Introduction

Over the past twenty years, a broad scientific consensus has emerged on the fact that climate change is one of the most urgent issues of our time, bringing environmental and socio-economic implications that threaten both industrialized and less industrialized world regions. A much smaller community of scholars and practitioners has documented the linkages between climate change and gender inequality, showing differentiated impacts on men and women because of the gender division of labour and differences in use, control, and ownership of assets and natural resources (Masika 2002; Dankelman 2010; Tovar-Restrepo 2010; Arora-Jonsson 2011). The central argument is that climate change exacerbates existing gender inequality and so strategies for addressing it must take into account not only gender but also other intersecting markers of power and identity such as income, ethnicity, race, religion, ability/disability, age, literacy, migratory status, and geographical location (Crenshaw 1989; Khosla and Masaud 2011; Bastia 2014). All of these factors lead to differences in exposure to risk and vulnerability in the face of climate changes. Climate change impacts disproportionately affect poor, rural and indigenous women in non-industrialized countries and yet they are less able to cope and recover than men (Enarson 2000; Dankelman 2009; WEDO-GGCA-IUCN-UNDP 2009). Thanks to the work of many women’s advocacy organizations, some gender-sensitive policies have been included in multilateral climate change and environmental agreements such as the United Nations Framework Convention on Climate Change (UNFCCC) and Reducing Emissions from Deforestation and Forest Degradation (REDD+; see Box 28.1). However, even though there have been a few improvements in this regard, climate change planning continues to ignore debates on gender and fails to address differentiated vulnerability, impacts, and resilience conditions between men and women.

This chapter provides an overview of the connections between climate change and gender, using action research on REDD+ that was conducted in 2011 in Tanzania, Nepal, Ecuador, and Brazil to demonstrate the needs and benefits of mainstreaming gender, age, location, and ethnicity when trying to achieve more sustainable human settlements. This research project...
**Box 28.1 What is REDD+?**

REDD+ stands for: ‘Reducing emissions from deforestation and forest degradation plus sustainable management of forests, conservation of forest carbon stocks and enhancement of forest carbon stocks’.

Degradation and deforestation of the world’s tropical forests are cumulatively responsible for about 10 per cent of net global carbon emissions. Thus tackling the destruction of tropical forests is core to any concerted effort to combat climate change. REDD is a policy mechanism that is part of the UNFCCC negotiations. It intends to incentivize a break from historic trends of increasing deforestation rates and greenhouse gases emissions. It is a framework through which developing countries are rewarded financially for any emissions reductions achieved associated with a decrease in the conversion of forests to alternate land uses. Having identified current and/or projected rates of deforestation and forest degradation, a country taking remedial action to effectively reduce those rates will be financially rewarded relative to the extent of their achieved emissions reductions. In its infancy, REDD was first and foremost focused on reducing emissions from deforestation and forest degradation. However, in 2007 the Bali Action Plan, formulated at COP-13 to the UNFCCC, stated that a comprehensive approach to mitigating climate change should include ‘[p]olicy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries’. A year later, this was further elaborated on as the role of conservation, sustainable management of forests and enhancement of forest carbon stocks was upgraded so as to receive the same emphasis as avoided emissions from deforestation and forest degradation. Finally, in 2010, at COP-16 as set out in the Cancun Agreements, REDD became REDD-plus (REDD+), to reflect the new components. REDD+ now includes:

1. Reducing emissions from deforestation;
2. Reducing emissions from forest degradation;
3. Conservation of forest carbon stocks;
4. Sustainable management of forests;
5. Enhancement of forest carbon stocks.

Within its remit, REDD+ has the potential to simultaneously contribute to climate change mitigation and poverty alleviation, while also conserving biodiversity and sustaining vital ecosystem services. This potential for multiple benefits raises the crucial question of to what extent the inclusion of development and conservation objectives may help or hinder the overall success of, and negotiations for, a future REDD+ framework (explicitly for climate change mitigation). Having said this, prospective co-benefits can easily transform into prospective co-detriment, making the earlier question arguably irrelevant. Aside from whether consideration of such factors will promote or hamper the success and negotiations of a REDD+ framework, they are unquestionably important for the creation of a sustainable and equitable REDD+ process.

*Source: [http://theredddesk.org/what-redd#toc-2](http://theredddesk.org/what-redd#toc-2)*
from which my data are taken was conducted by the Women’s Environment and Development Organization (WEDO; see Box 28.2) in partnership with and the REDD+ Social and Environmental Standards Initiative (REDD+SES; see Box 28.3).¹ The purpose was to ‘unpack and address the links between gender, safeguards, and standards in REDD+ [in order] to move beyond the conceptual level and generate suggestions for strengthening REDD+ from in-country research based on the lives of women and men in forest communities’ (Owen in WEDO-REDD+SES 2013). Research findings presented here are primarily oriented to policy and planning and seek to contribute to the broader theoretical agenda within feminist research on climate change which, as MacGregor (2010) has pointed out, is urgently needed. Building on lessons learned from this research, I present guidelines that, from a feminist perspective, should be taken into account in climate change planning processes. I argue that actions taken to mitigate and/or adapt to climate change should be designed, implemented, and monitored from a gender perspective in order to achieve sustainable resource management, to improve livelihoods, and to promote gender equality. My argument resonates with the main conclusions and evidence presented by the research project.

**Box 28.2 The Women’s Environment and Development Organization (WEDO)**

The Women’s Environment and Development Organization (WEDO) was established in 1990 by a US Congresswoman (Bella Abzug) and a US journalist (Mim Kelber). It is a global women’s advocacy organization working to promote human rights, gender equality, and the integrity of the environment. Its mission is to ensure women’s rights and economic and environmental justice and to advocate for the inclusion of sustainable development principles in national policies, programs, and practices.

WEDO’s central purpose is to mobilize and empower women to participate in conferences, forums, and other policy-making processes, so that their voices are heard and their perspectives taken into account in traditionally male dominated policy areas such as the environment, development, or population. WEDO organizes women from all over the world to allow them to contribute to these decision-making processes, principally (but not exclusively) at the international level, such as at the UN. In November 1991, for example, WEDO organized the World Women’s Congress for a Healthy Planet, which produced a strategy document which it presented to the UN Conference on the Environment and Development (UNCED). This subsequently became *Women’s Action Agenda 21*, and was included in the UN’s *Agenda 21* and the Rio Declaration of 1992.

WEDO’s work includes running and participating in conferences; capacity building and training work; awareness-raising; and facilitating networks of relevant NGOs and other stakeholders. It works in partnerships with governments, civil society organizations including women’s, human rights, environmental and development organizations, intergovernmental organizations, and other stakeholders. It also runs projects, currently under three broad themes of Women’s Leadership, Sustainable Development, and Global Governance.

In 2006 WEDO won the Champion of the Earth award by the United Nations Environment Program for its work on sustainable development.

*Website:* http://www.wedo.org

(Source: Doyle et al. 2015)
The chapter is divided into three sections. In the next section, I present key concepts and linkages between gender and climate change, explaining how these links are relevant to adaptation and mitigation strategies such as REDD+. I then discuss the main research findings, highlighting issues to be taken into account when implementing a gender-responsive action plan. Finally, I suggest a set of guidelines for gender-responsive climate change policy and planning processes based on the research findings.

**Climate change and gender: key concepts and linkages**

According to the Intergovernmental Panel on Climate Change (IPCC; 2007), climate change refers to a significant variability in weather patterns over an extended period of time, typically decades or longer. It is linked to carbon emissions commonly produced by human activities, such as clearing forests and burning fossil fuels. Climate change effects are principally higher temperatures in the climate system, including air and ocean temperatures, and an increase in the intensity and frequency of natural disasters, such as flooding or hurricanes that threaten rural and urban ecosystems. Total anthropogenic greenhouse gas emissions continued to increase from 1970 to 2010, with larger absolute decadal increases toward the end of this period, the highest in human history. Without additional efforts to combat climate change, emissions growth is
expected to persist, resulting in temperature increases in 2100 from 3.7°C to 4.8°C compared to pre-industrial levels (IPCC 2014).

Climate change is often presented in scientific language as a problem affecting all humans, but social scientific research shows dramatic variation in its effects on different populations. Kaijser and Kronsell (2014) explain that a feminist intersectionality approach is useful in showing how different individuals and groups relate differently to climate change, due to their situatedness in power structures based on context-specific and dynamic social categorizations. They write:

The responsibility, vulnerability, and decision-making power of individuals and groups in relation to climate change can be attributed to social structures based on characteristics such as gender, socio-economic status, ethnicity, nationality, health, sexual orientation, age, and place. Moreover, the impacts of climate change, as well as strategies for mitigation and adaptation, may reinforce or challenge such structures and categorizations.

(Kaijser and Kronsell 2014:420)

Most negative climate change impacts are faced by poor women and men living in rural and urban areas in low and middle-income countries who have the fewest resources. Extensive research has demonstrated how gender roles and identity constructions determine forms of vulnerability and inequality in climate change events. One observation is that because of social norms and expectations about what it is to be masculine, men are more likely to carry out activities that affect their health and safety, such as pursuing rescue actions or migrating to new and unknown environments. For example, in the case of Hurricane Mitch that hit Honduras in 1998, more men than women died while performing salvage activities (Buvinic et al. 1999). During cyclone floods in Bangladesh in 1991, female mortality was greater because cultural norms of femininity prevented women from having swimming skills (Baden et al. 1994).

Although men are also harmed by climate change in specific ways, it is arguably more important to focus on women because they are generally more vulnerable than men. They are more vulnerable because of their lower socio-economic status and unequal power positioning derived from patriarchal relations (Kabeer 2003). Vulnerable women are those with high exposure to external stresses and shocks, and with high sensitivity to change and low adaptive capacity to adjust in response to actual or expected changes due to their lack of secure access to the assets on which secure livelihoods are built. These tangible and intangible assets are defined as a stock of financial, human, natural, or social resources that can be acquired, developed, improved, and transferred across generations. Assets are linked to capabilities that women and men use to build livelihoods and strengthen their agency to reproduce, challenge, or change the rules that govern the control, use, and transformation of these assets and resources (Moser 2011; Moser and Stein 2011, 2014). More specifically, poor immigrant or ethnic minority women in low-income countries are more likely to be exposed to climate extremes having a great impact on their wealth and capital goods, health, access to technologies, education, services and information, and opportunities to generate productive assets. As community leaders, caregivers, and heads of households, women face an increase of under-paid and non-paid hours of care-work devoted to their domestic and community spheres resulting from the effects of climate change (Moser 2011; Tovar-Restrepo and Blomstrom 2013). Moreover, under conditions of increasing distress and anxiety, women have reported greater levels of depression, conflict, and sexual violence (Osei-Agyemang 2007).

Despite these negative impacts, women are more than simply ‘vulnerable victims’ of climate hazards. As a report by WEDO et al. (2009) has documented, women have different
capacities and strategies to cope with short- and mid-term climate change crises. They play a crucial role in building more resilient settlements through natural resource management and political participation in climate change decision-making. For this reason, their participation is essential when designing and implementing climate change adaptation and mitigation plans in both rural and urban contexts. Adaptation and mitigation are convergent strategies that should increase resilience and reduce emissions, while helping communities to adapt to and cope with immediate shocks — for example, projects that address conservation and sustainable livelihoods (Drexhage 2006). Adaptation and mitigation need to be framed by a complex understanding of resilience that moves beyond the mainstream meaning provided by the IPCC. The IPCC (2007) defines resilience as people’s ability to absorb climate change impacts and disturbances, strengthening their capacity to adapt to stress and change through self-organization.

Resilience has been extensively discussed (Schoon 2005; Swanstrom 2008; Rao 2013), as it has become a commonly used concept in climate change planning. Different critiques have pointed out the scientific, technical, or physical character that has been given to this term, ignoring the social implications and power relations that are at stake when defining it (Satterthwaite et al. 2007; Fainstein 2010; Rodin 2014). They draw attention to the human dimensions of resilience-building initiatives and to how politics and power mediate the roles of actors involved in these processes, stressing the fact that resilience should transform unequal power relations and institutions (Pelling 2010; Bahadur and Tanner 2014). It is important to echo some of these reflections that highlight the political and social dimensions embedded in the idea of resilience, where contextual needs of different social groups must be taken into account (Satterthwaite 2013; Satterthwaite and Dodman 2013). These works urge practitioners to implement bottom-up initiatives that transform existing hierarchical dominant structures (Shaw 2012). Nevertheless, while these critiques reveal some needed improvements to qualify understandings of resilience, there is still an extended practice of ignoring the gender and intersectional perspectives in most definitions, analysis, and action plans that seek sustainable and resilient human settlements (see, for example, Davoudi 2012 or Wilkinson 2012). They obliterate the fact that unequal gender relations are the most pervasive and ubiquitous forms of inequality. This omission has also permeated adaptation and mitigation strategies that put emphasis on maintaining functioning systems by using top-down approaches that can reinforce gender gaps and women’s vulnerability.

In this regard, it is crucial to address contributions from researchers working in women’s advocacy organizations and gender and environment scholars that provide important insights into the resilience debate. These have shown how building resilience requires addressing access to, control of, ownership, and management of assets, and acknowledging gender equality and equity issues that are closely linked to forms of vulnerability and differentiated climate change impacts. In order to support this claim, the WEDO-REDD+ project took into account a set of principles when working on its climate change mitigation strategy, specifically in regard to deforestation and the lives of people in forest communities. The strategy states that in order to transform unequal power relations that are embedded in cultural norms, institutions, and behaviours, climate change policies, and actions should be:

Gender sensitive and gender responsive — by considering socio-cultural norms and discriminations in order to acknowledge the different rights, roles, and responsibilities of women and men in a community, and the relationships between them. Gender sensitive policies, programs, administrative and financial activities, and organizational procedures will differentiate between the capacities, needs, and priorities of women and men; ensure that the views and ideas of both women and men are taken seriously; consider the implications of decisions on the situation of women relative to
men; and take actions to address inequalities or imbalance between women and men. These actions might include including planning, programming, and budgeting.

*Gender transformative* – by recognizing gender as a central dimension to achieve positive development outcomes; by transforming unequal gender relations, promoting shared power and control of resources; and guaranteeing gender-balanced participation in decision-making that supports women’s empowerment.

The WEDO-REDD+ project sought to translate these principles into concrete actions during its fieldwork, projecting its outcomes into policy and climate change planning activities as described in the following section.

**REDD+SES as climate change planning in Brazil, Ecuador, Nepal, and Tanzania**

The REDD+SES is an initiative designed in 2009 to respond to climate change by reducing carbon emissions and deforestation while contributing to human rights, poverty alleviation, and biodiversity conservation. It seeks to protect forests and extend climate change mitigation measures into areas of conservation, sustainable forest management, and enhancement of carbon stocks. Forests are crucial for mitigating climate change effects and providing food resources, energy, and water provisions especially for rural populations from non-industrialized countries. REDD+SES is a comprehensive framework of key issues, including principles, criteria, and indicators that are intended for use in addressing the social and environmental performance of its program implementation, recognizing the potential risks and benefits to different social groups such as indigenous peoples, local communities, and women. The standards provide guidance in designing REDD+ programs, using a multi-stakeholder approach that provides a mechanism for reporting on the social and environmental performance of REDD+ programs.

In February 2012 the REDD+SES initiative began a comprehensive process of reviewing the principles, criteria, and indicators (the content) and the guidelines for using REDD+SES on a national level (the process). This led to a partnership between the REDD+SES secretariat and WEDO to undertake a year-long action research project in four countries using REDD+SES: Brazil (State of Acre), Ecuador, Nepal, and Tanzania. The partners identified research as a necessary tool for understanding context-specific issues in order to strengthen the REDD+ gender dimension, taking into account ethnicity and location as primary identity markers of inequality in these contexts. By linking capacity-building strategies to the research process, the project enhanced the skills of stakeholders to address gender considerations. A main outcome was a practical guide on how REDD+SES programs could effectively address gender equality and the advancement of women’s rights. This tool consists of three easy and practical ‘action checklists’ to ensure that their strategies and programs address gender considerations. The target audience is policy makers, program officers, and practitioners – those who will be developing the REDD+ national strategy or program. However, the action checklists may be adapted for a number of different situations, processes, programs, or projects, particularly within the forest sector. This instrument can also be used for evaluation and monitoring of the incorporation of gender considerations throughout program development and implementation.

The project investigated the following five context-specific issues:

1. gender-differentiated relationships with forests, specifically, use and control of forest resources;
2. gender inequalities women face in issues related to forest conservation strategies;
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3 challenges, best practices and opportunities identified in REDD+ pilot projects;
4 women’s knowledge, capacities, and networks; and
5 risks and opportunities for women in REDD+.

These issues were investigated with a view to developing suggestions for addressing the gender dimension in each country’s REDD+ SES process. Given the space limit, only the first four issues are discussed in this section of the chapter (the full report is available online; WEDO-REDD+ 2013).

Methodology

Three types of qualitative research methods were used between March and July 2012. First, participatory workshops were held with policy makers and representatives from national and local women’s organizations, including women from ethnic minorities. Second, site visits and stakeholder interviews were conducted in communities where forestry projects or pilot programs have been developed. The interviews served to document grassroots women’s perspectives on gender-differentiated access and control of forest resources; identify traditional gender inequalities and discriminations; explore actions taken to address gender considerations; determine specific risks and opportunities for women in forest-related (or REDD+) projects; and list actions they would like to see in future projects. Third, interviews were held with key figures including government officials, major stakeholders, implementing partners, and donors to determine the extent to which the gender dimension has been incorporated into initiatives at the national and local levels.

Research findings

What follows is a summary discussion of four of the five key issues that were investigated by the research project.

Gender-differentiated relationships with forests: use and control of resources

Forest resources constitute crucial assets for women and men in the context of climate change events. As mentioned earlier, forests ensure food security and access to energy and water supply, and guarantee biological diversity. The research documented the gendered access to and use of forest resources, showing how women and men are forest managers and primary users of forest biodiversity. Their unique knowledge, experience, and leadership, both formal and informal, contribute to the sustainability of forest ecosystems, especially in the case of indigenous communities. As a result of cultural norms and social roles, women’s lives and livelihoods can be highly dependent on and affected by the health of their local ecosystems (see Aguilar et al. 2011). Research findings show a gender-differentiated relationship to forests in the following ways:

• Women’s and men’s livelihood dependence on forests is different.
• Women and men obtain different products and receive different benefits from forests.
• Women and men have different knowledge, access to, and control over forests.
• Women and men contribute in different ways to forest conservation and management.

The results detailed in Table 28.1 show that women are important forest stakeholders who contribute to the success of forest-related initiatives with specific perspectives, knowledge, and
Table 28.1 Gender-differentiated relationship with forests in the four project countries

<table>
<thead>
<tr>
<th>Gender-differentiated activities in forests</th>
<th>Brazil (Acre)</th>
<th>Ecuador</th>
<th>Nepal</th>
<th>Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women and men:</td>
<td>Women: many activities are similar, but specific roles may differ (e.g., in Brazilian nut extraction, men collect nuts and women crack them)</td>
<td>Men: labour-intensive activities and forest monitoring</td>
<td>Women: forest product collection for household needs</td>
<td>Women and men: many activities are similar, with the following differences:</td>
</tr>
<tr>
<td>Gender-differentiated products obtained from forests</td>
<td>Women: medicinal plants used for home births</td>
<td>Women and men: many products obtained are similar, with the following differences:</td>
<td>Women: NFTP for household needs</td>
<td>Women: products for household use</td>
</tr>
<tr>
<td>Women: medicinal plants used for home births</td>
<td>Men: wood and game (from hunting)</td>
<td>Women: seeds for handcrafts and non-forest timber products (NFTP)</td>
<td>Men: NFTP to sell, and game (from hunting)</td>
<td>Men: products to use in economic activities</td>
</tr>
<tr>
<td>Gender-differentiated benefits (cash and non-cash) obtained from the forests</td>
<td>Women and men: receive cash and non-cash benefits from product exchanges</td>
<td>Men: control the financial returns</td>
<td>Men: tend to sell products and control money</td>
<td>Women and men: receive non cash benefits</td>
</tr>
<tr>
<td>Women and men: receive cash and non-cash benefits from product exchanges</td>
<td>Men: control the financial returns</td>
<td>Products sold for cash differ</td>
<td>Women: responsible for agriculture and receive more benefits when water sources increase</td>
<td>Women: receive little money from selling products</td>
</tr>
<tr>
<td>Gender-differentiated impact of forest loss</td>
<td>Women and men: impacts both, but it has a different impact depending on resource</td>
<td>Women: effects include loss of resources (including NTFP), lack of work sources, loss of traditional medicine, and loss of family unity</td>
<td>Women: domestic work becomes more time intensive, decrease in water resources, and reduced crop and other food production, including cattle</td>
<td>Women: walk longer distance to fetch water and firewood, and lose areas to collect fruits and vegetables</td>
</tr>
<tr>
<td>Women: collect water; thus water loss affects them more</td>
<td>Women: increase in household labour requirements, lack of food security, and longer distances to collect water</td>
<td>Men: time intensive collection of products, limits employment opportunities from forest, migration of</td>
<td>Men: no production of timber, firewood, honey, medicine, and log extraction, which decreases their income</td>
<td></td>
</tr>
</tbody>
</table>
Gender-blind initiatives that do not recognize this reality will continue to reinforce inequalities and will not achieve social, developmental, or environmental benefits, especially at the community level.

Inequalities in women’s access to and control over forest-related resources

The research found that women tend to lack or have less access to land and property ownership, tenure, and rights. They also are less likely to be recognized as forest stakeholders and land users and therefore lack full and effective participation, particularly in decision-making. There are gender inequalities in the distribution of benefits; women have less access to and/or control over benefits relative to men. Table 28.2 shows the results of a detailed analysis of the barriers women face in regards to access to and control over forest-related resources.

<table>
<thead>
<tr>
<th>Gender-differentiated effects of forest conservation</th>
<th>Brazil (Acre)</th>
<th>Ecuador</th>
<th>Nepal</th>
<th>Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women and men: positive impact as it secures natural resource access, increases income, and improves quality of life</td>
<td>Men: lack of animals for hunting, and migration</td>
<td>men in search of employment, and increased alcohol use/dependence due to stress from unemployment</td>
<td>Women and men: can have a negative effect if it affects income</td>
<td>Women and men: increased food security</td>
</tr>
<tr>
<td>Women: can have a negative effect on agricultural practices, food security, and family welfare</td>
<td>Women: breaking traditional boundaries and personal development</td>
<td>Women: increased income generation opportunities</td>
<td>N/A (not discussed)</td>
<td></td>
</tr>
</tbody>
</table>

Table 28.1  (Continued)


Forest management pilot projects: challenges, best practices, and opportunities

In Nepal and Tanzania it was possible to document challenges, opportunities, and best practices in forest management pilot projects that women’s networks have pursued in relation to REDD+. In Nepal these networks have advocated for the inclusion of the gender dimension in both the REDD+ National Strategy and the REDD+SES country process. In the REDD+SES process
Table 28.2 Women’s access to and control over forest-related resources

<table>
<thead>
<tr>
<th>Issue: ‘Do women have . . .?’</th>
<th>Brazil (Acre)</th>
<th>Ecuador</th>
<th>Nepal</th>
<th>Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to forest resources</strong></td>
<td>YES: rely on it for survival</td>
<td>YES: to support their families and communities</td>
<td>YES: extract many resources</td>
<td>YES: collect many products</td>
</tr>
<tr>
<td><strong>Control over cash generated by activities in the forests</strong></td>
<td>NO: sales and financial management done by men</td>
<td>YES: as long as cash comes from sale of products or handicrafts</td>
<td>NO: men tend to make decisions about cash</td>
<td>VARIES: based on location: in some villages women control cash from resources they sell; in others men control cash</td>
</tr>
<tr>
<td><strong>Opportunity to own land or forests</strong></td>
<td>YES: when sufficient financial resources</td>
<td>NO: because they do not receive inheritance according to traditional community governance systems; few exceptions</td>
<td>YES: can own private lands and Forest Act gives women user rights</td>
<td>NO: face many challenges to owning land</td>
</tr>
<tr>
<td><strong>Access to and control over tools and equipment</strong></td>
<td>YES: simple tools, but not specialized or mechanized equipment</td>
<td>NO: tools and equipment are used for men’s work</td>
<td>YES: simple tools but not machines or vehicles</td>
<td>YES: can use all tools</td>
</tr>
<tr>
<td><strong>Access to and control over new technologies</strong></td>
<td>NO: have limited technology</td>
<td>NO: men have access to training and formal education; most men control internet and cell phones</td>
<td>YES: local technologies available for rural areas</td>
<td>YES: in urban areas but limited in rural areas</td>
</tr>
<tr>
<td><strong>Access to and control over credit</strong></td>
<td>NO: law that confers credit rights is recent and needs to be enforced</td>
<td>YES: through development banks</td>
<td>YES: can obtain credit without mortgage</td>
<td>YES: access to some loans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO: complicated through traditional bank system</td>
<td>NO: not involved in decision-making</td>
<td>NO: limiting conditions imposed by income generating institutions</td>
</tr>
</tbody>
</table>

Downloaded By: 10.3.98.104 At: 09:33 23 May 2021; For: 9781315886572, chapter28, 10.4324/9781315886572.ch28
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women were recognized as a separate stakeholder represented by the organization HIMAWANTI. Tanzania, on the other hand, had made advances in developing its National REDD+ Strategy and Action Plan by 2012. Table 28.3 is provided as an example of the findings regarding the pilot projects.

**Women’s knowledge, capacities, and networks**

As agents of change, women possess knowledge, capacities, and networks that are crucial in building resilience and mitigating climate change hazards. Results from workshops demonstrated that rural and indigenous women have traditional practices and knowledge that are directly relevant to sustainable natural resource management. These can be mobilized through:

- capacity building on climate change mitigation actions, especially REDD+SES;
- developing mitigation program components such as REDD+SES principles, criteria and indicators;
- recommendations to mainstream gender into adaptation and mitigation actions, including REDD+; and
- providing best practices and lessons learned that are scaled-up nationally and internationally.

Women in Nepal and Tanzania possessed important knowledge about forest resources, as well as forest management capacities. For example, Nepal’s development of context and gender-specific
Table 28.3 REDD+ pilot projects in Nepal that have successfully addressed risks and maximized opportunities for women

<table>
<thead>
<tr>
<th>Name of the project</th>
<th>Objective</th>
<th>Location</th>
<th>Initial challenges</th>
<th>Good practices developed and implemented</th>
</tr>
</thead>
</table>
| Carbon Trust Fund Project                  | 1. Pilot payment for REDD+ through sustainable forest management          | Gorkha, Chitwan, and Dolakha watershed areas included 105 groups within three watershed areas | • Women did not have sufficient knowledge about REDD+  
• Carbon fund allotted 15 per cent fund to women, but provided a weak basis for claiming the funds. How and where women could invest was not specified. | • Interaction and workshop programs for the representatives of groups  
• Women received credit, with minimal or no interest, for income-generating activities such as farming and tailoring; the credit was provided based on economic status of the recipient  
• Mothers’ group was formed  
• Opportunities opened for women in the community to attend meetings, listen, understand, and discuss relevant information  
• Women started planning and implementing  
• Gender-specific training and education  
• Men were given a space for working in women-led programs and were invited to attend meetings and programs organized by women  
• Daycare centre was established in 1992, which now has an endowment  
• Noteworthy: ACAP received an international award, which helped men acknowledge the importance of women’s contributions in conservation and development  
• During the ToT, facilitators explicitly called upon women to actively participate to balance the degree of participation between women and men and minimize the opportunity for men to dominate |
| Annapurna Conservation Area (ACAP), Buffer Zone, and Community Forest | 1. Eco-tourism development  
2. Sustainable development  
3. Increase participation in conservation and development | Ghandruk, Annapurna Conservation Area                                                                 | • Initial participation of women was very low because men did not consider it important  
• Men interfered in women’s decision-making process; decisions made by women were rejected by men.  
Examples:  
Men decided placement of water tap from which women fetched water  
Women had to request permission to leave home to attend meetings  
Women were generally underestimated, and their leadership was not accepted by society | • Mothers’ group was formed  
• Opportunities opened for women in the community to attend meetings, listen, understand, and discuss relevant information  
• Women started planning and implementing  
• Gender-specific training and education  
• Men were given a space for working in women-led programs and were invited to attend meetings and programs organized by women  
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• Noteworthy: ACAP received an international award, which helped men acknowledge the importance of women’s contributions in conservation and development  
• During the ToT, facilitators explicitly called upon women to actively participate to balance the degree of participation between women and men and minimize the opportunity for men to dominate |
| Training of Teachers for Indigenous People | 1. Training of trainers (ToT), indigenous peoples, and ethnic groups on climate change and REDD+ | Bajakhet, Khasru, Lamjung                                                                 | • Women, indigenous, ethnic, and pro-poor groups and Dalit had 15 per cent quota for participation. However, the information was kept secret by chair and secretary of the group. When confronted, they responded that women also belong to ethnic, indigenous, poor groups, and no distinction was necessary.  
• Men always participated, even when mandatory participation of women was mentioned in a formal letter. | • During the ToT, facilitators explicitly called upon women to actively participate to balance the degree of participation between women and men and minimize the opportunity for men to dominate |

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Contents relating to REDD+ is leading to gender-sensitive measures and paradigm shifts in the forest sector. In Tanzania the pilot projects initiated by various organizations and community networks provided a unique opportunity to exchange ideas and experiences about context-specific knowledge and practices. In the cases of Ecuador and Brazil, local experts and professionals with research skills and knowledge about environmental legislation and gender were identified as potential contributors to successful climate change program implementation, including REDD+.

It is in Acre, Brazil in particular where there has been important research on local forest conservation and payment for environmental services such as the work done by Grupo de Pesquisa e Extensão em Sistemas Agroflorestais do Acre (PESACRE) on land reform initiatives and models for forest conservation including women’s and men’s different perspectives and needs.

Women’s and environmental networks are invaluable for socializing knowledge and capacities while promoting participation. The identified links between the networks in the four countries make up multi-stakeholder platforms and privileged entry points for climate change actions. Networks play an important role in bridging national and international decision-makers and environmental platforms, such as in the cases of Nepal and Ecuador where both professional and grassroots women’s networks focus on sustainable natural resource management. In Nepal the networks HIMAWANTI and Women Leading for Change in Natural Resources (WLCN) worked with the Ministry of Environment. In the cases of Brazil and Tanzania, formal and informal networks were identified as potential platforms to build on their experience and expertise, as with Acre’s indigenous women’s network that focuses on protecting traditional knowledge and conservation practices, or Acre’s research institute PESACRE that has worked with gender issues, land reform actions, and environmental restoration. In Tanzania, informal women’s networks called Upatu, working as financial support systems within communities, were also acknowledged as potential tools to work on conservation and benefit-sharing as a REDD+ component.

General outcomes and REDD+SES process

One of the patterns observed in the four countries was that despite many efforts, gender equality is not yet a reality, and there are significant differences between women and men in the full enjoyment of their rights. Women experience gender-based discrimination in decision-making processes, benefit distribution, access and control of cash and forest products, benefit sharing, land tenure, capacity building, and access to information. Forest resources are highly important in women’s livelihoods because they provide food, energy sources, income generation, shelter, water provision, access to bio-diverse products, and traditional medicine resources. Inequitable access, control, or ownership of these assets make women more vulnerable to climate change hazards and decreases their adaptive capacity to adjust to abrupt changes such as droughts or flooding. Moreover, it has collective harmful effects by preventing the sustainable conservation of forests and therefore impeding efforts to reduce carbon emissions. In this regard, in order to achieve REDD+ objectives, project participants identified the following required actions:

- Informing women about their rights
- Respecting and complying with women’s rights
- Determining barriers and inequalities that limit women’s rights, access, and control
- Improving relations between women and men, especially in the forest sector
- Including women in decision-making structures
- Ensuring full and effective participation of women at every stage of REDD+ initiatives

A main insight about the process was that capturing the gender dimension in a REDD+ program is key to transforming gender relations in the forest sector by positively impacting
gender equality. To effectively implement gender-sensitive policies it is crucial to engage in a comprehensive process that first identifies and strengthens in-country enabling conditions; then develops an overall strategic action plan to carry out a gender-responsive process of interpretation and implementation of the policies; and finally proposes a series of local efforts and projects to implement the strategic action plan. Moreover, the research described herein revealed that the development of a gender-sensitive REDD+ process requires a step-wise method that identifies the gender considerations and obtains baseline information, and then effectively incorporates them into the program or strategy design. The main steps include:

- Conduct an analysis of gender-differentiated use, access to, and control of forest resources, and of the gender inequities that are observed in many forest-related processes (e.g., participation, transparency, distribution of benefits).
- Carry out a gender-differentiated analysis of the potential positive and negative social impacts — that is, the risks and opportunities.
- Understand the current situation of the country with regard to policies (environmental, gender, sustainable development), climate change initiatives, forestry programs, and gender equality.
- Identify gender equality and women’s rights issues that should be included in a REDD+ program, including a gap and opportunity analysis.
- Propose concrete suggestions to address gender equality and women’s rights in the REDD+ program, particularly in the safeguards and standards.

**Conclusion**

Women and men have context-specific roles as natural resource managers that contribute to climate change mitigation and adaption activities in their households, workplaces, communities, and countries. However, these tend to be overlooked by gender-blind policies and plans that can increase gender inequalities. Feminist environmental scholars have long recognized gender inequalities that cause millions of women around the world to live in societies that impose barriers to the full realization and enjoyment of their rights (cf. Agarwal 2016). If gender inequalities are not properly addressed at the beginning of and at every stage of climate change mitigation and adaptation actions and plans, then the success and sustainability of the initiative can be jeopardized. From an activist perspective, planners, policy makers, and practitioners should ensure that the entire design, implementation, and monitoring process of climate change initiatives are gender sensitive.

The case presented in this chapter is an exemplary mitigation initiative seeking to mainstream gender into climate change policy in order to achieve gender equality and resilient human settlements and communities. Important advances could be made in climate change mitigation if REDD+ program implementations introduce gender and intersectionality perspectives by taking into account men and women from different age and ethnic groups, with different living traditions and localities. This experience has proved once more that climate change actions must evaluate the country- and context-specific situations to determine which gender and other inequalities are most relevant to the process and which can be addressed (along with those which cannot). Particularly from a gender perspective, REDD+ safeguards and standards must rigorously identify, analyze, and pose solutions for empowering women and upholding international and national-level mandates for gender equality and human rights.

Empirical results from this project can be extrapolated to climate change planning that seeks to adapt and mitigate climate extremes by creating gender aware planning processes. Generating
research projects, promoting community organization initiatives, and implementing bottom-up planning methodologies that take into account localized and situated knowledges of women and men, can improve results when preventing climate change. Taking into account perspectives and needs of diverse men and women in climate change mitigation processes is an important step toward improving resilience among communities.

A critical examination of the resilience concept suggests that in order effectively to combat climate change and to achieve real sustainable adaptability, there must be gender-sensitive and gender-transformative measures and principles integrated into policies, plans, and programs at the national level (such as Climate Change National Action Plans) or city level (Climate Change City Action Plans). Most commonly, these plans seek to reduce greenhouse gas emissions, generate renewable energy, improve energy efficiency, cut transportation and land-use related emissions, and reduce emissions from waste management. Gender awareness can be mainstreamed into all these planning sectors. It would ensure that women’s knowledge, capacities, needs, and priorities are taken into account equally with men’s. It also would guarantee that budget planning and decision-making processes respond to women’s necessities and ensure gender-balanced participation. But most importantly, it would question unequal power relations based on gender roles, norms, and cultural practices that should lead to women’s empowerment and full control of tangible and intangible assets. In the case of REDD+ these assets would also include key issues such as knowledge, networks, financial means, technology, information, and capacities to strengthen women’s agency and autonomy.

Notes

1 Andrea Quesada Aguilar was the lead author who conducted the research project on REDD+SES and its related report ‘From research to action, leaf by leaf: getting gender right in REDD+SES’ (WEDO-REDD+ 2013; WEDO 2012b). Eleanor Blomstrom (WEDO) and Raja Jarrah (CARE) were supporting authors of projects mapping gender-sensitive REDD+ strategies in Ghana, Cameroon, and Uganda (WEDO 2012a, 2012b, 2012c). The research and publication were made possible thanks to the generous contributions from the Norwegian Agency for Development Cooperation (Norad), the Ford Foundation and CARE. The Climate, Community and Biodiversity Alliance (CCBA), and CARE International serve as the international secretariat of the REDD+SES Initiative, and the partners are thankful for their support during the research. The research in Brazil was conducted in the State of Acre in collaboration with the IMC of the State Government of Acre. WEDO was supported by a local research associate, who is both coordinator of the Rede Acreana de Mulheres e Homens (RAMH) and State Coordinator for Validation and Monitoring of System of Incentives for Environmental Services (SISA), as well as representatives from CARE Brazil and the CARE HIMA pilot project in Tanzania, who supported field visits and workshops.

2 Kimberlé Crenshaw (1989) describes the intersections existing between different forms of identity and discriminatory practices. The feminist intersectionality approach analyzes issues of power and various identity markers, rejecting separate essentialist categories such as class, race, or ethnicity. It analyzes how different forms of discrimination intersect and aims to explain the particular experience of different groups of women on the basis of gender, income, religion, age, race, and class simultaneously (Yuval-Davis 2007; Bastia 2014).

3 Adaptation is defined as adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. This term refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change. Mitigation refers to an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases.

4 See redd-standards.org.

5 In order to complement the entire research process and to improve recommendations, the following research questions were formulated: (a) What are the barriers to women’s full and effective participation in REDD+ governance/decision-making, and how might these barriers be (or have they been) overcome? (b) What are the potential positive and negative social impacts of REDD+ on the interests and rights of women in the country? (c) How is gender being addressed in the REDD+ national process in particular
with respect to governance and social impacts? (d) How is gender being addressed in forest-related projects in the country, in particular with respect to governance and social impacts?

6 These groups include: MJUMITA, Tanzania Forest Conservation Groups (TFCG), Tanzania Traditional Energy Development and Environment Organization (TaTEDO), and Hifadhi ya Misitu ya Asili Piloting REDD in Zanzibar through Forest Community Management (CARE HIMA).

References


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