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"Recent studies reveal that not only is women's participation important but also how they participate—and how much.
And because women often show more concern for the environment, support pro-environmental policies and vote for pro-environmental leaders, their greater involvement in politics and in nongovernmental organizations could result in environmental gains, with multiplier effects across all the Millennium Development Goals."

Source: UNDP Asia-Pacific Human Development Report 2011

Overview of linkages between gender and climate change

Background

The degree to which people are affected by climate change impacts is partly a function of their social status, gender, poverty, power and access to and control over resources. Despite the international community's increasing acknowledgement of the differential experiences and skills women and men bring to development and environmental sustainability efforts, women still have lesser economic, political and legal clout and are hence less able to cope with—and are more exposed to—the adverse effects of the changing climate. Drawing on women's experiences, knowledge and skills and supporting their empowerment will make climate change responses more effective. However, the impacts of gender inequalities and women's recurrent socio-economic disadvantages continue to be ignored and remain a critical challenge to adaptation efforts. As the world continues to grapple with what a post-Kyoto climate regime should look like, it is crucial that mitigation and adaptation efforts integrate gender issues at all levels. This will minimize risks to women and children and ensure greater success of efforts to address climate change.

Climate change effects hit the poorest the most

Changing climate is one of the most daunting global challenges of our time. The warmest recorded 13 years of average global temperatures have all occurred between 1997 and 2011. The World Meteorological Organization has indicated that the extent of Arctic sea ice in the year 2011 was the second lowest on record, and its volume was the lowest. This and other climate and global warming effects, including thawing permafrost, sea level rise, increased flooding and shifting seasons, can in turn have negative implications for biodiversity, coastal systems, freshwater resources and livelihoods. Over the next decades, billions of people, particularly those in developing countries, are expected to face shortages of water and food and risks to health and life as a result of climate change (UNFCCC 2007). Key climate change impacts in the Asia-Pacific region 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, severe dust storms and sea level rise.

Climate change can exacerbate poverty and frustrate gains made towards achieving the Millennium Development Goals.⁴ The 2011 Human Development Report observed that climate change continues to threaten livelihoods in low human development index⁵ nations and that climate change may also worsen the most lingering environmental threats such as deforestation, water scarcity and land degradation, which often hit the poorest the most. Moreover, these changes could have a direct human toll, for example due to an increase in natural disasters.

Poverty and climate change are closely related. The poorest and most disadvantaged groups tend to depend on climate-sensitive livelihoods (e.g. agriculture), which makes them disproportionately vulnerable to climate change.7 These groups also lack the resources needed to weather harsh climatic impacts (e.g. better houses, drought resistant crops). This diminished adaptive capacity makes them even more vulnerable, forcing them to engage in unsustainable environmental practices such as deforestation in order to sustain their well-being.8

Climate change is not gender-neutral

Women in developing countries are particularly vulnerable to climate change because they are highly dependent on local natural resources for their livelihood. Women charged with securing water, food and fuel for cooking and heating face the greatest challenges. Women experience unequal access to resources and decision-making processes, with limited mobility in rural areas. It is thus important to identify gender-sensitive strategies that respond to these crises for women.9

A number of factors account for the discrepancy between women's and men's differentiated exposure and vulnerability to climate change risks. First, gender-based differences in time use, access to assets and credit and treatment by markets and formal institutions (including the legal and regulatory framework) constrain women's opportunities. As a result, there is a global gender gap in earnings and productivity—women make between 30 and 80 percent of what men earn annually. A World Bank survey in 141 countries showed that 103 countries continue to impose legal differences on the basis of gender that may hinder women's economic opportunities.¹⁰ In addition, two thirds of the world's 743 million illiterate adults are women. 11 Although women make up 43 percent of the overall agricultural labour force, percentages vary by region and country. Overall, women make up half of the agricultural labour force in the least developing countries, while in developing countries (where

data is available), they own between 10 and 20 percent of the land. ¹² The cumulative effects of poverty and social, economic and political barriers is that women will often be disadvantaged in coping with the adverse impacts of the changing climate. ¹³

Second, compared to men, women face huge challenges in accessing all levels of policy and decision-making processes. This renders them less able to influence policies, programmes and decisions that impact their lives.

Third, socio-cultural norms can limit women from acquiring the information and skills necessary to escape or avoid hazards (e.g. swimming and climbing trees to escape rising water levels).¹⁴ Similarly, dress codes imposed on women can restrict their mobility in times of disaster, as can their responsibility for small children who cannot swim or run.¹⁵ Such social influences render women disproportionately vulnerable to disasters and related negative effects of climate change.

Fourth, a lack of sex disaggregated data in all sectors (e.g. livelihoods, disasters' preparedness, protection of environment, health and well-being) often leads to an underestimation of women's

Gender-based vulnerability to climate change: Fast Facts

- Women are not well represented in decision-making processes, which constrains their ability to meaningfully participate in decisions on adaptation and mitigation.
- Globally, only 17 percent of cabinet and 19 percent of parliament members are women; out of eleven Pacific island developing economies that were studied, five had no women members in parliament at all.
- A global gender gap in earnings and productivity persists across all forms of economic activity; women make between 30 percent and 80 percent of male annual income. Restricting job opportunities for women has been costing the region approximately \$44 billion a year.
- An study by the Organisation for Economic Co-operation and Development (OECD) classified women's access to land as "very limited" in a number of countries within the Asia-Pacific region.³
- → For those developing countries globally for which data was available, only between 10 and 20 percent of all landholders are women.
- **↗** Burning biomass fuel indoors leads to 2 million deaths per year (mainly women and children).
- In 2007, the estimated number of women and girl children who were "missing"—the number of excess female deaths—was 484,000 in Asia (excluding central Asia). Globally, 3.9 million women and girls go "missing" each year.
- During the past decade in the Asia-pacific region, an annual average of more than 200 million people was affected and more than 70,000 people were killed by natural disasters (90 percent and 65 percent respectively of global totals for natural disasters). Women and children make up the majority of deaths resulting from water-related disasters.

Note: a) OECD, Gender, Institutions and Development Database, 2012; available at: http://www.oecd.org/dev/povertyreductionandsocialdevelopment/genderinstitutionsanddevelopmentdatabase.htm.

Sources: FAO 2011; Nellemann 2011; Perch 2011, UNDP 2010; UNESCAP 2011; World Bank 2011; WHO 2011, OECD 2012.

roles and contributions. This situation can then result in gender-blind climate change policy and programming, which does not take into account the gender differentiated roles of both women and men (i.e. their distinct needs, constraints and priorities). As such, such policies and programming can have the unintended effect of actually increasing gender-based vulnerability.

Women add value to the climate effort

Women play a pivotal role in natural resources management

and in other productive and reproductive activities at the household and community levels. This puts them in a position to contribute to livelihood strategies adapted to changing environmental realities. Their extensive knowledge and expertise—that can also be used in climate change mitigation, disaster reduction and adaptation strategies—make them effective actors and agents of change.¹⁶

Numerous examples demonstrate that communities fare better during natural disasters when women play a leadership role in early warning systems and reconstruction. Women tend to share information related to community well-being, choose less polluting energy sources and adapt more easily to environmental changes when their family's survival is at stake.¹⁷ A 2000 study found that women in South Asia displayed enormous strength and capacity throughout the entire disaster cycle: preparing for hazards, managing after a disaster and rebuilding damaged livelihoods. Activities included ensuring food and water for the family, securing seed and other productive material and taking care of the sick and elderly.¹⁸

Research has also revealed the importance of gender equality and women's empowerment to environmental sustainability and achievement of the Millennium Development Goals.¹⁹ Greater female participation in economic development will lead to productivity gains.²⁰ It is estimated, for example, that if women's paid employment rates were raised to the same level as men's, the gross domestic products of the United States, the European Union and Japan would see increases by 9, 13 and 16 percentage points, respectively.²¹

Women's greater participation is also likely to enhance the effectiveness and sustainability of climate change projects and policies. For example, women tend to be very effective at mobilizing communities in the event of disasters and disaster risk management and reduction²² and have a clear understanding of what strategies are needed at the local level.

Women as positive agents of change

Women's activities in food production, community management, natural-resource and biodiversity management, education of children and family care place them at the centre of development. They are the collectors of fuel and water for their families, and users of energy to prepare food and care for the sick. In developing countries, they engage substantially in agricultural production, both paid and unpaid...Thus, recognizing and supporting the activities and needs of women is essential for socio-economic development.

Source: United Nations Conference on Trade and Development, 'Applying a Gender Lens to Science, Technology and Innovation', Current Studies on Science, Technology and Innovation, 5th ed., Geneva, 2011

International recognition of the importance of supporting women and gender equality is increasing. For example, the Organisation for Economic Co-operation and Development's official development assistance for the advancement of gender equality tripled from 2002 to 2006 (from \$2.5 billion to \$7.2 billion).²³ Nevertheless, considerable gender-based barriers continue to exist across the major pillars of international and national policy processes on climate change.

Recommendations for action

- **7** Conduct an in-depth and evidence-based analysis of women's and men's roles in sectors impacted by, and their strategies for coping with, climate change. Improved understanding of women's and men's knowledge, roles and abilities will provide a solid basis for policy and programmes developed to address and combat climate change impacts.
- **7** Integrate gender perspectives throughout climate change programming in order to effectively address both women's and men's needs and priorities, ensure the full and meaningful participation of women and achieve gender-equitable outcomes. Climate change actions need to be based on consultation with women, build and incorporate their skills and knowledge, and provide opportunities for improving health, education and livelihoods. Increasing women's participation would result in more environmental and productivity gains and would create mutual benefits and greater returns across the Millennium Development Goals. Likewise, women's increased involvement in adaptation and mitigation efforts would enhance the efficacy and sustainability of such efforts. Gender considerations and women's issues, needs and contributions should be integrated across the planning and execution cycle of climate change policies and projects.
- Ensure mitigation and adaptation efforts also address sources of gender-based vulnerability, gender inequality and poverty. Because economic, legal and sociocultural constraints can lead to women's capacity gaps, climate change responses need to address women's historic and current disadvantages. As such, policy and programming should recognize that because of their central role in environmental, social and economic development, women's empowerment and gender equality is beneficial for family and community well-being and livelihoods and are key factors in promoting the resiliency of economies and communities. Actions, technologies and strategies need to be pro-poor and gender-responsive in their design, implementation, monitoring and evaluation. Looking forward, the Nationally Appropriate Mitigation Actions and National Adaptation Plans (established under the United Nations Framework Convention on Climate Change) provide opportunities to develop climate change policy and implement projects that benefit women and the poor as well as contribute towards the broader effort of responding to the ill-effects of climate change.
- **7** Incorporate gender perspectives into national and international climate chance finance mechanisms and strategies.²⁴ For efficient, effective and inclusive financing, gender must play an essential role, informing all policies and programming. In this effort, gender-sensitive structures, guidelines, projects and tools need to be developed for all climate change financing mechanisms supporting adaptation and mitigation actions, at all levels. Additionally, to help address the historical, political and socio-economic constraints faced by many women as well as larger sustainable development objectives, gender-based criteria should be developed for fund allocation, including project identification, design and performance objectives.

Policy brief



Overview of linkages between gender and climate change

"Gender inequalities intersect with climate risks and vulnerabilities. Women's historic disadvantages—their limited access to resources, restricted rights, and a muted voice in shaping decisions—make them highly vulnerable to climate change. The nature of that vulnerability varies widely cautioning against generalization. But climate change is likely to magnify existing patterns of gender disadvantage."

Source: United Nations Development Programme, Human Development Report 2007/2008 – Fighting climate change: Human solidarity in a divided world, New York, 2007.

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