



## GENDER AND CLIMATE CHANGE

# Overview of linkages between gender and climate change

The Earth's climate is changing already and failure to limit warming to below 2°C could make the changes in the climate system irreversible and characterized by cataclysmic consequences. The adverse impacts of climate change continue to overly burden the poorest and the most vulnerable, especially poor women. Despite growing recognition of the differential vulnerabilities as well as the unique experiences and skills women and men bring to development and environmental sustainability efforts, women still have less 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. On the other hand, women are powerful agents of change and continue to make increasing and significant contributions to sustainable development, despite existing structural and sociocultural barriers. As the global community transitions to the implementation phase of the post-2015 development agenda, it is imperative that gender equality and women's empowerment continue to influence, shape and drive the collective climate and human development effort.

## *There can be no genuine sustainable human development without gender equality*

The year 2015 marked a number of pivotal achievements for gender and sustainable development. An ambitious agenda to guide development action for the next 15 years<sup>1</sup> was launched through the 17 Sustainable Development Goals (SDGs), putting a much-needed spotlight on poverty, inequality, and violence against women as key challenges of the 21st century. Similarly, the Sendai Framework for Disaster Risk Reduction 2015–2030, a successor instrument to the Hyogo Framework for Action 2005–2015, incorporated key recommendations on gender-sensitive Disaster Risk Reduction (DRR) and promoted a stronger role for women in building resilience. The 2015 Paris Agreement also calls for gender equality and women's empowerment, and its provisions on adaptation and capacity-building efforts urge member states to adopt gender-responsive approaches. Further, many Intended Nationally Determined Contributions (INDCs) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) as part of the implementation regime of the Paris Agreement reflect gender priorities in their pledges for climate action.<sup>2</sup>

Looking forward, the key question is *how to translate the ambitious goals and aspirations set forth in the global (and national) post-2015 sustainable development and climate platforms into concrete actions that stabilize the Earth's systems and promote human development*. Gender equality and the empowerment of women must shape and drive future development and climate actions and investments.

### *Box 1 Climate change and gender context: IPCC*

***“Differences in vulnerability and exposure arise from non-climatic factors and from multidimensional inequalities often produced by uneven development processes (very high confidence). These differences shape differential risks from climate change. (. . .) People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses (medium evidence, high agreement). This heightened vulnerability is rarely due to a single cause. Rather, it is the product of intersecting social processes that result in inequalities in socioeconomic status and income, as well as in exposure. Such social processes include, for example, discrimination on the basis of gender, class, ethnicity, age, and (dis)ability.”***

Source: IPCC, ‘Summary for Policymakers’, in *Climate Change 2014: Part A*, p. 6<sup>3</sup>



## *Climate change can undo decades of development*

Climate change is perhaps the greatest threat to sustainable development. Earth temperatures have exceeded global annual averages for 39 consecutive years – the temperature of Earth for the year 2015 was the hottest in recorded history. 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.<sup>4</sup> According to a recent report of the UN Secretary-General, the cost of disasters, mainly climate-related, has reached an average of \$250 billion to \$300 billion a year<sup>5</sup> – during 2003–2013, disasters cost nearly \$1.5 trillion in worldwide economic damage.<sup>6</sup> Impacts are being felt in all corners of the world – extreme weather events, heatwaves and droughts have increased in frequency and intensity, often with damaging effects to agriculture, fishing and other livelihoods. Climate change can jeopardize gains made by the global community in important domains such as food security and access to health and education.<sup>7</sup>

Although the effects of climate change on ecosystems and livelihoods vary by region and season, they are harsher on those living in already marginal conditions.<sup>8</sup> Moreover, these changes could exacerbate chronic environmental threats (such as deforestation, water scarcity and land degradation) that most affect the poorest.<sup>9</sup> For example, around 350 million people, mostly poor, live in or near forests on which they rely for their livelihoods – thus, climatic stress on forests could hurt the poor.<sup>10</sup> Similarly, around 1.3 billion people who live in fragile ecological areas (e.g., arid zones, on slopes, in areas with poor soils or in forest ecosystems) continue to see their livelihoods endangered from biodiversity loss exasperated by climate change.<sup>11</sup> The poor and other marginalized segments of society are especially vulnerable to climate change since their livelihoods are often highly dependent on natural resources that are sensitive to climate variability.<sup>12</sup> 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.<sup>13</sup>

## Box 2 *NDCs – An opportunity to revisit national priorities on gender*

*There has been significant recent progress in elevating gender in climate change planning at the national and global levels. Global examples include the Green Climate Fund (GCF), which has mandated a gender-sensitive approach in its charter and put in place a gender policy and a gender action plan to guide its operations. At the national level, countries such as Honduras and Peru have prioritized high levels of gender integration in their climate change policy and planning documents. The latest examples of progress comes from the inclusion of gender dimensions in a selection of Intended Nationally Determined Contributions (INDCs), submitted under the United Nations Framework Convention on Climate Change (UNFCCC) in Paris in 2015 (COP 21).<sup>14</sup>*

*INDCs are principally pledges for climate action that represent each member country's assessment of how much they will reduce their greenhouse gas emissions. However, many countries seized the opportunity to embed climate policies within their broader developmental programmes and priorities. Accordingly, about 40 percent of INDCs explicitly mentioned 'gender' and/or 'women' in their national ambitions on climate change mitigation – most of these countries "identify gender as a cross-cutting policy priority, or commit to integrating or mainstreaming gender into all climate change actions, strategies and policies."<sup>15</sup> Liberia, Peru and Jordan went a step further and actually reference their gender and climate change action plans in their INDCs. As countries move into the implementation phase of the Paris Agreement, their Nationally Determined Contributions (NDCs), and other related national adaptation and mitigation instruments, there is a huge potential for embedding gender-responsive and gender-transformative approaches that promote women's empowerment while also delivering results for zero-carbon and climate-resilient futures. Like NDCs, other similar instruments such as the national low-emission development strategies and, in the case of adaptation, the National Adaptation Plans (NAPs), provide even more scope and opportunity for mainstreaming gender considerations in adaptation and development planning.*

## *Climate change is not gender neutral*

The poor and marginalized segments in many societies (women, the elderly, immigrants, indigenous groups, etc.) are structurally vulnerable.<sup>16</sup> Climate change impacts men and women differently, largely due to their gender-differentiated relative powers, roles and responsibilities at the household and community levels. Women tend to be overly burdened with household work and caring for children, the sick and the elderly. For example, during the Asian tsunami in 2004 (70 percent of the victims were women), many women and children were trapped inside their homes while most men were out in the open. Further, cultural and religious norms on respective gender roles sometimes limit women's abilities to make quick decisions in disaster situations and, in some cases, the clothes they wear and/or their responsibilities in caring for children could hamper their mobility in times of emergency.<sup>17</sup> Disparities in economic opportunities and access to productive resources also render women more vulnerable to climate change because they are often poorer, receive less education, and are not involved in political, community and household decision-making processes that affect their lives. Women tend to possess

fewer assets and depend more on natural resources for their livelihoods.<sup>18</sup> The law backs the disparity in most cases – a recent study by the World Bank indicates that 155 of the 173 economies it covered have at least one law impeding women's economic opportunities.<sup>19</sup> For example, women do not always enjoy the same rights as men to land, a crucial resource for poverty reduction, food security and rural development. Although women make up more than 40 percent of the overall agricultural labour force in the developing world (ranging from 20 percent in Latin America to 50 percent or more in parts of Africa and Asia), they own between 10 and 20 percent of the land.<sup>20</sup> Poverty, along with socio-economic and political marginalization, therefore cumulatively put women in a disadvantaged position in coping with the adverse impacts of the changing climate.

### Box 3 *Climate change and the gender gap*

- *Eighty percent of people displaced by climate change are women.*
- *Globally, women earn 24 percent less than men and hold only 25 percent of administrative and managerial positions in the business world – 32 percent of businesses have no women in senior management positions. Women still hold only 22 percent of seats in single or lower houses of national parliament.*
- *Nine in ten countries have laws impeding women's economic opportunities, such as those which bar women from factory jobs, working at night, or getting a job without permission from their husband.*
- *A study using data from 219 countries from 1970 to 2009 found that, for every one additional year of education for women of reproductive age, child mortality decreased by 9.5 per cent.*
- *Two million women and children – four a minute – die prematurely due to illness caused by indoor air pollution, primarily from smoke produced while cooking with solid fuels.*
- *More than 70 percent of people who died in the 2004 Asian tsunami were women. Similarly, Hurricane Katrina, which hit New Orleans (USA) in 2005, predominantly affected poor African Americans, especially women.*
- *Women do not have easy and adequate access to funds to cover weather-related losses or adaptation technologies. They also face discrimination in accessing land, financial services, social capital and technology.*
- *If all countries were to match the progress toward gender parity of the country in their region with the most rapid improvement on gender inequality, as much as \$12 trillion could be added to annual global GDP growth in 2025.*

Sources: UNDP (2015); FAO (2011); UNFPA and WEDO (2009); World Bank Group (2015); Gakidou et al. (2010); MGI (2015); UNDP (2015a)<sup>21</sup>



## *Women's empowerment is key to the success of climate actions*

Gender equality is a fundamental human right, but there are economic imperatives for promoting equality in climate-development policy. Women play a pivotal role in natural resources management as well as 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 conditions. Such knowledge and capabilities can and should be deployed for/in climate change mitigation, disaster reduction and adaptation strategies.

Studies demonstrate that gender equality and women's empowerment are central to economic development as well as environmental sustainability. For example, recent research from the McKinsey Global Institute (MGI) finds that if women were to participate in the economy “identically to men”, they could add as much as \$28 trillion or 26 percent to annual global GDP (roughly the combined size of the current US and Chinese economies) by 2025.<sup>22</sup> 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.<sup>23</sup> Similarly, the increased participation of women is crucial to the climate effort – for example, there is evidence that women play a vital role in dealing with disasters by effectively mobilizing communities in the different phases of the risk-management cycle; thus their greater involvement would contribute substantively to disaster risk management and reduction.<sup>24</sup> Although today there is a greater understanding of the need to incorporate gender perspectives into climate change policy, there are still considerable gender-based barriers across the major pillars of international and national policy processes on climate change (see Box 1: Climate change and the gender gap). Meaningful participation by women will enhance the effectiveness and sustainability of climate change projects and programmes and help address existing inequities while working towards fulfilling the respective international agreements calling for the equality and empowerment of women.

### *Key Messages*

- **Integrate gender perspectives into mitigation and adaptation actions.** Climate change actions need to be based on consultation with women, to build and incorporate their skills and knowledge, and to 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 SDGs, including SDG 5 (gender equality and women's empowerment) and SDG 13 (action to combat climate change). Women's issues, needs and contributions should be integrated across the planning and execution cycles of climate change policies and projects.
- **Ensure that adaptive actions aim to build up the asset base of women.** As assets largely determine the extent to which people are affected by climate change and can respond to it, building the adaptive capacities of women needs to incorporate interventions that shore up women's productive and reproductive resources, including land, access to credit and education.

- **Ensure mitigation and adaptation efforts also address sources of gender-based vulnerability, gender inequality and poverty.** 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, NDCs as well as other climate-related global and national endeavours such as the Nationally Appropriate Mitigation Actions (NAMAs) and National Adaptation Plans (NAPs) provide opportunities to operationalize effective national climate change policy and programming that is co-beneficial to women and other marginalized segments of society.
- **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 the differentiated impacts of climate change on both genders.

## REFERENCES

1. United Nations, 'Transforming our World: The 2030 Agenda for Sustainable Development' (Adopted by the General Assembly on 25 September 2015, New York), document A/RES/70/1.
2. United States Agency for International Development (USAID), 'Gender in Mitigation Actions', Environment & Gender Information (EGI) Brief I, April 2016 Edition; see United Nations Development Programme (UNDP), 'Gender Equality in National Climate Action: Planning for gender-responsive Nationally Determined Contributions' (2016).
3. Intergovernmental Panel on Climate Change (IPCC), 'Summary for Policymakers', in Climate Change 2014: Impacts, Adaptation, and Vulnerability, Part A: Global and Sectoral Aspects, Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Field, C. B. and Barros, V. R. et al., eds. (Cambridge, U.K. and New York: Cambridge University Press, 2014), pp. 1–32.
4. Ibid.
5. United Nations, 'Implementation of the International Strategy for Disaster Reduction: Report of the Secretary-General', 4 August 2015, document A/70/282.
6. Food and Agricultural Organization of the United Nations (FAO), 'The impact of disasters on agriculture and food security' (Rome: FAO, 2015).
7. United Nations Development Program (UNDP), 'UNDP and Climate Change: Zero Carbon, Sustainable Development', 2015a; see also UNDP, Human Development Report (New York: UNDP, 2010); and the World Bank, World development report 2010: development and climate change (Washington, D.C.: World Bank, 2010).
8. IPCC, 'Summary for Policymakers', in Climate Change 2014: Part A; World Bank, Human development report 2010.
9. UNDP, Human Development Report 2015: Work for Human Development (New York: UNDP, 2015b); UNDP, Human Development Report 2014. Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience (New York: UNDP, 2014); World Bank, Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience, A report for the World Bank by the Potsdam Institute for Climate Impact Research and Climate Analytics (Washington, D.C.: World Bank, 2013).
10. Toulmin, C., Climate Change in Africa (London: Zed Books, 2009).
11. UNDP, Human Development Report 2014.
12. Dankelman, I., ed., Gender and Climate Change: An Introduction (London: Earthscan, 2010); Food and Agriculture Organization (FAO), The State of Food and Agriculture: Closing the Gender Gap for Development (Rome: FAO, 2011).
13. UN WomenWatch, 'Fact Sheet: Women, Gender Equality and Climate Change', 2009.
14. UNDP, 'Gender Equality in National Climate Action: Planning for gender-responsive Nationally Determined Contributions' (2016); Aguilar, L., Granat, M. and Owren, C., Roots for the future: The landscape and way forward on gender and climate change (Washington, D.C.: IUCN and GGCA, 2015); Tatiana Gumucio and Mariana Tafur Rueda, 'Influencing Gender-Inclusive Climate Change Policies in Latin America', Journal of Gender, Agriculture and Food Security 1, no. 2 (2015), pp. 42–61.
15. USAID, 'Gender in Mitigation Actions' (2016).
16. UNDP, Human Development Report 2014.
17. Wong, S., 'Can Climate Finance Contribute to Gender Equity in Developing Countries?' Journal of International Development 28, no. 3 (2016), pp. 428–444; Institute of Development Studies (IDS), 'Gender and Climate Change: Mapping the Linkages – A Scoping Study; on Knowledge and Gaps', June 2008.
18. Mearns, R. and Norton, A., eds., Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World (Washington, D.C.: World Bank, 2010); IDS, 'Gender and Climate Change' (2008).
19. World Bank Group, Women, business and the law 2016: Getting to equal (Washington, D.C.: World Bank, 2015).
20. FAO, The State of Food and Agriculture (2011); World Bank, World Development Report 2012 – Gender Equality and Development (Washington, D.C.: World Bank, 2011).
21. UNDP, 'UNDP and Climate Change' (2015a); FAO, The State of Food and Agriculture (2011); World Bank Group, Women, business and the law 2016 (2015); Gakidou, E. et al., 'Increased Educational Attainment and its Effect on Child Mortality in 175 Countries between 1970 and 2009: A Systematic Analysis', Lancet 376, no. 9745 (2010); UNFPA and WEDO, 'Women at the Forefront', Climate Change Connections 1 (2009); McKinsey Global Institute (MGI), 'The Power of parity: How Advancing Women's Equality Can Add \$12 Trillion to Global Growth', September 2015.
22. MGI, 'The Power of parity' (2015).
23. See UNDP, Human Development Report 2011. Sustainability and Equity: A Better Future for All (New York: UNDP, 2011).
24. Carvajal-Escobar, Y. et al., 'Women's role in adapting to climate change and variability', Advances in Geosciences 14 (2008), pp. 277–280.



*Empowered lives.  
Resilient nations.*



MINISTRY FOR FOREIGN  
AFFAIRS OF FINLAND

#### **Disclaimer**

The views expressed in this publication are those of the author(s) and do not necessarily represent those of the United Nations, including the United Nations Development Programme (UNDP), or their Member States.

© 2016 United Nations Development Programme

All rights reserved

#### **Author**

Senay Habtezion

#### **Contributors**

Jennifer Baumwoll, Daniela Carrington,  
Verania Chao, Kalyan Keo, Stanislav Kim,  
Nataly Olofinskaya, Bharati Sadasivam,  
Allison Towle and Yolanda Villar.

© Abbie Traylor-Smith / Panos Pictures /  
Department for International Development



**United Nations Development Programme**  
304 East 45th Street, New York, NY 10017, USA  
[www.undp.org/gender](http://www.undp.org/gender)