Decreases in water availability will jeopardize their families' livelihoods, increase their workload and have secondary effects such as lower school enrolment or diminished opportunity to engage in income-generating activities.</i>
	<i>Increased extreme weather events</i>	<i>Greater intensity and number of cyclones, hurricanes, floods and heat waves.</i>	<i>A sample of 141 countries from 1981 to 2002 found that natural disasters (and their subsequent impacts) kill more women than men on average or kill women at an earlier age than men.</i>
Indirect	<i>Increased epidemics</i>	<i>Climate variability played a critical role in malaria epidemics in the East African highlands and accounted for an estimated 70 percent of variation in recent cholera series in Bangladesh.</i>	<i>Women have less access to medical services than men and their workloads increase when they have to spend more time caring for the sick. Poorer households affected by HIV-related illnesses have fewer resources to adapt to the effects of climate change. Adopting new strategies for crop production or mobilizing livestock is harder for female-headed households and those in which a member is HIV-positive.</i>
	<i>Loss of species</i>	<i>By 2050, climate change could result in a species extinction rate of 18 to 35 percent.</i>	<i>Women may often rely on crop diversity to accommodate climate variations, but permanent temperature change will reduce agro-biodiversity and traditional medicine options, potentially affecting food security and health.</i>
	<i>Decreased crop production</i>	<i>While increasing rainfall is generally expected in South-East Asia, temperature increases may threaten agricultural productivity, stressing crops and reducing yields.</i>	<i>Agricultural impacts particularly affect low-income rural populations that depend on traditional agricultural systems or on marginal lands. Women farmers tend to be poorer and highly dependent on agriculture. Hence, climate-related crop changes are likely to have devastating impacts on their livelihoods.</i>

Source: UNDP 2010a.

Figure 3: Male-to-female sex ratio at birth (1980–2005)



Source: UNDP 2010b.

to effectively respond to the effects of climate change. Poverty contributes to this vulnerability, because resources are necessary to withstand the effects of climate change. For example, the poor are unable to access the necessary technology to adjust their livelihoods to a severe drought (e.g. change to drought-resistant crops), as they are less likely to have assets or be able to secure the necessary credit to buy such resources (see Table 2 and Box 3) (FAO 2011);

- Women face gender-based discrimination on ownership of land and other resources, such as access to credit and technology (Cheema and Rajivan 2011, FAO 2011, IFC and World Bank 2011, UNDP 2010b, World Bank 2011). Existing statutory and customary laws limit women’s access to land and other types of property in about half the countries in Asia (World Bank 2011);
- Women and girls are more exposed to and vulnerable to climate change-induced disasters on account of socially constraining norms and values. Studies have found that women and children are 14 times more likely to die than men during disasters. During the 2008 cyclone Nargis in Myanmar, 61 percent of the 138,366 people who died were women (Brody et al. 2008, Castañeda and

Gammage 2011, IFRCRCS 2009). The following list illustrates the sociocultural facets of gendered vulnerability:

- In most of the developing world, women's gender roles (e.g. collecting water and fuel wood) make them more dependent on natural resources that are vulnerable to climate change. Further, the drudgery associated with such chores exposes women and girls to negative health effects and risks to their safety when they must walk for long distances (WHO 2011);
- Climate change alters cropping and weather patterns and increases the frequency and severity of droughts and floods, which affect women's role as providers and food producers;
- Culturally imposed attire constrains women's mobility, potentially exposing them to dangers during disasters, particularly floods. Similarly, survival skills that are vital in disaster situations (such as tree climbing and swimming) are taught primarily to boys;

Box 3: Gender inequity: Illustrative statistics

- *Women work roughly twice as much (or more) than men on domestic work, and in Africa and Asia, two to three times as much.*
- *Women's access to cash income is systematically low in the less-developed regions.*
- *Although they play a major role in world food production, in most countries in Africa and about half the countries in Asia, women are disadvantaged by statutory and customary laws in their access to land ownership and other types of property.*
- *Globally, women hold few government positions. Only 17 percent of cabinet members are women and only in two countries in the Asia-Pacific region (Nepal and New Zealand) do women occupy 30 percent or more seats in their national parliaments. The regional averages for Asia and the Pacific respectively are 19 and 13 percent.*
- *Two-thirds of the world's 793 million illiterate adults are women. In the Asia-Pacific region, 67 percent of illiterate adults are women.*
- *Women account for about 40 percent of the total global workforce but constitute the majority (58 percent) of unpaid workers, 44 percent of wage employment and 50 percent of informal employment.*

Sources: FAO 2011, UNESCO 2012, World Bank 2011b.

Box 4: National adaptation programme of action: Bangladesh

Unlike many other NAPAs, the Bangladesh NAPA contains a number of references to gender and women and recognizes the reality of “gender differentiated impacts” in its adaptation framework. The plan also maintains that a “gender perspective” was considered as an important criterion in the prioritization of adaptation needs and activities. It is also noted that various community-based organizations as well as “indigenous women” were involved in the development of the adaptation plan (Government of the People’s Republic of Bangladesh 2005) It should be noted that the NAPA presents women mainly as one of the most vulnerable groups; women’s valuable contributions to adaptive efforts were not de-emphasized (WEDO 2008).

- Women tend to be reluctant to move to safe shelters during disasters for fear of losing their children and their homes, the fear of gender-based violence, or reluctance to share common space with men. Often, women are not in a position to make evacuation decisions without their husbands and hence stay behind waiting instead of securing themselves and their children/family on time; and
- Lack of access to information and to information technologies and services (as well as the ability to read/interpret such information), tends to put women at a disadvantage in the face of natural disasters. For example, women may not receive early warning information transmitted in public spaces. Women farmers tend to have less access to weather information or warnings, or information about alternative crops that will be required to adapt to climate shifts (Dankelman 2010, UNISDR et al. 2009).



Module 3: Disaster risk reduction

5B. Adaptation is defined by the IPCC as “initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects. Various types of adaptation exist, e.g. anticipatory and reactive, private and public and autonomous and planned. Examples include raising river or coastal dikes, the substitution of more temperature-shock resistant plants for sensitive ones, etc.” (Parry et al. 2007) Adaptation refers to coping with those impacts of climate change that cannot be avoided (Burton et al. 2006). The drivers, stressors and impacts of

climate change and variability are complex; coping strategies therefore need to be carefully designed and long term solutions that also seek to improve human security and welfare. The degree to which such change may be needed is determined by the level of vulnerability; exposure and sensitivity of a unit and its adaptive capacity. There are a number of ways in which gender issues bear in the context of adaptation—adaptation planning and financing are two important facets of adaptation that affect women and other groups of society that tend to be poorer and more marginalized.

- Adaptation planning could have unintended gender consequences. Although a growing number of women are living in urban areas, and though men's livelihoods in rural areas also depend on natural resources, women tend to rely more heavily on livelihoods that are put at risk by climate change. This reliance contributes to weaker adaptive capacities. They also often lack legal rights and access to resources and information.
- Adaptation entails behavioural and policy changes in development. These changes could manifest in a range of specific plans and actions, such as “readjusting irrigation and flood control systems; strengthening infrastructure; climate-proofing domiciles, communities and capital stock against the ravages of extreme weather events; and relocation and migration.” (UNDP 2011b) Although adaptation is sometimes used in association with changes in technology and infrastructure, the human component is equally important—if not more so. Adaptation necessitates a change in behaviour, attitudes and relationships (between people as well as between people and environmental resources).
- Adaptation actions that do not take gender perspectives into account may result in maladaptation by unintentionally amplifying gender inequalities. This, in turn, can lead to detrimental effects on women as well as threats to the effectiveness of the adaptation strategy itself. For example, diverting fresh water to areas where there is a water shortage may have the unintended consequence of lengthening and intensifying the productive and reproductive working day of women who will need to go further to access water sources (Aguilar et al. 2009).
- The United Nations Framework Convention on Climate Change's national adaptation programme of action (NAPA) is a planning tool and process originally designed to be a response for the immediate adaptation needs of least developed countries. Despite the importance of NAPAs in identifying priorities and strategies for adapting to climate change, gender perspectives have not been fairly or adequately incorporated in the plans. As of 2009, less than one-third of NAPAs mentioned gender equality as an important underlying principle and few recognized that gender equality is a necessary tool for achieving the national

adaptation and development goals (Schalatek 2009). In the Asia-Pacific region, Bangladesh is one country that has reflected gender issues and concerns in its NAPA, with some degree of success.

- Adaptation financing impacts gender equality and women's empowerment. There are a growing number of adaptation finance mechanisms at the international, regional and national levels (UNDP 2011b). While many of these funds and mechanisms are still evolving, preliminary analyses reveal that more effort is needed to ensure that the financing of adaptation is done in a manner that is gender responsive (Arend and Lowman 2011, Schalatek 2009, UNDP 2011b).



Module 2: Adaptation and Module 5: Finance

5C. **Mitigation** refers to the actions taken to reduce the greenhouse gas emissions in order to minimize their effects on global climate change (Burton et al. 2006). Mitigation is defined by the IPCC as “an anthropogenic intervention to reduce the anthropogenic forcing of the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks.” (Parry et al. 2007) The gender-mitigation intersection can be looked at in the same manner as adaptation (see paragraph 5B). Like adaptation, mitigation efforts (including mitigation planning and financing) need to be gender-responsive. There are a number of ways in which gender issues play a role and have large implications for mitigation action:

- Similar to adaptation, mitigation planning entails general and specific policy, technological and behavioural changes at all levels, including via measures aimed at curbing deforestation, converting to renewable energy sources and promoting energy efficiency programmes (UNDP 2011b). All of these changes involve actions that could impact women as well as mitigate the adverse effects of climate change;
- Under the United Nations Framework Convention on Climate Change and its Kyoto Protocol, mitigation has been mostly developed countries' responsibility due to their historical greenhouse gas emissions. Looking forward, however, developing countries may also need to undertake mitigation actions. At the seventeenth Conference of Parties convened in Durban, South Africa, parties agreed to develop a protocol or devise a new treaty under which all countries will cut their greenhouse gas emissions. The new regime should be completed by 2015 and implemented by 2020. Moreover, **nationally appropriate mitigation actions**

(mitigation actions that developing countries undertake as part of a commitment to reduce greenhouse gases)¹ may gain prominence and could provide opportunities to develop projects that benefit women and the poor in addition to making contributions to the broader mitigation effort (Schalatek 2009);

- Approximately 12 to 17 percent of all greenhouse gas emissions come from deforestation and forest degradation (Morris et al. 2011). In addition to their mitigative function as carbon sinks, forests also provide food and livelihoods for local communities. Many of the more than 1 billion poor people in the world rely on forest resources for survival. Mitigation efforts involving forests such as REDD+ (reducing emissions from deforestation and forest degradation) and through conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks have repercussions for women and indigenous communities. For example, in areas where traditional and customary land tenure systems preside, wherein clear land titles processes do not exist, instances of land grabbing for activities such as monoculture plantations, environmental conservation projects and extractive industries can occur. This process then can often further marginalize and displace many indigenous and other community groups, including women, who obtain their livelihoods from such land (FAO 2009). Thus, it is vital that REDD+ initiatives take full account of men's and women's differing relationships with forest resources as well as ensure their equal representation and participation in forest decision-making and management;
- Various REDD+ initiatives are currently underway in many countries in the Asia-Pacific region, helping them raise much-needed finance for sustainable development and providing economic and social benefits to poor and marginalized communities (ADB et al. 2010). For example, the UN-REDD Programme², as of September 2013, was supporting national REDD+ readiness efforts in 15 countries in the Asia-Pacific region;³

1. Nationally appropriate mitigation actions were originally conceptualized as part of the Bali Road Map, a product of COP-13 of the United Nations Framework Convention on Climate Change in December 2007, and also referenced at COP-15 in Copenhagen, as part of the Copenhagen Accord, in December 2009.

2. The UN-REDD Programme is the United Nations collaborative initiative on REDD in developing countries. Launched in 2008, its work is implemented jointly by UNDP, the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Programme (UNEP).

3. UN REDD Programme partner countries in Asia-Pacific are Bangladesh, Bhutan, Cambodia, Indonesia, the Lao Peoples' Democratic Republic, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, the Philippines, Solomon Islands, Sri Lanka and Viet Nam. See <http://www.un-redd.org/Partner-Countries/tabid/102663/Default.aspx>.

Experiences thus far in many REDD+ related activities suggest that the women's ownership and user rights over forest resources need to be more properly safeguarded within countries. Furthermore, women's contributions to forest and biodiversity conservation are often still overlooked. For example some current market-based REDD+ proposals focus on large-scale deforestation, which women in general are less involved in (Schalatek 2009, UNDP 2011b);

- Mitigation finance can bolster gender equality and women's empowerment. The investments needed to reduce the concentration of greenhouse gases could cost between 0.2 to 1.2 percent of annual world gross domestic product (UNDP 2011a), or \$140 to \$175 billion per year (World Bank 2011). Climate finance, much like other official development assistance, could have co-benefits (such as promoting human rights and democracy) or undesirable secondary effects (such as corruption and other social costs). Mitigation finance has the potential to reinforce gender equality and women's empowerment or, conversely, exacerbate gender-based inequalities (UNDP 2011b). Climate financing instruments, mechanisms and processes will need to be gender-responsive in order to avert any negative effects on progress made in gender equality and the MDGs; and
- A number of mitigation finance mechanisms and sources, such as the Climate Investment Funds, are still evolving, which presents opportunities for ensuring their programming incorporates gender perspectives moving forward. This would provide dual advantages. First, the climate change mitigation efforts would aid and contribute to effective social development outcomes. Further, mitigation investment returns would be more assured because women's meaningful participation can help result in more effective and efficient programmes as well as promote environmental sustainability (see paragraph 4 above) (UNDP 2011a, 2011b, 2010; World Bank 2012).



Module 5: Finance

VI Incorporating gender perspectives in climate change responses

Learning objective: Identify policy and programming responses that support the complementary goals of gender equality, women's empowerment and climate change adaptation and mitigation

6. The Human Development Report underscores that climate change can derail progress towards achieving the MDGs and gender equality by exacerbating poverty, reinforcing traditional patterns of discrimination and directly affecting gender-defined livelihoods. These outcomes would be a double loss, because there is growing evidence that women's greater participation would not only be good social policy, but would also enhance the sustainability and effectiveness of climate change responses (also see Parts III and IV of this module) (UNDP 2011a, 2007).
7. Gender mainstreaming is one avenue in which women's unique knowledge and skills related to natural resources management, energy and food production—necessary for effective mitigation and adaptation efforts—could be put to use. Mainstreaming gender in climate change projects, policies and planning can help achieve the twin goals of advancing social policy (including gender equality) and ensuring greater returns on mitigative and adaptive investments. Boxes 6, 7 and 8 provide a checklist of activities that are useful in mainstreaming gender perspectives into climate change responses.

Box 5: Gender mainstreaming defined

Gender mainstreaming 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.”

Source: ECOSOC 1997.

Box 6: Gender mainstreaming checklist for climate change

- *Assess the different implications of policy and programme interventions for women and men from the outset.*
- *Assess women and men's technology choices, uses and needs.*
- *Assess women and men's knowledge concerning the climate change risks, changes in local environment and weather and strategies and coping mechanisms in response.*
- *Ensure that these assessments are informed by expert gender analysis and by consultations with women and men on priorities, strategic needs and options for action.*
- *Based on this analysis, build targeted objectives for incorporating gender equality and women's empowerment into policies' and programmes' plans and budgets.*
- *Use female project implementers, extension agents and trainers to ensure that women participate equally in knowledge access and training.*
- *Set targets for female participation in activities.*
- *Make women's equality, access to information, economic resources and education a priority.*
- *Monitor and evaluate changes in gender relations using gender-sensitive indicators.*
- *Monitor beneficiaries and results of projects using sex-disaggregated data.*
- *Proactively seek out and engage with appropriate women's rights organizations and female community leaders when selecting partners.*
- *Ensure that women participate equally and actively alongside men and are enabled to take up leadership positions throughout the programme management cycle.*

Box 7: Questions to ask in a gender analysis

- *Which men and which women hold the power in this community?*
- *What activities are performed by women and men? How will climate change affect the abilities of women and men to fulfil their differing responsibilities?*
- *Who owns and controls resources? What are the levels of access to and control over resources of women and men?*
- *Who takes the decisions? Who sets the agenda?*
- *Who gains and who loses from processes of development?*

Box 8: Gender-related differences to be understood

- *Differences in the lives of poor women and men in the target community.*
- *Different roles, skills, capacities and aspirations of women and men.*
- *Different levels of access to and control over key productive, information and technology resources.*
- *Different levels of vulnerability, resilience and autonomy of men and women when confronted with different threats.*
- *Different local knowledge possessed by women and men concerning natural resources and agricultural production. This may include climate change-relevant information on risk, adaptation and mitigation.*
- *Division of labour among women and men.*
- *Different levels of participation and leadership enjoyed by women and men.*
- *Barriers that unequal gender relations present to women's development in this particular community.*

7A. A number of analytical tools and methods are useful for mainstreaming gender in climate change-related projects, policies and planning. Some have broad application, while others have specific relevance such as for disaster risk reduction and management, adaptation and energy. Some focus on vulnerability and impact assessment as well as stakeholder analysis and management; others are concerned with adaptation and climate risk communication decision-making.

7B. Table 3 provides examples of such tools. The usefulness of the tools and methods is mostly a function of context. These tools and methods generally call for methodically integrating women and their concerns, specific needs and contributions into decision-making processes. This could be during the screening, review, implementation, monitoring and evaluation of adaptation, disaster risk reduction and mitigation projects, or, broadly, a meticulous review, improvement and implementation of existing regulatory and policy tools on environment, natural resources, adaptation to climate change, disaster risk mitigation and management.

8. As discussed in Parts III, IV and V, gender inequalities intersect with climate risks and vulnerabilities. Women's limited access to resources, restricted rights and low decision-making power make them highly vulnerable to climate change. Policies that help boost women's asset base and access to resources, therefore, go a long way towards

Table 3: Analytical tools for gender mainstreaming

Analytical framework	Focus of analysis	Key analytical questions	Tools for data collection
Moser Framework	<ul style="list-style-type: none"> ➤ Gender identification ➤ Practical needs and strategic interests 	What are the practical needs and strategic interests?	➤ Needs assessment
Gender Analysis Matrix Framework	<ul style="list-style-type: none"> ➤ Impact of interventions ➤ Identification and analysis of differences ➤ Gender roles 	What is the differential impact?	➤ Impact assessment
Social Relations Approach Framework	<ul style="list-style-type: none"> ➤ Analyse existing inequalities in the distribution of resources, responsibilities and power 	Who has what and what are the relationships between the people?	<ul style="list-style-type: none"> ➤ Institutional analysis ➤ Socio-political profile
Capacities and Vulnerabilities Analysis Framework	<ul style="list-style-type: none"> ➤ Existing capacities (strengths) and vulnerabilities (weaknesses) 	What will help and what will hinder?	➤ Capacities and vulnerabilities assessment
Capacities and Vulnerabilities Analysis Framework	<ul style="list-style-type: none"> ➤ Roles and activities ➤ Allocation of resources ➤ Productive and socially reproductive work 	Who does what, how, where and what influences it?	<ul style="list-style-type: none"> ➤ Activity profile ➤ Access and control profile ➤ Influencing factors

Source: United Nations Development Programme. (2010). *Gender, Climate Change and Community-Based Adaptation*. New York: 25.

reducing their vulnerability. Equal rights to property and earnings need to be ensured through laws, policies and political empowerment. Significant investments need to be made in women's (particularly rural and poor women's) education and health. Mitigative and adaptive climate change responses need to take cognizance of not only women's gender-based vulnerabilities, but also the fact that returns on any effort to address climate change impacts will benefit immeasurably by using women's unique skills and knowledge. Efforts also need to recognize the differing roles of women and men in the household, food production, livelihoods and natural resource management areas.

8A. Adaptation efforts should be pro-poor and gender-sensitive, with the long-term view towards strengthening poor and marginalized groups' resilience and enabling them to develop sustainable and resilient livelihoods (Dankelman 2010, UNFPA and WEDO 2009). For example, given that most of the projects identified and prioritized during NAPA processes have yet to be implemented, there is time and opportunity to promote gender-conscious adaptation planning based on lessons learned from the NAPA preparation phase. Moreover, the lessons learned could—and should—inform upcoming programming of a similar nature. For example, the Cancún Adaptation Framework enables least developed countries to build on their NAPA experiences by formulating and implementing National Adaptation Plans that identify their medium- and long-term adaptation needs and develop strategies and programmes to address those needs (UNFCCC 2007). This presents a good opportunity to imbue gender-sensitive adaptation planning in the poorest nations.

8B. In terms of climate mitigation efforts, much more could be done at the international, national and local levels to integrate gender perspectives into corresponding policies and programming. Often mitigation projects are done at a larger and sector-wide scale. As such, they have the potential to have substantial reach in promoting sustainable development as well as achieving co-benefits in poverty reduction, women's empowerment and economic development. Therefore, mitigation actions at all levels need to be pro-poor and gender-responsive in design, implementation, monitoring and evaluation.



**Sisters of the Planet, Sahena (Bangladesh) –
Video presentation and group exercise**

(video: <http://www.youtube.com/watch?v=WqYgDGy8Z4M>)



See Appendix C: Learning Tools

VII Conclusion

Adaptation, vulnerability and people's and communities' resilience to climate change impacts are a function of an array of factors. The most salient factors are the degree of exposure and dependency on livelihoods that are susceptible to climatic changes and adaptive capacity. The latter is influenced by, among other things, gender, social status, poverty, power, access, control and ownership over resources.

Women are disproportionately vulnerable to climate impacts. Low economic status, the lack of meaningful access to resources and information and the absence of effective influence in decision-making from the household through community, national, regional and international levels contribute to their disproportionate vulnerability. Furthermore, women tend to rely upon livelihoods that are more likely to be influenced by climate variability and change. Sociocultural and legal restrictions also disproportionately increase women and girls' exposure and vulnerability to climatic hazards.

Although women face particular socio-economic issues that shape their vulnerability to climate change, and although unabated climate change impacts can worsen traditional gender disparities, mitigation and adaptation efforts offer opportunities to advance gender equality and women's empowerment. Gender-sensitive climate change responses will contribute to the reduction of gender inequality and will increase people's resilience to climate change.

Women are not only victims of climate change, but active agents of change. They possess unique knowledge and skills regarding food production, climate patterns, natural resources management and health care and possess coping strategies based on local environment and conditions. They are central to socio-economic development in their productive, reproductive and community management roles. For these reasons, investing in women will have enormously positive benefits for communities as a whole. It will also result in environmental gains and lead to greater returns across the MDGs and broader development objectives. Gender-sensitive approaches will help reduce the effects of climate change shocks, disasters and shifts. The approaches would also enhance the efficiency and sustainability of adaptation and mitigation efforts at all levels. Mainstreaming women's knowledge and gender perspectives into the planning, financing, implementing and monitoring of all climate change related undertakings will increase benefits for all.

Appendix A. Setting the stage exercise

1. What percentage of the world's 1.3 billion people living in extreme poverty are women and girls?

- a. 50%
- b. 60%
- c. 70%
- d. 80%

Answer – C

2. What percentage of the world's climate-related disasters occur within Asia?

- a. 70%
- b. 55%
- c. 60%
- d. 90%

Answer – D

3. What percentage of government cabinet members worldwide are women?

- a. 10%
- b. 17%
- c. 25%
- d. 50%

Answer – B

4. What percent of the illiterate adults in the Asia-Pacific region are women?

- a. 25%
- b. 75%
- c. 40%
- d. 67%

Answer – D

5. In a sample of 141 countries from 1981 to 2002 it was found that natural disasters (and their subsequent impact) on average:

- a. Kill more men than women
- b. Kill the same amount of women and men
- c. Kill more women than men

Answer: C (natural disasters on average kill more women than men or kill women at an earlier age than men. To note, in societies where women experience higher levels of socio-economic status, deaths in disasters are more evenly distributed).

6. Gender equality can promote:

- a. Poverty eradication
- b. Sustainable development
- c. Reduced risk of disaster loss
- d. Increased family income
- e. All of the above

Answer – E

7. Women tend to have less access to development resources than men because:

- a. Their husband takes good care of all members of the family so they don't need those resources
- b. They are illiterate, so they can't manage resources properly
- c. Power relations keep them away from decision-making processes

Answer – C

8. Equity means:

- a. Men and women receive exactly the same amount of resources and the same treatment
- b. Sometimes women receive a different treatment in order to reduce gender gaps
- c. Sometimes women receive a different treatment because they are weaker than men

Answer – B

9. Equality means:

- a. People may have different lifestyles but they have the same rights
- b. No differences are made based on people's gender
- c. Everyone is the same

Answer – A

10. To support women's empowerment we must:

- a. Increase women's participation in decision-making processes
- b. Encourage women's leadership in the community
- c. Improve women's skills
- d. All of the above

Answer – D

11. To reduce gender inequality we must (select as many as apply):

- a. Give power to women only
- b. Encourage men to challenge power relations and gender roles
- c. Raise awareness of men and women about their human rights

Answer – B and C

Appendix B. Case studies

Case study 1

Women in post-tsunami Sri Lanka

Excerpted from Rees, S., E. Pittaway and L. Bartolomei. 'Waves of Violence – Women in Post-Tsunami Sri Lanka', The Australasian Journal of Disaster and Trauma Studies, ISSN: 1174-4707 Volume: 2005-2; available at: <http://www.massey.ac.nz/~trauma/issues/2005-2/rees.htm>.

“Reports are that women and children were the worst affected by the force of the December 2004 tsunami (Oxfam 2005). Children were disproportionately affected because they are small and are often dependent on adults, and many women died trying to care for their children and other family members. In Sri Lanka, the second wave of brutality affecting women is not from a natural source; it is caused from an increase in incidents of rape and domestic violence. Compounding the effects of violence is the lack of food and clean water, housing and health care specific to the needs of women, many of whom are pregnant, lactating and caring for infants.

In August 2004, [the United Nations High Commissioner for Refugees] launched a report entitled Sexual and Gender Based Violence in Selected Locations in Sri Lanka. The study was conducted in 12 sites across Sri Lanka and identified a high incidence of Sexual and Gender Based Violence, particularly domestic violence, of which 80% is unreported to authorities. The destruction of infrastructure and the lack of effective mechanisms for monitoring and protection in the post-tsunami context would almost certainly increase the vulnerability of women to Sexual and Gender Based Violence. Incidents of rape, gang rape, molestation and physical abuse of women and girls in the course of unsupervised rescue operations and while in temporary shelters have been reported (Pikul 2005). Unfortunately, these reports are consistent with literature linking disaster with increased incidence of Sexual and Gender Based Violence (Enarson 2000, 1998).

A number of women's groups in Sri Lanka undertook fact-finding missions within the days following the Tsunami. The groups reported a culture of denial among some camp committees, medical staff, police and religious leaders. They cited comments about domestic violence, which ranged from “this is normal” to outright denial that any sexual violence against women was occurring. In cases where rape and sexual violence was acknowledged it tended to be blamed on outsiders, often on drug addicts and criminals.”

Case study 2

Recycling municipal waste through biogas production and composting in Nepal

Excerpted from Global Environment Facility, 'Empowering Women One Community at a Time', Small Grants Programme, 2005).

"In 1990, a group of sixteen women from Lalitpur, Nepal started collecting waste from the neighbouring 50 households. This initiative led to the establishment of the organization called Women Environment Protection Committee (WEPCO). By 2004, waste collection expanded to 1000 households, wherein WEPCO had to manage 4-5 tonnes of waste daily. The main guiding principles of the project are 'polluters must pay' and 'waste is resource'.

With financing from [the Global Environment Facility's Small Grants Programme], the initiative was able to adopt a strategy in managing waste at source (within households) and further increase the number of households involved. WEPCO demonstrated that the conversion of waste to biogas is an innovative way to reduce waste and generate energy, thereby reducing demand. This community-based project has not only provided environmental benefits but socio-economic as well: awareness-raising and training, particularly young people and generation of income, improving the livelihood of the members of the community."

The project has contribution to the MDGs in the following ways:

MDG 1

- Training of young people, which may result in future job creation;
- Income generation for 496 women members of the Gangeswor Saving and Credit Cooperative, mobilizing \$123,924 and using it to provide loans to 150 members; and
- The project came about through the leadership of women in the Lalitpur district. They are the project proponent, implementer and beneficiary of the project.

MDG 3

- 496 women members in one initiative alone (Gangeswor Saving and Credit Cooperative);
- Total of 892 women in 30 groups mobilize and currently replicate the project; and
- Waste management undertaken in 1861 households through segregation, conversion to biogas energy and recycling.

MDG 7

- Innovative reduction of waste through conversion to an alternative mode of energy resource;
- Environmental education to 47 schools/1400 students;
- Awareness-raising to over 5000 visitors at the WEPCO demonstration site;
- Implementation of the Biogas Subsidy Programme by the government and replication in 20 other sites in the country.

Case study 3

Poverty and disaster—a cyclone in India

Oxfam, 'Gender and Disaster Risk Reduction: A training pack', July 2011, available at: www.oxfam.org.uk/resources/learning/gender/downloads/gender-drr-handouts-module1-040711-en.pdf.

“A wealthy and a poor family live 100 metres apart near the coast of Andhra Pradesh in southeast India. The wealthy family has six members, a brick house, six cattle and three acres of land. The head of the household owns a small grain business and a truck. The poor family—husband, wife and two children—has a thatch-and-pole house, an ox and calf, half an acre of poor land and sharecropping rights to another quarter of an acre.

When the cyclone strikes, the wealthy farmer has received a warning on his radio and leaves the area with his family and valuables in the truck. The storm surge (flood) brought by the cyclone partly destroys his house and the roof is taken off by the wind. Three of his cattle are drowned and his fields are flooded, destroying the crops. The youngest child of the poor family is drowned. The family's house is destroyed. Both animals are drowned. The fields are flooded and their crops ruined. The wealthy family uses its savings to rebuild the house within a week. The cattle are replaced and the fields ploughed and replanted. The poor family does not have savings and has to borrow money for essential shelter from a local moneylender, at exorbitant rates of interest. They manage to buy a calf, but have to hire bullocks to plough the field—which is done late, since many others are in the same position and draught animals are in short supply. As a result, the poor family goes through a hungry period eight months after the cyclone. Source: Blakie, P., T. Cannon, I. Davis and B. Wisner, *At Risk: Natural Hazards, People's Vulnerability and Disasters*, London: Routledge, 1995, p. 47.”

Appendix C. Learning tools

Task 1: Group discussion (plenary)

Learning objective: Have a general understanding of women and girls' situation in general as well as gender-based constraints within the context of climate change



Setting the stage – Quiz (Appendix A)

35 minutes (group exercise and discussion)

Notes to the facilitator

- Facilitate a Q&A on all fourteen questions.
- Where necessary, encourage the participants to develop their answers based on the state of affairs in terms of gender equality in their own contexts.

Task 2: Gender perspective of climate change impacts (breakout groups and plenary)

Learning objective: Understand the different impacts that climate change will have on women and men and the root causes and possible solutions to the problem



Group exercise

30 minutes (exercise)

15 minutes (sharing and discussion)

Notes to the facilitator

- **Step 1:** Choose one dimension of human well-being that is susceptible to climate change impacts (e.g. food production, water, natural disaster, health, population displacement).
- **Step 2:** Taking into account gender roles and status, analyse how the issue affects men and how it affects women.
- **Step 3:** Answer the following questions:
 1. Are women and men affected in the same manner by the issue?
 2. Why?

Source: <https://undp.unteamworks.org/node/154980>

Task 3: Group discussion (plenary)

Learning objective: Understand women's unique contributions in fighting climate-induced disasters



Sisters of the Planet - Sahena (Bangladesh)

(video: <http://www.youtube.com/watch?v=WqYgDGy8Z4M>)



7 minutes (video presentation)

20 minutes (group discussion and reflection)

Notes to the facilitator

- Facilitate a discussion on the central theme of the video presentation.
- Encourage a discussion on the following question: “How do women help adaptation/mitigation efforts at the national/local level?”

How the issue affects men and women

<i>Impacts on women</i>	<i>Impacts on men</i>

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