



Forests & Gender



Forests and Gender

Edited by Lorena Aguilar, Daniel D. M. P. Shaw and Andrea Quesada-Aguilar



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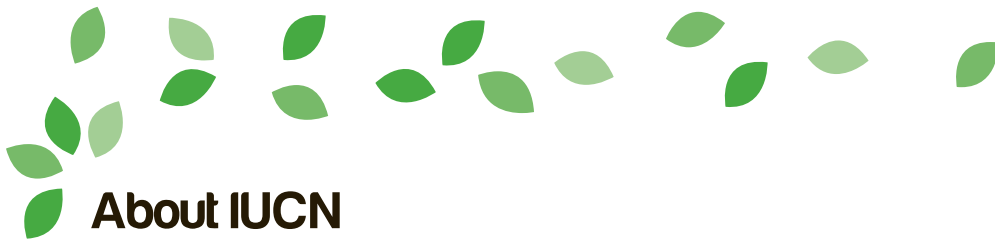
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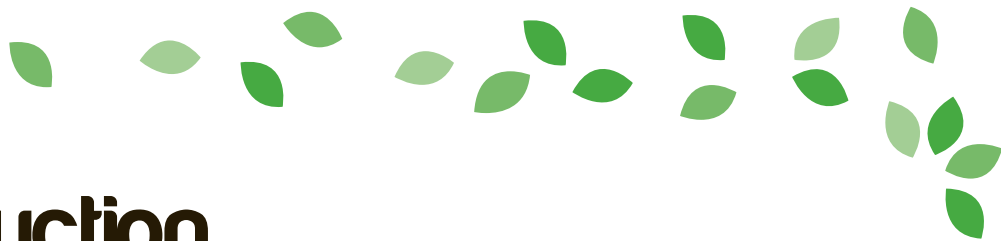
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1. Introduction

Stewart Maginnis, Lorena Aguilar and Andrea Quesada-Aguilar

After decades of neglect and marginalization, gender issues have at last found a firm foothold in many forest, land use and environmental policies. Take, for example, the United Nations (UN) climate change talks. The negotiation documents went from zero to eleven mentions of gender in Cancun last December. While the increased attention to gender is certainly good news, there is a risk that some of the newly ‘gender-aware’ institutions are motivated more by a sense of obligation than a conviction that gender matters. If this is the case, they are not only missing the point but also missing real opportunities for enhancing the effectiveness of their forest-based programmes and policies.

As anyone who has seen forest communities in action knows, there are important differences between men’s and women’s perspectives on and approaches to using forest resources for the wellbeing of their households and communities. So, taking a gender perspective in forestry has nothing to do with political correctness and everything to do with development and conservation effectiveness: an awareness of the power relations between men and women vis-à-vis forest resources can only help ensure that these resources are used sustainably and equitably. If we ignore gender, there is no doubt that we will fail in our efforts to strengthen forests’ contribution to poverty reduction, biodiversity conservation and sustainable development.

Women across the developing world are primary users of forest resources and their sale of non-timber forest products is vital to help cover household expenses and tide them through the leaner times of the year. Their heavier dependence on forests also means that women have more at stake than men when forests are degraded or forest access denied. Yet the needs and concerns of women are often neglected and the ownership of forests and the sale of valuable forest products are largely under the control of men.

This book was born out of a recent edition of IUCN’s forest magazine, *arborvitae*, which also featured a few of the chapters found here. In this publication, edited by IUCN and WEDO, we take a fresh look at some of the aforementioned issues facing gender and forests, and consider how gender is being addressed both on the ground and in policy discussions on climate change and REDD+ (Reducing Emissions from Deforestation and Forest Degradation).

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This book is divided into 3 sections. The first section explores some of the main themes currently concerning forests and gender. The second section looks at case studies from around the world, demonstrating the wealth of learning and experience that is resulting from increased awareness and integration of gender issues within forestry work. The third and final section takes a step back and examines issues and progress at the international and global levels, bringing us up to date and forecasting future challenges and developments.

By highlighting the importance of gender during this International Year of Forests, we hope to help move the debate forward and centre to give it the recognition that it deserves.



2. Interview with Wangari Maathai

Daniel Shaw

The late Wangari Maathai, Nobel Peace Laureate and founder of the Green Belt Movement (GBM), talked to Daniel Shaw in early 2011 about her views and experience on integrating gender issues in natural resource management and conservation.

Why is gender mainstreaming so important to achieving sustainable use of forest resources and forest conservation?

In the poorer parts of the world, women continue to be very dependent on forest goods and services – whether these are firewood, fodder, soil and water protection, or regulation of the climate for their agricultural activities. It is primarily the women who work with these resources and depend on them for the well-being of their families. So it is vital that women are put at the centre of whatever decisions are being made about how to manage these resources. It is increasingly evident that women living close to forests should become co-managers and co-protectors of forests, along with governments and other bodies.

Gender considerations have been at the heart of the work of the Green Belt Movement. Could you tell us a little about how gender fits within the GBM's approach?

In the GBM, which is largely in Africa and more intensively in Kenya, we know that women produce and buy most of the food for their families and communities. When we started, we went to the women because they are the people who deal with these primary natural resources. For us it was almost a natural thing to reach out to the women and ask them to participate in the restoration and protection of those resources. But what we saw over the course of the years was that it became necessary to work not only with the women but also with the broader community, with the men and the youth, because in the end dealing with the environment means dealing with the community. Within the Green Belt Movement, our focus continues to be protection, restoration and conservation, using women as the driving force—and they are really very good at it because that is what their livelihoods are about.



The late Wangari Maathai - a champion of forest and gender issues

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And have you already seen from your work that better management and governance of forests improve the lives of such people, of the world's poor men and women?

I don't think we have yet reached the point where we can really say that ordinary women, and men, are really co-managing forests—not in East Africa, in any case. We can see that the idea is being communicated and that the message is getting through, but it will still be some time before the concept is truly embraced by the communities and other stakeholders. But what we have seen taking root is what we would call agroforestry—trees on farms—and here we see an opportunity where governments can encourage people to grow trees on farms, as commercial plantations, so that part of the timber industry encroaching on forests could be encouraged to move out of the forests and buy timber from farmers. This would be a great boost to the farming communities.

What do you see as the immediate challenges looking ahead?

The immediate challenges continue to be: the rising population and a demand for resources that is growing at a much faster rate than we can replenish them; the non-prioritization by governments of environmental issues; and our continued treatment of environmental resources as if they were limitless.

Also, we have not invested enough in environmental education because we are still producing decision-makers who have no clue about environmental issues and who do not see the need to prioritize the environment. We have been advocating for environmental education to be introduced to the curriculum from primary school, especially in Africa where we depend so much on primary resources. That has not happened yet, and remains a major challenge.

Another challenge of course is climate change, which we are constantly being reminded will especially affect Africa and I really don't see a seriousness in how Africa is responding to climate change, other than rhetoric and rhetorical commitment. I don't see commitment on the ground demonstrating that we are trying to protect our forests, stop encroachment onto our forests, (especially indigenous forests), and protecting our watersheds and wetlands.

Globally, I think even though many governments are not prioritizing the environment, there is a lot of investment in renewable energies. Although the movement is very slow, I see more commitment in developed countries than in developing countries, and yet it is the developing countries that really need these technologies so as not to be left too far behind when the shift towards green energy and away from fossil fuels really happens.

Are there instances when the gender cause can be pushed too far, pushed against certain cultural norms of societies to the point beyond a comfortable balance?

Well, I think it is very important to move within the boundaries we can accommodate within our cultures, within our religions. While trying to minimize the aspects that hold women back, we also don't want to put women on a platform where they will feel uncomfortable to compete. It is difficult for women to move ahead without alienating themselves from the society to which they want to belong. They still want to get married, to have families, to be perceived well by their communities. This is the case for women around the world I think. I haven't come across a woman yet who thinks "Yes, I have arrived" in that sense. There are still a lot of challenges.

Gender advocacy has traditionally been left up to women. How can we get more men to take up the cause?

Well actually there are already a lot of men who support the cause of women at the parliamentary and local levels. In Kenya, for example, we just passed a new constitution that is extremely supportive of women and this was advocated for by many men, not only women. There are fewer and fewer men who would consciously oppose policies that support women.

Partly it is our own traditions, our poverty and attitudes, even our religion, that continue to hold women back. It is here that men play a much bigger role, because they are often the protectors and enforcers of traditions and religions. So we need to work on men, but we also need to work on ourselves, to change attitudes, continue to believe in ourselves and support each other, in order to make the kind of progress that is still needed.

There are fewer and fewer men who would consciously oppose policies that support women

Part A:

Themes in forests and gender





3. Gender in tropical forestry: realities, challenges and prospects

François F. Tiayon

This chapter examines, from a gender standpoint, the main traditional extractive activities at the heart of forestry in the tropics: the gathering of non-timber forest products (NTFPs), small-scale exploitation of timber, hunting and fishing. It shows that these activities are carried out at varying degrees by men and women, are shaped by gender specificities and constantly changing interactions. The chapter also briefly explores the constraints, opportunities and necessity of gender mainstreaming and in particular a better integration of women's perspectives in forestry projects.

Overview of women and men's extractive activities

In general, small-scale exploitation of timber, angling and net fishing, and the gathering of NTFPs used for handicrafts or for invigorating purposes are predominantly conducted by males. The gathering of firewood and consumable NTFPs, the exploitation of swampy areas, bow-net fishing of shellfish and aquatic snails emerge as women's priority areas. Despite their gender specifications, these activities all incorporate food, therapeutic, symbolic, cultural and religious dimensions and give rise to commercial exchanges. They are also marked by numerous intersections and complementarities. In the hunting sector for instance, women purchase and sell ammunition and hunting spoils. Forestry projects leading to the suspension or restriction of male hunting rights are thus likely to deprive women of income from these transactions. The gathering of NTFPs appears to be a key area of confluence for males and females and one of the most popular extractive activities, especially among women. These NTFP gathering activities cover a wide range of natural resources dominated by plant products: leaves, herbs, seeds, barks, kernels, roots, fruits, nuts, sap, mushrooms, honey, etc.

Resource management systems and rights

Traditional ecological knowledge is strong among both men and women in the tropics. This is reflected in, for example, the great variety of plant products collected and used for many different purposes, the practice of numerous agroforestry systems, and the hunting skills which are necessarily based on an in-depth knowledge of animal behaviour. However, while women own a great deal of knowledge on natural resource management, their ability to access and use these resources is often limited by their weaker resource rights. This is because the dominance of patriarchal systems and the destabilization or extinction of matriarchal societies resulting from the pressures of male values and modernity in most tropical areas lead to: 1) the masculinisation of customary land ownership in agricultural contexts; and 2) the setting up of male-controlled management systems for common pool resources.



Woman harvesting seedlings in a Tanzanian forest

© IUCN/Daniel Shaw

While women own a great deal of knowledge on natural resource management, their ability to access and use these resources is often limited by their weaker resource rights

The commoditization of natural resources further exacerbates the discrimination of women. This is shown through: the observed precedence of men's extraction rights over those of women, the male monopoly on various forms of commercial exploitation of NTFPs previously controlled by women, and the controls which men have over several points along the production marketing chain of resources primarily exploited by women and the revenue earned by women from their sales of NTFPs. The statutory tenure regimes inherited from colonization, by encouraging the overuse of resources, also contribute to the worsening of women's rights and their socio-economic vulnerability.

Prospects and challenges of integrating women's views in forestry projects

The institutionalization of gender equity and especially the inclusion of women's specificities in the current or projected practices of forestry in the tropics may help improve both the socioeconomic conditions of women and the effectiveness of natural resource management. The setting up of a set of measures in the policy and research sectors is imperative. This implies:

- Recognizing and securing women's property rights in ongoing or projected programs of tenure reform in the tropics.
- Widespread use of planning tools such as participatory mapping to better 'capture' the current dynamics of natural resources use and related gender issues.
- The generalization of the principle of gender equity at various levels of natural resource management: valorisation of local ecological knowledge in current and future forestry projects; people's representation in local, national or international forums, institutions and processes dealing with the management of natural resources; distribution of economic benefits from exploitation of common pool resources; capacity building, etc.
- The development of consensual and binding criteria and indicators for gender mainstreaming at various stages of forestry projects and setting up of this as one of the conditions to access international finance.

There are some encouraging signs of progress in these directions. Gender equality has become a major aspect of most international development policies and donors' operations since the UN Beijing conference (1995) and Convention on Women (1999). Calls are being made by advocacy groups for a comprehensive inclusion of women's perspectives in projects emerging from the REDD+ and climate change negotiations. The recommendations of the African political leaders during the African Union summit in July 2009 in Libya explicitly advocates for the formalization of women's land ownership. More promising is the large program of land reform in Ethiopia that recently allowed more than 300 women to benefit from land titling, leading to a substantial increase in their production and more investment in arboriculture (World Bank, 2010).

In conclusion, the current efforts towards improving environmental and civil governance and the expansion of feminist movements form the operational basis of gender equity in forestry. It now remains to be seen whether appropriate modalities of implementation of this reform movement are in place—complete with the development of capacity to monitor its effectiveness and/or reorient it if required—or whether we are simply running into 'gender laundry' or 'instrumentalization' of gender, rather than meaningful

mainstreaming.

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4. Women's exclusion from forestry

Jeannette Gurung

A Food and Agriculture Organization (FAO) study on gender in forestry in 10 African countries concluded that “gender inequality in forestry organizations in Africa is striking.” This is not unique to Africa, but can be generalized to forestry institutions and the profession itself, worldwide. This article will discuss possible reasons behind this phenomenon and the resulting impact on the effectiveness of forestry programmes. The near-complete neglect of gender issues and women's roles within the highly charged debates about REDD+ provides evidence that little has changed in the way that professional foresters view these concerns, despite the fact that gender equality is currently understood in the community of development practitioners as key to reaching goals for poverty alleviation and human development.

Looking at the evidence

Numerous studies have shown that women's concerns are often not the same as those of men in the community, and that unless they are specified as such, cannot be assumed to be incorporated

The importance of forests to rural livelihoods, as well as to conservation and sustainability is well recognized by members of international organizations, environment and civil society organizations engaged in the design and implementation of forestry programmes. The language of global REDD policies, for instance, refers to the need to engage “indigenous peoples and local communities”, but does not recognize the differentiated needs of women within these communities, signifying an assumption that community participation would ensure their representation – and giving a ‘gender blind’ and therefore erroneous view of reality.

Numerous studies have shown that women's concerns are often not the same as those of men in the community, and that unless they are specified as such, cannot be assumed to be incorporated. Women's issues are frequently neglected by community leaders, and women representatives are often either not afforded a seat at the decision-making table or are ill-prepared to participate effectively. At a recent conference where over US\$ 4 billion was pledged to a new REDD+ initiative, for example, not a single representative of a women's group was invited to speak, amongst 54 speakers.



A high-level meeting on forests, with very few women in evidence

© FAO/Ivo Balderi

Although there are many cases of women successfully managing community groups in forestry and agroforestry projects, women continue to be nominal stakeholders in the decision-making and planning of decentralized and local forestry programs such as those of REDD+ that will channel vast resources into forestry institutions in countries of Africa, Asia and Latin America.

This poses important questions for REDD+ experts to ponder:

1. What are the possible reasons why forestry and environment experts recognize the specific rights and roles of other groups affected by REDD+, yet deny this same recognition to women of forest-dependent communities, whose livelihoods are also so closely tied to the health and accessibility of forest resources? Why is it that many experts familiar with UN conventions to protect the rights of marginalized groups remain ignorant or disinterested in the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) – a convention ratified by 186 countries?
2. Is this due to an inherent ‘male-ness’ of the sector? Or is it because of the higher value that leaders within the forestry and environment sectors place on conservation and the restricted use of forests in relation to sustainable forest management? Or is it due to the effectiveness of other groups to organize themselves in ways that women have not been able to do, to achieve visibility to make their issues known?

Male-ness of the forestry sector

The male-ness of the formal forestry sector is mentioned in studies conducted by FAO on gender and forestry in Africa, and with the UN Economic Commission for Europe on women in the forestry workforce in Europe. These state that forestry is widely identified with men, and that the design of policies and management of formal forestry is almost always male-dominated. During the past ten years, some improvements have been made, but these have been largely imperceptible. An extreme paucity of data makes it impossible to show trends over time or to show the current level of women's participation in the sector. In many countries, reliable statistics on the demographics of the forestry workforce are difficult to obtain, and when it concerns women's participation, data are virtually non-existent. The lack of statistical data on the role of women in forestry is a handicap in policy planning and formulation, leading to the under-valuation and under-reporting of women's contributions.

Social ideas of specific masculine or feminine qualities are connected to certain roles, positions, tasks and professions. The perception of what is 'appropriate' for men and women forms the basis for the distribution of work, the design and evaluation of different tasks, and the criteria for promotions. Forestry is not an exception to this since it has been generally regarded as an arena mainly for men's work, business and governance. Within organizations, households, companies and departments, a gendered organizational logic is at work, which not only reproduces a structure of gender division but also, paradoxically, makes gender invisible.

This vision of reality is influenced by socio-cultural norms and religious conceptions strongly driven by concepts of patriarchy that cut across ethnicities, castes, livelihoods, rural and urban communities, and the educated and the non-educated populace. As a result, men are generally favoured for forests, land, water and other productive resources and women are often excluded from possession and control of land, and from access to decision-making realms, reinforcing the notion of their vulnerability and dependence on men. Gender issues and concerns are then trivialized in key policy decisions and negotiations in both the formal and informal forestry sectors.

The current state of affairs differs significantly from an approach that recognizes rights afforded by international conventions that recognize the roles and rights of women, who are the largest group of forest users, and who are at greatest risk of losing rights to forest resources or not receiving their fair share of compensation for forest protection activities under REDD+ initiatives.

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Conservation values for biodiversity

Insofar as foresters and environmental experts support a conservation approach that restricts forest management to minimal human activity, women who rely on forests for livelihood use will be unwelcome actors in biodiversity initiatives. In contrast, the dominant conceptual frame of environmentalists that views Indigenous Peoples as living in harmony with nature may support their demands for rights and engagement in the design of REDD+ within protected areas, for example, while disallowing other community members who may be viewed as exploiters. Yet as most of the world's biodiversity inhabits fragmented landscape mosaics outside protected areas, women and other community members who manage and use forests for a range of land-uses must be considered as primary stakeholders. To integrate sustainable use and conservation in such landscapes necessitates an understanding of the complex and gendered linkages between livelihoods, poverty, sustainability, and conservation.

REDD+ activities are increasing expectations that international mechanisms will provide financial incentives for conserving and afforesting/reforesting landscapes, while simultaneously benefiting forest-dependent communities. Now is the time for the forestry and environment community to recognize that women are primary stakeholders of forest management schemes, and that actions to strengthen women's positions and bring them into the discussions and decisions are critical to enabling them to better conserve forests, trees and land.



Women's participation in forestry projects is often limited to activities such as tending tree nurseries, rather than involvement in decision-making

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5. Making a difference in gender and forestry: a special issue of the Scandinavian Journal of Forest Research

Maureen G. Reed and Gun Lidestav

Since the United Nations Women's Conference in Beijing in 1995, there have been many activities and reports that seek to implement gender mainstreaming in all major policy and decision-making processes. Those activities carried out by the international forestry community include two international conferences on Gender and Forestry held at the Swedish University of Agricultural Sciences in Umeå Sweden, in 2006 (Lidestav and Holmgren, 2007) and then in 2009. In 2010, the Scandinavian Journal of Forest Research published a supplementary edition composed of papers presented at the Second Conference on Gender and Forestry (2009) entitled, "Making a Difference in Theory and Practice".



Participants at the gender and forestry conference, 2009

© Patrick Umaerus

The papers illustrate a range of voices and approaches found in applied gender studies of forest management. They document gender issues from many different countries (including Canada, Germany, India, Kenya, Nepal, Sweden and Thailand). Together, they redress a longstanding misperception that ‘gender and forestry’ is a topic that is relevant primarily to developing countries. The papers describe forestry undertaken across a mix of property regimes from landless peasants to public land arrangements. They describe situations where forests are used to generate different kinds of benefits (wages, non-timber forest products, timber and income). They also describe a range of decision-making venues including private households, local communities, and state policy situations where gender-based assumptions and practices are prevalent and taken for granted.

Concerns coincide across a range of situations. For example, experiences documented separately by contributors from Sweden and Nepal illustrate how the absence of men in a household alters the kinds of decisions made about forestry both within the household and across forestry practice more generally. Cases from Canada, India, Kenya, Nepal, Sweden, and Thailand demonstrate that the conditions under which women are represented in community-based forestry or forestry decision-making often restrict women’s participation and constrain the kinds of decisions that are made. The papers reinforce the longstanding recognition that gender remains a significant axis of social difference in both industrialized and developing countries. However, the papers also discuss other sources of social disadvantage. Papers from Canada and India describe intersecting concerns related to race/ethnicity and class/caste respectively. Thus, forestry management requires serious examination and reflection on these ingrained cultural assumptions and practices.

The collection as a whole suggests that research in gender and forestry remains a strongly applied field. Research must acknowledge differences among women, while seeking to unite their diverse experiences to advance a practical agenda for change. Renewed research efforts require new methods and research approaches, new ways of conceiving research, new mechanisms for granting agencies, and even changes in how academic and trade journals conceive and implement their editorial policies. Of course, we also seek research that stimulates changes to government, community, and industry policies and practices. There are many routes to this change. We hope that reading the Supplemental Issue of the Scandinavian Journal of Forest Research (Fall 2010) will continue to help stimulate debate and advance an agenda for making a difference.

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6. Gender and REDD+: taking note of past failures

Irmeli Mustalahti

There has been growing interest in Reducing Emissions from Deforestation and Forest Degradation (REDD) and an agreement on “REDD+”, which includes natural forest, protected areas and forests under community based management. Current REDD+ modalities are intended to provide a range of-benefits:

1. Social benefits associated with pro-poor development.
2. Protection of human rights and improvement in forest governance.
3. Environmental benefits, particularly enhanced biodiversity protection and soil and water quality and availability (Seymour, 2008).

However, these expected environmental, economic and social benefits have yet to be proven and the likely impacts of REDD+ are still a matter of debate (Chhatre and Agarwal, 2009). For example, the importance of taking into account gender issues in the formulation of REDD+ modalities has only recently been noted. Climate change has different effects on the lives of men and women because of existing gender differences and roles (Aguilar, 2009). The key question we address here is: how can REDD+ modalities be designed to take account of women as well as men, as active stakeholders and decision-makers.

In developing countries, climate change is expected to have a major impact on the lives of rural women, as they are the primary users of natural resources for family subsistence in terms of water, firewood, non-timber forest products (NTFPs) and food crops. An ongoing action research project in southeast Tanzania seeks to identify the gender-related differences of livelihood diversification through participatory forest management (PFM), as a means of identifying options to reduce vulnerability to climate variability. The study area centres on the Angai Villages Land Forest Reserve (AVLFR), which is situated in Liwale District and is owned and managed by the thirteen villages surrounding it. The AVLFR was included as one of Tanzania’s national demonstration sites for carbon monitoring, as a preparatory measure for participation in the REDD mechanism. Studies have shown that there are high carbon stocks in AVLFR and, because of that, AVLFR has potential as a community REDD+ project in the future (Mukama, 2010; Mukama,

In developing countries, climate change is expected to have a major impact on the lives of rural women, as they are the primary users of natural resources for family subsistence

et al., 2011). The villages have grown over the years and the District Council wants to divide the original 13 villages into 24 villages. However, the formal boundary process and land use planning need to be carried out again in the new 24 villages before they have legal rights to benefits from forest resources.

Local reality: “We cannot live without water”

During the participatory exercises, interviews and village meetings, water was cited as the number one challenge for most of the AVLFR communities. In Kiangara village for example, an old woman stood up during a community meeting to tell how life used to be in the village when she was young: she admitted that it was not easy as they did not have a school, a village office or a health care centre—but they did have water. It was not always clean but they got water throughout the year from streams close to the village. “We cannot live without water,” the woman said.



Villagers report the drying up of water sources due to loss in forest cover

© Leena Akatama

On one side of the village, most valuable trees had been cut down and sold in both legal and illegal logging operations. Due to the loss in forest cover, water resources were drying up. Currently, there is one freshwater source that is close to the village centre which some families use, but it does not have enough water during the dry season and women have to come to the source at night and stay there until late the next afternoon in order to collect enough water in their containers.

Along the main road there are several pump wells that people use every day but these are not considered reliable because they often have technical problems and the water in most of the wells is salty. The women of the village must walk up to 15 kilometres twice a day to collect water: the most important community water sources, Mihumo River and Litou cultural site, are about 8 km away from the village and are also drying up. According to the women, the rainy season is not only getting shorter but often starts later, which exacerbates farming problems and makes food shortages worse. It

seemed that the long time women spend on water management chores keeps them away from their families and from their agricultural activities. This is putting pressure on the family unity and disrupting their subsistence farming.

Gender in REDD+: why it matters

In the case of AVLFR, REDD+ could not only enhance the forest carbon stocks but could also contribute to sustainable management of the area's water resources, which together would deliver significant social and environmental benefits. In Tanzania, two main funding options related to REDD+ modalities are being discussed: 1) effort-based payments that reward communities for improved forest management; and 2) output-based payments that are based on empirically verified performance in terms of improved forest conditions and reduced deforestation (TFWG, 2010). The effort-based approach would allow communities to be rewarded equally in areas as AVLFR, where the 13 villages are very different in terms of their forest resources and land-use. However, the key issue in both these payment options is how the funds are channelled to communities and who decides how the funds are to be used by the communities.

Gender issues need to be incorporated into the discussions and documents related to REDD+ payments and benefit sharing models, both in the Tanzanian National REDD+ Strategy and the global REDD+ model. There are important links between gender and forest management: rural women tend to use the forest to support their families whereas men see forests more in terms of their commercial value and their potential for income generation from timber and NTFPs. It is only natural then that in the AVLFR village meetings women are discussing water problems, whereas men are talking about the price of timber and how the timber revenue could improve their livelihoods. This role differentiation is part of what make REDD+ such a complicated policy to implement. It is very clear that those involved in forest harvesting and getting direct income from logging operations are not ready to protect the forest, while women are poorly represented in decision-making.

Taking note of past failures

Since 2009, our research team has organized village meetings, focus group discussions, participatory carbon monitoring and land use planning training in the AVLFR area. This work is an important opportunity to learn how REDD+ mechanisms could be integrated into improved forest management for poverty reduction and forest conservation as well as into local and global efforts on climate change adaptation and mitigation. A key challenge in Tanzania is the high level of dependency on forests and their ecosystem

services as sources of energy, new farming land, construction materials, edible plants and other forest products. In our case study area, agriculture for food and income is considered vital, but forest fires mainly caused by shifting cultivation and hunting with fire constitute a great threat to the sustainable way of living and consumption of water resources.

Solving these kinds of contradictions and conflicts requires not only planning but also financial and human resources for the implementation and enforcement of the plans. Women's participation will be key for the implementation of the new models for natural resource management. The challenge will be to enable women to become involved in decision-making and governance – not only because of traditional differences in gender roles but also because of the growing workload and livelihood changes that are mainly affecting women. For example, the REDD+ mechanisms will bring in new ways to manage the land, prevent forest fires and utilise natural resources, and this will directly change women's livelihoods.

There is a growing need to assess the strengths and the weaknesses of the global REDD+ model. It is important to take note of past failures to involve women in natural resource governance and to find effective ways to integrate women into decision-making and planning processes related to land-use and natural resource management.

REDD+ mechanisms will bring in new ways to manage the land, prevent forest fires and utilise natural resources, and this will directly change women's livelihoods

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7. Women in REDD+

Jan Willem den Besten

REDD+ is a policy mechanism proposed under the United Nations Framework Convention on Climate Change (UNFCCC), aimed at reducing emissions from deforestation and forest degradation and recognizing the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. It is an ambitious plan that requires a turnaround in the way forests are being managed. REDD+ is included in the Cancun Agreements but a legally binding agreement is yet to be negotiated. Depending on the way REDD+ activities are defined and implemented, REDD+ could have positive but also potentially negative implications for those communities that depend on forests for their livelihoods. Women could be particularly affected.

Women across the developing world are both the primary users of forest resources and the main producers of food from agriculture. Although women perform crucial roles in the conservation and management of forests, their contributions are often not recognized in customary tenure and land rights arrangements, nor do they take equal part in official decision-making processes. In most cases their role is not even acknowledged, let alone understood. A gender-sensitive approach for REDD+ starts with an increased understanding of the unique role that women play in the management of forest resources. Second, while their equal participation in formal and informal consultations has to be promoted and advanced, there is an urgent need to strengthen their capacity to negotiate and participate in decision-making.

IUCN aims to contribute to more clarity on REDD+ gender issues and promote the role of women as part of the implementation of pro-poor national frameworks for REDD+. IUCN's pro-poor REDD+ project (operating in Cameroon, Ghana, Guatemala and Indonesia, and proposed for Uganda) includes studies into gender dynamics of livelihoods and their dependence on forest resources. A poverty toolkit is being applied to understand how men and women depend on cash and non-cash income from forest resources and agriculture. A study of villages in Papua Province in Indonesia for example revealed that in some villages, an increase in trees planted on farmland that provide cash crops, could predominantly benefit the income of men. Women on the other hand depend on non-cash income from agriculture and could be forced to clear more land. In the forest-rich western regions of Ghana, the study revealed that

A gender-sensitive approach for REDD+ starts with an increased understanding of the unique role that women play in the management of forest resources

women derive a third of their income from forest resources; for women living closer to forests almost all this income is non-cash, while for those living closer to the main road and market town, more of the income from forest produce is earned in cash. This is important information if any REDD+ activity will imply restrictions on access to forests or if compensation has to be calculated.

Building on the insights gained into the role of women in forest-based livelihoods and forest governance structures, the project supports the inclusion of women in multi-stakeholder processes and hopes that attention to their interests in national REDD+ strategies will translate into concrete actions. Special attention is required to ensure appropriate representation of women in formal REDD+ forums and steering committees. IUCN also works with local partners to build women's capacity to negotiate and access information.

Finally, IUCN is working to translate insights developed as part of this project into recommendations and to feed these into climate negotiations at the international level. Much work remains to be done to truly mainstream gender issues in REDD+. It simply is not enough to focus on increased participation of indigenous peoples and other local stakeholder groups—specific attention needs to be given to the potential impacts of REDD+ on women, and measures to ensure that the needs of women forest users are addressed.

An indigenous family in Papua Province, Indonesia, where IUCN's pro-poor REDD project is being implemented

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Andrew Ingles





8. All in one bucket?

Combining mitigation and adaptation for women's empowerment

Rebecca Pearl-Martinez and Annaka Peterson Carvalho

There is growing interest in the potential synergies of combining climate mitigation and adaptation activities in the field. Benefits can include stretching limited resources, ensuring that mitigation efforts do not have a negative impact on the adaptation needs of women, generating political will and encouraging coordination across government departments, and providing a common platform for measurement methodologies such as carbon accounting and gender indices. Such joint mitigation-adaption efforts require a more coordinated approach as they often involve different arms of government. Women's ministries, in particular, will need to be strengthened to enable them to engage more fully on climate change and to help ensure that the activities undertaken respond to the specific impacts on and roles of women.

Below are two examples of initiatives that combine mitigation and adaptation benefits and place women's empowerment squarely at the centre.

One of the best examples of a project with both mitigation and adaptation benefits is one that has trained over 10,000 women in Guatemala, El Salvador, Mexico, Honduras, and Nicaragua in harvesting Maya nuts from the forest for food and income. Over 40 years, each Maya nut tree sequesters over one ton of carbon dioxide and provides other ecosystem services such as soil, water, and biodiversity protection, flood mitigation, and ecosystem resilience to climate change. More than 800,000 new trees have been planted by communities and 60 local partner organizations. Women involved in this program earn income, learn new methods to ensure their family's food security and nutrition, have access to traditional medicines, and have an added incentive to protect existing forest.

Women's ministries will need to be strengthened to enable them to engage more fully on climate change

The System of Rice Intensification (SRI) has innate contributions to both adaptation and mitigation in Cambodia and Vietnam, where changing weather means greater risk and uncertainty for farmers. Women in Cambodia and Vietnam are the primary food producers, as well as being responsible for the well-being of their families. SRI is a package of agricultural practices that can be used by farmers to boost yields of hand-planted rice without significantly increasing inputs such as fertilizer or pesticides. SRI plants are stronger, healthier, and have deeper root systems, which allows them to draw on more moisture and nutrients in the soil and enables the plants to tolerate climatic stresses. Some of the mitigating effects include: (1) reduced standing water, leading to decreased methane and nitrogen emissions; (2) reduced fertilizer use, leading to decreased carbon and nitrogen emissions from manufacturing; and (3) sustainable increases in the productivity of existing land, preventing the conversion of carbon sequestering forests to agricultural uses. By adopting methods like SRI, women farmers have been able to improve their own lives and, at the same time, have the potential to help reduce greenhouse gas emissions.

These initiatives are at the forefront of a growing trend to tie mitigation and adaptation together, with the intention of creating more robust and synergistic benefits. Time will tell if such projects deliver lasting benefits for gender equality¹.

Vietnamese farmer Hoang Kim Vuong at her SRI farm in Yen Bai province

© Chau Doan



¹For more information about these two cases, see www.theequilibriumfund.org and www.oxfamamerica.org/articles/yem-neang-spreads-the-word-in-a-new-way-to-grow-rice



9. Gender and water resource management

Kathelyn Paredes Villanueva

Gender issues are at the heart of water resource management in many developing countries (Solórzano et al., 2009). The research described here analyses gender roles in water resource use within the Rio Grande basin of Comarapa Municipality, Bolivia.

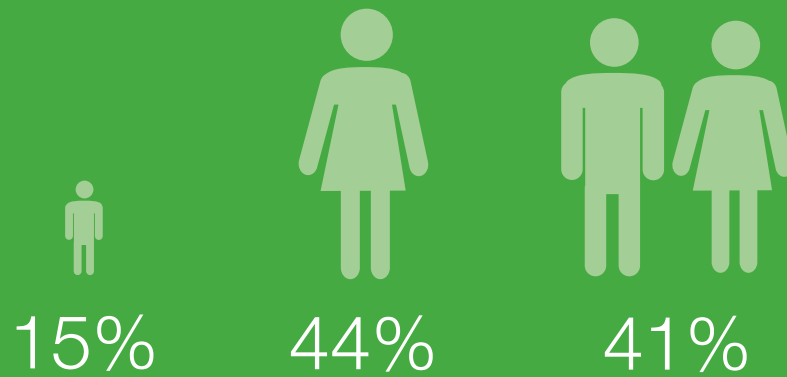


In Comarapa Municipality, Bolivia, agriculture is the men's main activity and household tasks is that of the women

© Kathelyn Paredes

According to the results of the interviews conducted during this study, agriculture is the main activity undertaken by men (who account for 38.6% of responsibility in this area of work), while household tasks are the principal activity of women (who account for 33.3% of responsibility for this work). Decision-making about a family's water use is also clearly a gender-relevant responsibility (as shown in Figure 1). It is the women who decide how water is used and solve any water use problems such as shortages, as they have to deal with the transportation of water from the nearest source to the family home. It should be noted that men and children also help with tasks related to water use.

Figure 1 - Percentages of responsibility for decisions on water use at a family level



However, when it comes to decision-making on water use at a community or regional level, it is a different picture. Generally, most positions on water-use committees or organizations are held by men rather than women. Women's participation in these organizations tends to be limited to standing in for their husbands if they cannot attend. Lawrence and Eid (2000) note that women's points of view can be easily ignored as they are often accustomed to letting men take decisions and may feel wary about making mistakes when expressing their views. Also, according to my interviews, training for participation in decision-making mostly focuses on mixed groups (where women have little opportunity to participate) and uses the same strategies for both genders, with little regard for the particular challenges faced by women. Women's ability to participate is determined, at least in part, by their level of education and their many responsibilities within the home. It is necessary therefore to find appropriate means to help men and women negotiate between themselves in these sorts of situations "beyond providing women with unconditional support for themselves to fight for their rights" (Umaña, 2000).

Women's ability to participate is determined, at least in part, by their level of education and their many responsibilities within the home

The results of this study suggest that efforts to improve gender equality in decision-making on water use (and indeed more generally) would need to go further than simply paying more attention to women's needs. The needs of men and children need to be taken into account, as do the relationships between different household and community members and the roles of environmental and cultural factors.

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Part B:

Country case studies



10. Gender sensitive agroforestry and agribusiness in Tanzania

Teija Reyes

A woman weaving a mat of palm leaves near her home garden, Tanzania

© Teija Reyes



Studies from Sub-Saharan Africa (SSA) have shown that improving the economic situation of women will have a direct and positive impact on the livelihoods of the whole family. Men generally earn more but do not distribute their incomes evenly among all family members (Manuh, 1998). The sad truth is that development does not necessarily provide equality of benefits, and women are one of the groups most susceptible to being left out. In rural areas of SSA, 95% of external resources and technical assistance (e.g. improved seeds and tools) have been channelled to men, although women are responsible for 80% of agricultural work, and their labour inputs—particularly in food production—normally exceed those of men by 12-13 hours a week (Manuh,

1998). The social exclusion of women from the economic benefits and technical know-how delivered by development gains has kept women in poverty traps.

Since 2001, women in Tanzania have had the legal right to own land regardless of customary and religious restrictions. This legislation would certainly help to empower women to improve their lives, if only they were informed about these laws and facilitated to use their rights. Widowed and divorced women can still remain landless according to customary laws, which run counter to national laws (De Weerd, 2010).

This legislation would certainly help to empower women to improve their lives, if only they were informed about these laws and facilitated to use their rights

Women are the primary users of many forest products, such as fuel wood, wild foods and fodder. These non-timber forest products are extremely important for women, who spend several hours a day collecting them from the forest. In general, women are more aware of—and vulnerable to—environmental degradation than their male counterparts, and are well motivated to work on conservation activities even when not paid to do so (Fortmann and Rocheleau, 1985).

Studies in SSA indicate that agricultural productivity would increase by more than 20% if the gap in capital and inputs between men and women could be reduced (Quisumbing, 2003). This will require focusing on those agricultural and forestry resources most important to women and over which women have some degree of control (Fortmann and Rocheleau, 1985). It will also require more female extension workers, foresters and agricultural advisers.

Agroforestry is an old land-use method by which trees and agricultural crops are grown together on the same piece of land. Agroforestry can play a role in fighting climate change and can help maintain high biodiversity as long as it does not involve the clearing of natural forests but rather replaces monocultures, unproductive cultivations and abandoned land. The intensification and diversification of agroforestry practices can also strengthen the socio-economic resilience of rural populations to climate change.



Women holding a meeting in a village, Tanzania

© Teija Reyes

Tanzania has chosen to boost agroforestry technologies to help mitigate and adapt to climate change, improve land degradation, maintain biological diversity and help in conserving natural forests (Kitalyi *et al.*, 2010). However, it is not always easily adopted by farmers. Gladwin *et al.* (2010), found that in Malawi and Kenya, even if farmers have a reason to plant improved fallow and have seen the benefits that agroforestry can provide, they still need to have the relevant know-how, time and health to practice it, as well as having access to seeds and seedlings, and available land. Women will face even more limitations, given they face significantly more challenges in accessing these necessary elements (De Weerd, 2010).

Agroforestry is more gender sensitive as the cultivation is normally situated close to home and can grow many of the items that women would otherwise need to spend a good deal of time collecting in the forest. Women's subsistence-oriented home gardens should be gradually changed to produce additional products such as high-value cash crops, as land is getting scarcer. This could be implemented by using intensive well-managed multilayer agroforestry. Women could be empowered to be a part of sustainable, export-oriented agribusiness based on, for example, spices, as they are small in volume but high in value and can be grown in agroforestry. That would increase the women's income levels and benefit the whole community.

It is time to recognize women as important economic actors in agriculture and forestry, and to acknowledge the important role women play in improving livelihoods in rural Tanzania.

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11. Women and woodlots in Tanzania

Richard Munang, Bubu Jallow and Johnson Nkem

Tanzania is one of eleven countries participating in the CC DARE (Climate Change and Development: Adapting by Reducing Vulnerability) Programme, jointly implemented by UNEP and UNDP using funds from the Ministry of Foreign Affairs of Denmark. The programme has sought to minimize the climate change risks to development efforts and empower disadvantaged men and women, and has removed barriers impeding the integration of climate change adaptation into development planning and decision-making structures. One of the projects implemented was a study in the Makete district of Tanzania, on woodlot management as an adaptation measure and a means of improving smallholder livelihoods. The study assessed the management practices of smallholder woodlots and the marketing of timber, with special attention to gender roles and land tenure rights. A multistage sampling design was used: four wards with many smallholder woodlots were selected and in each ward, three villages and 10 households in each village were sampled, making a total of 120 households interviewed in the study.

Gender in woodlot management

The selling of woodlot timber is done by the head of the household (generally the father). The mother and children (sometimes as young as 10 years old) are involved only in carrying raw timber by head to the roadside for transportation to marketing points. Male children are considered to have more rights than their female siblings in 80% of households.

Male children are considered to have more rights than their female siblings in 80% of households

Improving woodlot management practices

This research helped strengthen farmers' confidence in how they could manage and market their woodlots in a way that could greatly improve their livelihoods. The findings also enabled the programme to package woodlot management best practices into a set of guidelines. This was carefully done by involving men, women, boys and girls and empowering them with information on tree species selection, source of planting material, land preparation, field planting and spacing, woodlot tending activities

(weeding thinning, pruning), suitable harvesting time, and marketing channels for timber. The development of these guidelines utilized both the local knowledge of farmers and technical recommendations from forest staff and Makete District Council. Involving both women and men in the development and dissemination of the guidelines helped mainstream gender in woodlot management, as women as well as men were able to broaden their silvicultural knowledge and sustainable resource management practices.

Conclusion

The best practice guidelines provided tools to empower disadvantaged women and girls in woodland management and timber marketing. The project which lasted about six months was a test case and showed that significant impact can be achieved with only minimal investment. Indeed, it generated a good deal of interest at the national level and helped mobilize the national government, civil society organizations and other stakeholders to provide the type of enabling environment required for scaling up the programme's approach¹.



Schoolgirls in
Makete District,
Tanzania

© Josiah Katani

¹ The views expressed in this document do not necessarily reflect the views or policies of UNEP or UNDP, the implementing agencies, or the Ministry of Foreign Affairs of Denmark that provided funds for the CC DARE programme.



12. Mainstreaming gender into community forestry in eastern Cameroon

Nyapeye Aurelie Yatchou

Cameroon's 1994 forestry law includes provisions for the involvement of rural communities in forest management by transferring the management of 'non-permanent' forest areas (up to a maximum of 5,000 hectares) to communities as a mechanism for poverty alleviation through sustainable forest management. Under the "Community Forestry to Fight against Poverty (FCCP)" project which began in 2006, the NGO Catholic Relief Services in collaboration with the Batouri Diocese developed and implemented a gender mainstreaming strategy to allow women and youth to have a voice in forest management.

The key objectives of the project's gender mainstreaming strategy were to:

- Recognize that men and women have different knowledge and uses of the forest that should inform the community forestry process.
- Ensure that women and youth participate in the community education sessions on forestry legislation and the community forestry process by sending out meeting invitations for women and men separately, asking each man to attend the meeting with his wife and children, explaining to the community the basis of community forestry in French and local languages.
- Plan community forestry activities such as awareness meeting, boundary setting, and forest resource inventory etc., around the agricultural calendar of women.
- Ensure women hold leadership positions within the management committees and are actively engaged in the implementation of forest management plans.



Women's group visualizing their landscape, Cameroon

© IUCN/Intu Boedhihartono

Gender mainstreaming has ensured the participation of the entire community in the forest management process. As a result, financial resources derived from the forest have been directed towards projects such as the construction of a well, a health centre, a multipurpose community hall, and the purchase of an electricity generator. At the same time, cultural biases towards women have begun to change since the FCCP was implemented. According to female members of the community, women now have the right to sit with men and discuss village development issues with them, and women are also involved in the implementation of community projects. The women attributed these changes to the impact of the project activities. Three-quarters of men reported that women play a vital role in the management of financial resources derived from forest exploitation. This in turn has contributed to an increased status of women as respected and valued community members.

Cultural biases towards women have begun to change since the FCCP was implemented



13. Gendered knowledge and uses of the shea tree, Burkina Faso

Marlène Elias

The shea tree (*Vitellaria paradoxa*) is indigenous to Africa's Sudano-Sahelian region and crucial to savannah ecosystems and peoples. Due to its myriad nutritional, economic, cultural, medicinal, and ecological benefits, the species has long warranted the protection of agriculturalists, who take care to conserve this tree when they clear fields for cropping. Because of their different uses of the shea tree, local men and women have developed distinct and overlapping areas of knowledge of the species' characteristics and ecology, based on long-term observations and experience. In particular, African women who collect, market and process shea nuts into a multipurpose butter, have a close connection with the species and this knowledge needs to be recognized.

Women in Burkina Faso who collect, market and process shea nuts have a close connection with the species

© Marlène Elias



Gender roles are highly differentiated in rural West Africa, where gender is a key factor in determining access to and use of natural resources (Norem, et al., 1989; Fortmann, 1996; Rocheleau, et al., 1996). Accordingly, “examining gender helps us to understand how other forms of social difference influence rural environmental management, not just as a ‘proxy’, but because other differences such as age, wealth or origins operate in gender-differentiated ways” (Leach, 1994). Yet, despite the association between women and the shea tree, the respective roles that women and men play in shea agroforestry have tended to be overlooked.

Fieldwork conducted among Mosse and Gurunsi agriculturalists in Burkina Faso’s province of Sissili in 2006-2007 reveals that this is a grave omission as gendered indigenous knowledge systems mediate the management and conservation of shea trees (Elias, 2010). Traditional shea tree management centres on the selection of individuals with prized characteristics and the removal of undesirable specimens, resulting in highly managed woodlands. The creation of appropriate woodland conservation programmes thus critically depends on recognizing the gender-specific ways in which local people relate to and manage this species.



Shea
parklands,
Burkina Faso

© Marlène Elias

In the aforementioned study, male and female interviewees recognized common environmental factors influencing the productivity of shea trees, including climatic, biological and anthropogenic factors such as bush fires and felling of neighbouring trees. They further listed the same tree characteristics influencing yields, such as the tree's flowering and leaf shedding behaviour, susceptibility to parasites, and size. The benefits the shea tree offers to women and men, who both engage in everyday interactions with the species, as well as the sharing of ecological knowledge within the household, likely explain this convergence in their knowledge.

Respondents of both genders also cited comparable use-preferences for the shea tree, yet they ranked these in a different order of importance. Male participants emphasized the importance of shea fruit, which is consumed as an essential dietary supplement during the lean ('hungry') season, and mentioned a handful of medicinal uses for the tree. Aside from the species' value in providing shea nuts for making butter, women provided an extensive list of medicinal cures produced with different parts of the tree. These cures are used in the local treatment of diarrhoea, malaria, boils, eye infections, coughs, and more. Women's knowledge of the tree's medicinal properties was far more detailed than that of their male counterparts. This is likely due to the fact that it is the women who prepare and administer the cures to their families. Female interviewees also stressed the utility of shea wood for making fires and of shea nut by-products in household soap production. In turn, male spouses placed greater emphasis on the trees's ecological functions.

When asked about ways of preserving and/or enhancing shea yields, men focused on tasks such as weeding and collecting organic matter under shea trees to protect them from burning, removing semi-parasitic plant parasites (*Tapinanthus spp.*) from the tree, and pruning. In contrast, women emphasized the importance of cultivating beneath the tree canopy and creating optimal spacing conditions between shea specimens.

Finally, men and women cited similar factors influencing shea tree selection in cultivated fields, with high yields, shading effects and spacing ranking at the top of the list. The question thus arose as to whether spouses select shea trees together in cooperatively-cultivated household fields or whether the process is led by the (generally male) head of the household. Previous research in West Africa has suggested that although men are the visible managers of arboreal resources in cultivated fields, carrying out field burning and tree cutting (Maranz and Wiesman, 2003; Chalfin, 2004), female knowledge may play a role in guiding the management process (Carney and Elias, 2006). This is particularly plausible in the case of a tree resource such as shea, which is closely associated with the female sphere of activities.

Despite the association between women and the shea tree, the respective roles that women and men play in shea agroforestry have tended to be overlooked.

Indeed, half of female interviewees explained that they and their husbands discuss which shea specimens to conserve in cooperatively-cultivated household fields, since women are attentive to the most productive trees. Although the male spouse ultimately chooses which specimens to remove, women provide input to guide their decisions. In turn, nearly three-quarters of male participants maintained that they consult their wives before removing shea specimens in the household's cooperatively-cultivated fields. They felt that women are more knowledgeable about the trees with the highest yields or those providing the best quality nuts. These respondents therefore inform their wives of the shea trees they intend to fell to verify the soundness of their choice. Others request their wives' input upfront, to guide their decisions. These testimonies suggest that both male and female agriculturalists play important roles in managing shea woodlands.

Woodland conservation programs are being widely implemented throughout the shea belt, as shea has been included on the Food and Agriculture Organization's (FAO) priority list of African forest genetic resources (Lovett and Haq, 2000). These programs, as well as studies on shea, must solicit the cooperation of local male and female farmers. Gendered indigenous ecological knowledge and opinions can provide critical guidance in the creation of culturally sensitive and rational arboreal management programs. Moreover, partnerships between researchers, extension agents, and agriculturalists may prove invaluable for improving desirable shea characteristics, ensuring the species' regeneration. Findings from the shea case reveal the importance of developing gender-sensitive agroforestry policies and programmes, attuned to the different areas of expertise and needs of female and male agriculturalists.

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14. Gender and forest biodiversity: a case study from Ghana

Edward Amankwah

Ghana's forest cover has shrunk from 8.2 million to 1.8 million hectares in less than a century. Most of this forest loss took place in the last 20 years. The Forestry Commission reports that some forest reserves in certain parts of the country have lost over 98% of their forest cover within this time period. Ghana's population has been increasing at 2-3% per annum over the last two decades and is estimated to exceed 26 million by 2015). As the country's population increases, so does pressure on its forest areas, which are threatened by conversion for other uses (agriculture, settlements, industrial development, etc.).

Illegal logging is one of the main causes of deforestation and forest degradation. According to Hansen and Treue (2008), Ghana's deforestation rate is estimated to be approximately 65,000 ha per year.

The role of women in the effective management of natural resources in Africa and most particularly in Ghana is well noted. It is the view of Ardayio-Schandorf and Wrigley (2001) that women have a strong traditional and contemporary knowledge of their environment. In the rural areas women perform the bulk of household subsistence work and are largely responsible for farming, food provision, healthcare and the management of natural resources.

The Food and Agriculture Organization (FAO) estimates that the forestry sector directly employs 43,000 people and provides livelihoods for over 2 million people countrywide (FAO, 2011). More broadly speaking, forest and forest products are the main source of livelihood for about 70% of Ghanaians (GPRS, 2008). In addition to providing fuel wood, bush meat, medicinal plants and other natural products, forests contribute significantly to the welfare of most Ghanaians, based on various agricultural, economic and socio-cultural activities.

Forest and forest products are the main source of livelihood for about 70% of Ghanaians

A gender study was carried out in the Atewa Range Forest Reserve (ARFR) in the Eastern region of Ghana, in order to:

Cocoa plant,
Ghana

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Boedhihartono



1. Assess the role of gender to the sustainable management forestry in the ARFR;
2. Analyse the impact of gender mainstreaming on the biodiversity in the ARFR; and
3. Offer any policy changes on forestry and biodiversity with special reference to gender.

The study used a multi-stage sampling procedure to explore the relationship between gender, protected areas and livelihoods in the ARFR. The study found that while non-timber forest products have been well-utilised by both men and women, illegal logging is very much the domain of men.

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15. Gender mainstreaming, tenure reform and sustainable forest management: crucial linkages in the Philippines

Maria Zita Butardo-Toribio, Floreen Anne Bartulaba and Elvino Balicao, Jr.

Various community-based tenure instruments have been developed in the Philippines to promote equity and justice in the forest sector (Pulhin, 1998). Experience shows however that lack of attention to gender differences and exclusion of women in the issuance of stewardship certificates and land titles can undermine positive gains from community forestry by creating adverse impacts for women and perpetuating gender inequality (World Rainforest Movement, 2002). While several laws provide formal equality in property rights between men and women in the Philippines, Certificates of Land Transfer (CLTs), Emancipation Patents (EPs), and Certificates of Stewardship Contracts (CSCs) are usually issued to rural men (Mendoza, 2007) who are traditionally viewed as the tillers of the land and forest workers. Landlessness disadvantages women and reinforces gender inequality because landownership is typically a requirement for access to formal and informal credit and the support services that usually accompany land distribution schemes (Geron 1991, cited in Mendoza, 2007).

Wao is one of the impoverished municipalities in the conflict-affected Province of Lanao del Sur in the Philippines' Autonomous Region of Muslim Mindanao. The experience of gender mainstreaming in this poor municipality demonstrates that recognizing the role and contribution of both men and women in forest management and providing secure tenure rights to both genders, can promote sustainable forest management and poverty alleviation in upland areas.

Wao's forestlands of nearly 20,000 hectares constitute more than half of the municipality's total land area. However most of its close canopy forest cover has disappeared due to a history of logging, slash-and-burn farming, and forest occupancy. Huge portions of the forest have been lost in conversion to agricultural lands, which occurred at a rate of about 400 hectares a day. The municipality was also losing its remaining natural forest at an annual rate of 4.6% (Balicao, 2010). Security concerns have also been a contributing

factor, as the municipality was formerly a hotbed of both communist insurgency and the Muslim separatist movement. This constrained people from making long-term plans in the watershed. With heavily denuded forest cover, the town experienced flash floods and water shortages during long periods of drought. Cash cropping on fragile slopes, which has been practiced for many decades, has also led to soil erosion and land degradation.

Upon the request of the municipality, the Philippine Environmental Governance Project (EcoGov) assisted the Local Government Unit (LGU) in the preparation and implementation of a Forest Land-Use Plan (FLUP)¹. Ecogov also provided assistance for the LGU to enter into a co-management agreement with the Department of Environment and Natural Resources (DENR) for a watershed area of almost 2,000 hectares. Practically all forestlands in the Philippines are under the jurisdiction and control of the state, through the DENR. The DENR issues different types of tenure instruments over forest lands, one of which is co-management between local government units and DENR.

The LGU, furthermore, took steps to improve its environmental governance processes by emphasizing the principles of transparency, accountability, public participation, and gender equality in the delivery of environmental services and conduct of environment functions. This was undertaken using the EcoGov-supported LGU Guided Self Assessment on State of Local Environmental Governance (GSA) tool.

The awarding of individual property rights (IPR) to legitimate farmer-claimants is a key part of the implementation of the FLUP and the co-management agreement. The IPR, a stewardship contract over three hectares of forestland, provides holders with the right to develop and derive benefits from the land for a period of 25 years. This is renewable for another 25 years on condition that IPR holders will protect and conserve the tenured area in consonance with the approved and legitimized forest land-use plan of the municipality. Specifically, the IPR applicant must commit to prepare a farm plan and cultivate species of perennial fruit or native trees. IPR holders are also required to monitor and report any forest violations.

The municipality's watershed rehabilitation program also featured a "plant now, pay later" scheme whereby seedlings of rubber and fruit trees were loaned out to farmer beneficiaries to be paid when the trees have become productive. Upland dwellers, organized into a cooperative, became priority awardees of IPR. The IPR earned them eligibility for the 'plant now, pay later' program.

¹ Ecogov is a collaborative effort resulting from the bilateral agreement between the United States Government through the United States Agency for International Development (USAID) and the government of the Philippines through the Department of Environment and Natural Resources. It is managed by Development Alternatives, Inc. as the main contractor.

The LGU has a trained Gender and Development team that implements gender mainstreaming activities. As part of this gender-based approach, women were given the opportunity to apply for IPR, and in fact about 20% of the current 153 IPR tenure holders are women. In the case of married holders, both spouses are asked to sign the stewardship agreement. This enables joint decision-making on utilization and management and business transactions concerning land and forest resources, which is improving gender relations in the area.

Recognition of their tenure rights has opened doors for women to actively participate in technical training, livelihood support projects, resource management planning, and forest land-use plan implementation activities. With their improved capability and secure tenure, the women have become more active than men in attending community meetings and in participating in LGU natural resource conservation projects. This enabled men, who used to dominate the discussions at these meetings, to give more time to conservation farming.

The leadership role of women is also emerging. A woman, Mrs. Perpetua Magdadaro, was overwhelmingly chosen by the community to chair the Banga Watershed Farmers Cooperative, which became the municipality's main partner in enforcing the forest co-management agreement. Perpetua has seen the real difference made by the IPRs, as she says:

"Before the formation of the Cooperative, it was difficult to convince people to plant trees. In our minds, there was always fear that the government or rogue bandits would eject us from the farms anytime. We did not care that we are losing our forests. We could not afford the seedlings for agroforestry, anyway. The IPRs give us hope and security. We are motivated by our farm plans and the seedlings we got from the nursery."

In addition, five women have been included as members of the newly reconstituted Municipal Environment and Natural Resources Council (MENRC). The MENRC has a total of 21 members and functions as the municipal policy-making body on environment and natural resources. It is specifically responsible for the implementation of the municipality's forest land-use plan, resolution of land and resource-related disputes, as well as planning, monitoring and evaluation of environmental programs and promotion of transparent, accountable and participatory delivery of environment services.

With their improved capability and secure tenure, the women have become more active than men in attending community meetings and in participating in LGU natural resource conservation projects



Shalyn Jarino and her mother Jane sign an agreement making them stewards of a forested area within Banga Watershed

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Dina Gracia, here with her son, is the first woman to be awarded an Individual Property Right in Banga village

© USAID/Floreen Bartulaba

Dina Gracia is the first woman in Barangay Banga to receive an IPR. She remembered the day of the IPR awarding:

"I was the only woman in the group. The Mayor asked me to speak. I told them I'm very happy because at long last, I have a right to stay in the land where I grew up and which my father worked hard to protect."

Dina implements her farm plan, plants vegetables and grooms the rubber trees in her co-managed property. She said during an interview:

"When you get married, you find out life is not as easy as receiving money from your husband. You will have high ambitions for your children. I often tell my eldest son, one day you will finish high school. By then, our rubber trees are ready for harvest. Perhaps, we can already send you to college."

The combination of forest land-use planning, tenure security and gender mainstreaming has produced some dramatic results: the municipality has effectively halted illegal logging activities within more than 2,000 hectares of watershed, addressed land conflicts which previously disadvantaged women-led households, turned 240 hectares of bare forestland into productive farms, shifted unsustainable upland monoculture to conservation-oriented agroforestry with endemic perennials, prevented yearly deforestation of about 40 hectares of natural forest, and produced estimated carbon benefits of nearly 9,000 tons/year from avoided deforestation and carbon sequestration².

The combination of forest land-use planning, tenure security and gender mainstreaming has produced some dramatic results

²The views expressed here do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.

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16. Shared gender leadership in Kandyan forest garden communities in Sri Lanka

K. M. A. Kendaragama and J.P.D.A.K. Pathirana

The Kandyan forest gardens in Sri Lanka represent a traditional agro-forestry system that supports rural people's livelihoods in the humid middle region of the country. This system provides beverages, fruits, spices, condiments and timber crops for food and income, as well as space for living. The lowlands adjacent to the forest gardens are used for cultivating seasonal food crops such as rice and vegetables. On average, the forest gardens are one-third of a hectare in size with over 250 individual woody perennials of about 30 species (NARESA, 1991). In recent decades these forest gardens have been subject to degradation as a result of population expansion and thereby land fragmentation. Over-harvesting of timber, earth excavation for house construction, soil erosion and damage from storm water have been the major causes of degradation.



Kandyan forest garden system, Wattappola and Panabokke villages

© K. M. A. Kendaragama

A questionnaire-based survey was conducted to explore the potential involvement of women in the restoration and management of these forest gardens. The survey was carried out in 2009 in the Wattappola and Panabokke villages in the Kandy district. A sample of 40 families was selected at random and information was collected on shared leadership in decision-making. A community-level discussion was held to validate the survey findings.

Results of this study showed that mothers and fathers spend similar amounts of time on work (13 hours a day), with fathers spending more time working outside the home and mothers spending more time working in the home (see Table 1). The survey also revealed that mothers tend to be more educated than fathers, and that parents, rather than grandparents or children, tend to be the major decision-makers within the family.



Table 1 Time allocation by parents for their day-to-day activities

Category of activities	Time allocation (hours)	
	Father	Mother
Work in the domicile	3.5	7.0
Work outside the domicile	9.5	6.0
Relaxing in the domicile or outside the domicile	4.0	4.0
Sleeping in the domicile	7.0	7.0
Total	24	24

In decision-making about financial and property transactions, 90% of such decisions are taken either by the mother or by both parents (see Table 2). These types of decisions relate to making day-to-day purchases, selling family properties to outsiders and deciding the value of the property, purchasing properties from outsiders and deciding the value of them, keeping money in hand, and contacting banks and post offices for money transactions.

For decisions on communication and public relations, 83% of these are taken either by the mother or by both parents. These decisions include receiving and making telephone calls, selecting which television channels to watch, inviting friends or relatives for a

meal at the home, deciding to visit friends or relatives outside the home, and going out for outdoor events. As regards family nutrition and childcare, 77% of decisions are taken by the mother. These decisions include selecting the menu for the daily family meals, enrolling children in school and selecting which school they will attend, enrolling children in tuition classes, selecting doctors for their children and taking children for medical treatment.

Table 2 - Decision-making among parents

Type of responsibility	Family member/s who has/have taken the decision (%)				
	Father	Mother	Both parents	Rest of the family	All the family
Financial and property transactions	10	54.2	35.4	0.4	00
Communication and public relations	5	33.8	48.7	10.8	1.7
Family nutrition and childcare	11.8	76.9	11.3	00	00
Management of seasonal crops	24.8	48.8	26.4	00	00
Management of permanent crops	65.5	14	15.3	5.2	00

For seasonal crop-related decision-making, 75% of decisions are taken either by the mother or by both parents, while decisions on permanent crops are more often made by fathers (who are responsible for 66% of these decisions). These kinds of decisions involve crop selection, land preparation, fertilizer and pesticide use, harvesting and the pricing of produce. This study reveals that mothers and fathers share responsibility for decision-making in their families' day-to-day activities. The role played by each parent varies with the different areas of decision-making. As mothers spend more time at home and tend to be more educated than their husbands, the potential exists for involving them in the restoration and management of their Kandyan forest gardens. The discussion held with community members after the survey revealed that some of the responsibilities for which female parents showed capability and interest were soil conservation, tree planting and maintenance, water harvesting and the processing of forest products. Hence, when investing in the restoration and conservation of this valuable forest system, efforts should be made to encourage the active participation of mothers.

As mothers spend more time at home and tend to be more educated than their husbands, the potential exists for involving them in the restoration and management of their Kandyan forest gardens

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17. Gendering joint forest management

Sejuti Sarkar De

In India, women are actively involved in the collection of various forest products including fuel wood, fodder and non-timber forest products (NTFPs). They participate as wage labour in forest department works and in entrepreneurial activities using forest products as raw material. So women spend significantly more time in forests than men do. Moreover, it is women who are most impacted by forest degradation, due to subsequent shortages of fuel wood, fodder and NTFPs.

Joint Forest Management (JFM) is a major strategy under the 'National Mission for a Green India' to enhance the country's carbon sinks. In India about 84,000 JFM Committees (JFMCs) protect 170,000 square kilometres of forest. In most states, women from forest-dependent households are members of a JFMC General Body and, as required by law, one-third of JFMC Executive Committee (EC) members are women.



Women members of JFM committees often remain silent and do not participate in decision-making

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However, it has been observed that the JFMCs are often dominated by the male members of the village who attend meetings and take important decisions, while the women members remain non-vocal and inactive. Women can nonetheless play a more crucial role in forest protection and help in maintaining the rules set by JFMCs.

In certain forest divisions of India, there have been instances of women forming Forest Patrol Teams and regularly patrolling the forest. One such example is the all-women Maheshpur Village Forest Management and Protection Committees (VFMPs) in Jharkhand where women not only patrol forests but also raid houses to recover 'stolen' wood. In India, the women members of poor households, who cannot migrate in search of jobs, often practice illegal cutting to sell the wood. On village market days, it is common to see women selling head-loads of fuel wood. Due to prevalent custom it is difficult for male forest officials or male JFMC members to catch these female offenders. Women members have been more efficient in catching women offenders and persuading them to stop taking fuel wood illegally.

The situation can be improved with the formation of similar All Women Forest Protection and Management teams throughout India. There have also been successful cases of all-women JFMCs in several states (Orissa, West Bengal, Uttaranchal etc.) and these could be replicated, in say, 5% of the JFMCs in all states, initially on a pilot basis. The trained women members could undertake forest patrols, raise awareness of the importance of forest conservation, and encourage adoption of technologies such as low-fuel smokeless stoves. Women's self-help groups can also be trained in alternative economic activities such as raising poultry and pigs, tending tree nurseries, processing NTFPs etc. to decrease the pressure on forests. Special motivation and training arrangements would be required as the majority of women JFM members are illiterate.

For the coordination of such a women JFMC programme, formation of a Gender Cell is recommended in each Forest Range comprising of selected women JFMC EC members and a Divisional Gender Cell which could conceptualize and lead the programme in the entire Forest Division. All the Gender Cells would be directly under the Divisional Forest Officer for better coordination, management and fund flow. This way the women offenders can be changed into forest protectors.

**Women not
only patrol
forests but
also raid
houses to
recover
'stolen'
wood**

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18. Women's micro-finance and forest conservation in India

Mark Poffenberger

Despite the substantial devolution of forest management responsibilities and greater rights to Asia's forest communities over the past twenty years, forest-dependent communities remain among the region's poorest. While women are often the primary forest users, community forest management (CFM) committees are often male dominated. This may reflect the male-oriented forest department staff that support such groups, as well as societal norms and practices. While efforts have been made to integrate women into CFM committees, including requiring a minimum percentage of women representatives, in many countries leadership of these groups remain controlled by men, with a consequent loss of valuable skills, knowledge and perspectives possessed by women in the community.

Lack of economic benefits accruing to community forest management groups may be related to three factors including inadequate capitalization and financial management capability, lack of market information and insufficient authority to make management decisions. Recent experiences suggest that these constraints can be reduced through cooperation between community forest management groups and women-administered micro-finance institutions. The following two cases illustrate how collaboration between women-centred micro-finance institutions and community forest management groups could enhance the productivity and capital assets.

Andhra Pradesh

Some CFM committees have been linked to village-level women's Self Help Groups (SHGs) under IFAD and World Bank projects. By 2003, there were 500,000 SHGs in Andhra Pradesh with a membership of 5 million women who have mobilized US\$ 238 million in savings. These grassroots micro-finance organizations are helping bring poor, forest-dependent households out of poverty and indebtedness. In some cases SHGs are being given contracts by various development agencies to manage reforestation and watershed restoration projects.

Strategic alliances between village-level CFM committees and SHGs enhance forest management and forest productivity by linking the financial management skills, market knowledge, and capital under the administration of village women with new community forest management institutions and their natural resources.

Northeast India

Community Forestry International is supporting pilot projects in the north-eastern states of Meghalaya and Manipur that provide payments for environmental services to indigenous communities for adopting stricter forest conservation and restoration activities. A substantial portion of the payments are used to establish and capitalize women-run SHGs. This activity helps off-set the opportunity costs of conservation resulting from lost income from fuel wood collection, forest grazing, quarrying, and other activities that were destroying the forest, while building capital assets for small enterprise activities including pig and poultry raising, horticulture, handicrafts and small food processing enterprises.



Members of a women's self-help group in Andhra Pradesh

© Mark Poffenberger

Learning from these experiences suggests that these women's groups possess attitudes, knowledge and skills that make them effective managers of capital and entrepreneurs. Discussions with village women indicate that they may have a greater tendency than their male counterparts to invest in the future of their villages by using financial gains to support schools, health clinics, training, and leveraging other enterprises. By linking women-administered micro-finance groups to community forest management institutions, new capacities are created to better position village-based institutions to manage conservation, environmental restoration, and development contracts from government and donor agencies, as well as creating stronger communities that can engage in forest carbon projects such as REDD.

These women's groups possess attitudes, knowledge and skills that make them effective managers of capital and entrepreneurs



19. Empowering the excluded: community forestry in Nepal

Kanti Risal

According to the national Gender and Social Exclusion Assessment commissioned by the World Bank and Department for International Development (DFID), Nepal, “gender, caste and ethnicity are three interlocking institutions that determine individual and group access to assets, capabilities and voice based on socially-defined identity” (DFID/World Bank, 2006). The study identified three domains of change where government, civil society and donors can intervene for pro-poor, pro-women and socially inclusive outcomes:

- Access to livelihoods assets and services.
- The ability to exercise voice, influence and agency.
- A more equitable “rules of the game” for all citizens to participate in the life of the state and larger society.

If successful, this would be a great stepping stone for nurturing democratic, equitable and inclusive forestry sector governance, based on the experiences of community forestry

Based on the outcomes of this study, Nepal’s Livelihood and Forestry Program (LFP), supported by DFID, developed its own Pro-Poor and Social Inclusion Strategy (PPSI) and a Livelihood and Social Inclusion (LSI) monitoring framework to help track LFPs impact on the above three domains of change. The implementation of the strategy has shown the critical importance of some of aspects of LFP’s approach. A few of these are outlined below.

Inclusive targeting

LFP’s inclusive targeting approach involves working with whole communities whilst addressing the particular needs and priorities of the poor and excluded, to ensure that a larger proportion of benefits reaches them. Using tools such as well-being ranking of households (to identify the poor and excluded); categorizing community forestry user groups according to their forest resource base (to see where extra support is needed); and disaggregating monitoring results in six categories of gender, caste, class, ethnicity, minorities and other groups, the LFP has been able to identify and address the needs of the poor and socially discriminated groups.



Women community forest-user group members prepare their forest resource map, Dang, Nepal

© Kanti Risal

Social mobilization

LFP's social mobilisers work to encourage local-level groups (including community forest user groups (CFUGs)) to listen and understand the rights of all members to participate in decision-making and share the benefits of the group activities. This has led to important changes in the governance and operation of these groups, such as new constitutions that ensure that women and lower caste members are well represented on their committees, sliding scales of membership fees based on the results of wealth ranking exercises, and free provision of firewood to older, weaker individuals. The social mobilisers also work with women and the socially excluded to raise their awareness about their rights and encourage them to play a more active role in their community organizations. They support the establishment of sub-groups catering to the specific needs of the disadvantaged and vulnerable—including for example single women's groups, Dalit (untouchable) groups, and non-timber forest product user groups. These groups help build confidence and leadership skills among the poor and excluded, empowering them to participate more effectively in the CFUGs and other organizations.

Efforts are now underway to incorporate these kinds of approaches into Nepal's national forest sector strategy. If successful, this would be a great stepping stone for nurturing democratic, equitable and inclusive forestry sector governance, based on the experiences of community forestry. There is tremendous potential for scaling up and replicating this PPSI and its tools and techniques, not only for community forestry and not only in Nepal, but anywhere where gender inequality, poverty and social exclusion exists.

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20. Women owning woodlands: a case study from the US

Lauren E. Redmore, Joanne F. Tynon and Nicole A. Strong

Across the United States, more women are becoming primary managers/owners of forests, yet these women often lack the confidence, knowledge, and access to resources that allow them to be successful. An Oregon family forest landowner survey conducted in 2005 estimated that women were primary managers of 40% of Oregon's family forests, but they only comprised 20-25% of education participants and 10% of professional association membership (Cloughesy, 2005). A 2005 study of forestland owner offspring conducted for the National Association of State Foresters showed that 83% of the women included in the sample were interested in managing their family forestland when transfer occurred, but only 34% felt they had enough knowledge to make forest management decisions (Mater, 2005).

Women who own or manage forests in the US tend to have smaller parcels (85 hectares compared to 183 hectares for men), lower average sales (US\$ 36,440 compared to US\$ 150,671 for men), and are less likely to attend educational events or be aware of assistance opportunities (Dougherty and Hilt, 2009). This puts women at higher economic risk. Women-operated forests also tend to be more diverse than male-operated land, producing more non-commodity and non-timber forest products.

In 2005 the Forestry and Natural Resources Extension Program at Oregon State University (OSU) worked with an all-female steering committee to develop Women Owning Woodlands Network (WOWnet), an extension program designed to:

- Recognize the growing number of women taking a wide array of active woodland management roles.
- Raise basic forestry and decision-making skill levels among women woodland managers through hands-on educational opportunities.
- Support and increase women's access to forestry-related resources.
- Encourage communication among Oregon's women woodland managers through the development of state-wide and local networks.

Women-operated forests also tend to be more diverse than male-operated land, producing more non-commodity and non-timber forest products

WOWnet
members
consult a map
during a forest
visit

© Nicole
Strong



Local WOWnet groups become self-directed. They prioritize topics and choose the location and dates of subsequent sessions. Usually, WOWnet participants take turns hosting tours on their properties with OSU serving as technical resource and facilitator.

While there is a plethora of information on women and land management in developing countries, we found that little was known about women in private forest management in the US. We therefore conducted an exploratory study of members of Oregon's WOWnet to better understand women forest managers, their motivations to join WOWnet, their forest management practices, and the barriers they faced in achieving their management goals. Using qualitative methods, we conducted semi-structured, in-depth interviews with 16 WOWnet women to learn about their experiences in forestry and their roles in forest ownership and management.

We found that despite evidence of an overall shift towards a more gender-inclusive forestry, gender roles can still be limiting for many women. Some WOWnet members stated that being a woman meant having to prove their abilities. It was felt that traditional and inflexible perceptions of gender roles in forestry are problematic and present a major challenge to both women and men. Nevertheless, many women emphasized that they had positive experiences, that there are more women involved in forestry than ever before, and that women are taking increasingly active roles by accessing forestry-

related knowledge and participating more in the forestry community. Some interviewees noted the importance of generational differences in women's increasingly active role in land management. They pointed out that women who at one time may have been the passive partner in land management are now more active in forest management.

Women are important players in establishing a vision of good land stewardship. We discovered that, regardless of their forest management objectives, WOWnet women consistently emphasized the need for good stewardship of their land. They also stressed long-term sustainability. In striving for effective transfer of their land in the future, some interviewees believed that not only are they ensuring the sustainability of their forest land, they are also helping with some 'bigger picture' problems. Their efforts contribute to local economies and provide ecosystem services such as wildlife habitat and clean water that benefit all of society.

Women can face barriers in accessing forestry knowledge that hinder their achievement of management goals. Involvement in organizations like WOWnet, the Society of American Foresters, and Oregon Small Woodlands Association are an important part of women's overall awareness of forest management, forest standards, and forest regulations. These organizations not only supply information that women need to know but also provide opportunities for social networking. WOWnet is an important, additional source of accessible information for some, while for others it can be a vital starting point to becoming involved in forestry.

WOWnet is unique among forestry communities because of its horizontal, small-group, and praxis-based approach. The female perspective, both in terms of the kind of information and the delivery of information, attracts diverse women interested in learning and sharing forestry knowledge. Results of our study suggest that WOWnet, because of its focus on women's unique capacities, interests, and needs, can help women overcome perceived barriers and enable them to achieve their forest stewardship goals.

Women's ability to participate fully in forestry, a predominantly masculine world, signifies a broader social shift. While women in forestry have been marginalized in the past, their roles are now changing. Women are working in forests, owning forests, and they are actively engaged in forest management – options that did not exist before. Forestry is changing and WOWnet women's experiences exemplify many of the changes. Despite the struggles that some interviewees faced in gaining initial acceptance within the forestry community, WOWnet women were and continue to be groundbreakers. It is because of their efforts that we see increased opportunities for women to become active in a more inclusive forestry community.

We would like to see more land management programs specifically for women like Oregon's WOWnet and comparable programs in Alabama (Women in Land Ownership) and Maine (Women and the Woods Program). Forestry extension, in choosing to focus on an underserved and marginalized land manager group, has shown it can be effective in creating and implementing programs that recognize forest management diversity. This can ultimately empower and strengthen the family forestland owner community.

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21. Forestry in Italy: what place for women?

Antonella Veltri and Mariella Russo

This chapter outlines the results of a small research project carried out to investigate the extent to which women are engaged in Italy's forest sector. It is well known that women in Italy are rarely able to advance in employment and there are few women in managerial positions in this country.

Introduction

While there have not been any specific studies on the role of women in Italy's forest sector, research by the Organisation for Economic Cooperation and Development (OECD, 2009) indicates that women are well represented in the fields of STEM (science, technology, engineering and mathematics). This seems to contradict the widely held notions that women are less suited to scientific research than men are and that scientific theory as an area of study is a "man's world".

Are women still subject to such prejudices and stereotypes within these fields? The American Association of University Women (Hill, et al., 2010) claims that, although the number of women in STEM is growing, their presence is still inadequate. The reasons given for this gender gap are based on a variety of cultural, environmental and social issues. Just over a decade ago, research conducted by Wennerås and Wold (Wennerås & Wold, 1997) showed that women who want to participate in these areas of study need to be 2.6 times more prepared than their male colleagues.

Methodology

The research reported on here was conducted largely as an internet-based desk study. The website of the Ministry of University and Scientific Research (www.anagrafe.miur.it) was consulted to investigate the percentage of female graduates in forestry and forest science between the academic years 2003-2004 and 2008-2009.

In addition, the websites of five representative provinces (Calabria, Florence, Padua, Reggio, Sassari and Turin) were consulted to identify the number of women members

in forestry professional associations. Finally, the President of the National Committee of Equal Opportunity, State Forestry was consulted in order to reveal the number of women working for the State Forestry Body.

A number of interviews were also conducted with women working in the forest sector. The respondents included a freelance consultant, a researcher of a public forestry institution and a forest professional working in the state forestry body. The focus of these interviews was the experience of respondents in terms of any gender-specific issues, and any difficulties and obstacles they had encountered in their work.

Analysis and discussion

Data from internet research

Data from the websites consulted show that over the period from 2003 to 2009, women made up around 33% of forestry graduates (see Table 1).

Table 1 - Percentage of women among forestry graduates (2003-2008)

Academic year	Female	Male	TOTAL	%
2003/2004	10	22	32	31,3
2004/2005	42	71	113	37,2
2005/2006	41	73	114	36,0
2006/2007	38	81	119	31,9
2007/2008	72	173	245	29,4
TOTAL	203	420	623	32,6

For comparison, the percentage of women graduates in the humanities over the same period was about 78%.

Why this gender gap among forestry graduates? One reason may be that women tend to choose degrees which will lead to job opportunities more suitable for the traditional social structure, which considers women as irreplaceable figures in the family. Forestry work may well be seen as incompatible with this structure as it would require women to spend a good deal of time away from the home.

The number of women registered in the Professional Association of Agronomists and Foresters is on average 30% of the total number of members. The province of Florence had the largest proportion of woman members (47%) while Sassari had the smallest (16%). This difference between provinces may reflect the fact that there are more self-employed professional opportunities in the northern areas of Italy, compared to the less developed south of the country.

Within the four national research institutions in the forest sector, women make up an average of about 34% of managers (permanent staff, i.e. Director of Research, primary research, research, technology), as shown in Table 2.

Table 2 - Managers at the four national research institutions, by gender

National Council Research Institute (permanent staff)	TOTAL	Female	%
IPP (Plant's Protection Institute)	32	14	43,8
ISAFOM (Institute for Agricultural and Forest Systems in the Mediterranean)	31	8	25,8
IBAF (Institute of Agro-environmental and Forest Biology)	32	12	37,5
IVALSA (Trees and Timber Institute)	16	4	25,0
TOTAL	111	38	34,2

Although the data gathered are partial (they omit for example faculties of forestry in universities), they offer a somewhat reassuring vision regarding the presence of women playing leading roles in forestry research in Italy.

The final institution studied was Italy's state forestry body. This institution, specialising in environmental protection, employs about 1400 women out of a total workforce of almost 8500 (see Table 3). However, here, again there are still few women holding managerial positions. This may be partly due to the fact that women have only recently been employed by this institution.



Table 3 - Number of women in Italy's state forestry body

Qualification	TOTAL	Female	%
Manager	647	121	18,7
Technicians	773	284	32,1
Agents, Assistants, Inspectors	7072	1369	19,3
TOTAL	8492	1738	20,5

Interviews

From the interview responses received, it seems that obstacles to women's participation in the workplace are not specific to the forest sector—a similar set of barriers is present in other sectors. However, for self-employed work in the forest sector there appears to be particular discriminatory behaviours based on the widespread failure to recognize women in positions of authority. As one woman put it, "It's pretty hard to listen to some [male] co-workers' comments. There is a good deal of irony, sarcasm and superficiality." This discomfort with the comments made by their male colleagues was a common point raised by the women interviewed.

At the same time, self-employed women in this sector sometimes choose not to participate in important projects because of the difficulties foreseen in overcoming prejudices and other gender-related problems.

Another element which emerged from the interviews is the lack of opportunity for women to network in the scientific field, as this is normally seen as the domain of men. This in turn leads to a widening gender gap as men can take advantage of the contacts and opportunities such networking provides.

Conclusions

It might be thought that forestry, as a scientific field, is gender-neutral and based on a merit system, and therefore not open to discriminatory issues. However, this study seems to reveal that discriminatory structures are still well established in this field. Women face multiple obstacles to participating and advancing in the forestry sector. These obstacles include a lack of social support to help women juggle their work with their home life and their responsibilities for looking after their children and their elderly relatives, and the difficulties they encounter in getting the same levels of recognition and respect that their male counterparts enjoy.

Some of the employment statistics that have come out of this study are encouraging, with women making up a significant proportion of the workforce in a number of forest-related institutions. However, forestry in Italy is still predominantly seen as a 'man's job' and much needs to be done to help break down some of the prejudices and barriers that are hindering its development as a more gender-balanced sector.

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For self-employed work in the forest sector there appears to be particular discriminatory behaviours based on the widespread failure to recognize women in positions of authority



22. Mainstreaming gender in the UK forest sector: livelihoods and equality of access to forest benefits

Bianca Ambrose-Oji

The idea of gender mainstreaming has been widely promoted in developing countries. Differentiation in gender roles around the use and management of forests in these situations is often very obvious, and gender mainstreaming has been concerned with the protection and promotion of women's interests and roles - particularly their access to a broad range of forest resources and livelihood benefits.

Gender mainstreaming is becoming a significant issue in developed countries too. Although the mainly urbanised communities in countries such as the United Kingdom (UK) have less direct connections with trees, woods and forests, traditional boundaries between rural and urban resources are breaking down, and the forestry sector is changing, moving away from simply timber production to the provision of a whole range of product and service benefits in rural and urban environments.

Gender mainstreaming in UK forestry is about the promotion of gender equality through policy and programme. There are two important areas of influence. The first is the link to livelihoods through employment in the forestry profession and through the development of forest-related enterprises. The second is about gender dimensions of access to the provisioning and cultural services forests provide which contribute to people's health and wellbeing.

Figures produced by the UK Labour Force Survey (UK Office of National Statistics, 2010) show the majority of livelihoods are secured through paid work as an employee (84% of the labour force). Although employment rates for men are higher than women, the last 20 years have seen a significant increase in the number of jobs performed by women. Nonetheless, a gender gap is still clearly evident, with skilled and professional jobs more often the domain of men rather than women. UK national legislation such as the Sexual Discrimination Act (1975) and the new Equalities Act (2010) were designed

to promote gender equality in the workplace. This legislation has supported gender mainstreaming, but many of the structural barriers to gender equality in forestry have been difficult to overcome. Employment in agriculture and forestry involves about 6% of the population, but only 16% of employees in forestry and the timber chain are women.

Evidence suggests that the image of forest sector employment is ‘masculine’, involving dangerous and dirty work, and work which is ‘old-fashioned’ rather than progressive and dynamic (Bond, et al., 2008). Over 40% of female school students said they would rule out employment in the timber chain because “it’s a man’s job and you need to be strong” (Bond, et al., 2008). These perceptions illustrate a lack of understanding that modern forestry is not only about managing trees or processing timber, but is more and more to do with providing recreation and leisure services, involving communities in forest-based activities or decision-making processes, or developing forest education.



De-limbing an oak: women are taking up forestry apprenticeships supported by the Forestry Commission, U.K.

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The Forestry Commission is the UK government organisation responsible for the protection and expansion of the country’s forests and woodlands. As such it has a major role in formulating forest policy and facilitating actions which influence the forestry sector. The Commission has been actively promoting greater gender awareness and supporting a number of initiatives to increase the recruitment of under-represented groups, including women, into forestry employment. As reported in its Gender Equality Strategy 2010-2013, the Forestry Commission has seen a 5% increase in the number of female staff employed during the last 5 years. This has been achieved by improving contract flexibility, improving branding and advertising of the range of roles on offer. The

Forestry Commission has seen a 5% increase in the number of female staff employed during the last 5 years

Commission has also been working to influence recruitment into the industry through partnership initiatives with, for example, the Scottish Resource Centre for Women in Science Engineering and Technology, and some of the major businesses and industry bodies through national apprenticeship schemes, as well as projects such as 'Closer to Home' in the National Forest in the English Midlands which focuses on social enterprises which involve or provide benefits most attractive to women.

Women from different cultural backgrounds take an accompanied walk to introduce them to recreational and health benefits of woodlands, Scotland

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Turning attention towards wellbeing concerns, there is now a significant body of evidence which shows the important contribution that walking and exercising in woodlands or urban green space with trees makes to wellbeing (O'Brien et al., 2010; Carter and O'Brien 2008). Some of these benefits can have a disproportionately positive impact on women, particularly on women of lower social economic status and those from ethnic minority groups, who are particularly prone to mental health problems and cardio-vascular disease. Improving access to green infrastructure, woods and forests requires an understanding of the barriers preventing women from visiting. The UK Public Opinion of Forestry and national visitor surveys show that more men than women visit forests and woodlands, and men engage in a wider variety of recreational activities in forest settings. Other evidence describes perceptual barriers that women have which relate to their feelings of vulnerability and safety and affects their behaviour. Women and mothers of younger children are particularly concerned with managing personal risk in woodlands including what to do in case of an accident, avoiding getting lost,

and evading risk of attack by criminals (Morris, et al., 2011).

Women from ethnic minority backgrounds may have additional barriers such as cultural norms which, as in the case of some Asian communities, do not expect women to spend leisure time outdoors.

The Forestry Commission and strategic partners delivering UK forest policy have been at the forefront of working to help overcome these barriers. The Equality Act (2010) looks for a proactive approach amongst public bodies to working for equality and social inclusion. This has seen the Forestry Commission and non-governmental partnership organisations undertake actions on the public forest estate to promote access, recognising the above-mentioned gender-specific concerns. These actions include, for example:

- Adapting forest and woodland modelling using different species and management techniques to create 'lighter', less dense wooded areas to counter feelings of fear
- Increasing and improving access routes for those on foot and using prams and pushchairs using new materials such as boardwalks.
- Organising walking groups and facilitated walks for women from Asian backgrounds to provide chaperoned forest visits.
- Supporting projects with new immigrants to the UK helping women make connections to their past lives through activities in forest settings.

Traditional gender roles have seen significant change in the UK over the last two decades, with men now more likely than ever to take a more significant part in domestic life and childcare. The Commission has responded to this by developing other programmes which look at encouraging activities such as "Dads and kid days".

Whilst the forest sector includes a diverse range of actors and a mix of public and private enterprises, policy and programmes such as these described here have gone some way towards mainstreaming gender concerns in the UK context.



Providing woodland access to accommodate changing gender roles: father out with his baby, Kiveton Community Woodland, England

© Crown Copyright, Forestry Commission / John McFarlane

Improving access to green infrastructure, woods and forests requires an understanding of the barriers preventing women from visiting

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Part C:

Forests and gender in the international and global arenas





23. Gender-sensitive climate change strategies: an opportunity for forests

Lorena Aguilar, Daniel Shaw and François Rogers

Recognizing women as part of the solution

Climate change is one of the most urgent priorities on the global agenda. The impacts are already being felt, with every country in the world grappling with the challenges of mitigating the causes and—especially for developing countries and vulnerable populations—adapting to its effects. Increasingly, the evidence reveals that the impacts of climate change are not gender-neutral. Women and men experience climate change differently and their capacity to cope with it varies.

The 2007 UNDP Human Development Report cautions that gender inequalities intersect with climate risks and vulnerabilities, concluding that climate change is likely to amplify and exacerbate existing patterns of gender disadvantage. Thus, women's historic disadvantages, their limited access and control over decision-making, environmental and economic resources, and their restricted rights, make them more vulnerable to climate change.

However, this disproportionate burden of climate change on women can be countered by their empowerment and recognition. Women have important primary roles as managers of forests, land, water, and other natural resources in many communities. This position makes them powerful agents of change in formulating responses to climate change. Women are part of the solution.

Women act as leaders in identifying ways in which to cope with and adapt to climate change. They are fundamental to mitigating climate change, largely due to their critical role in optimizing energy efficiency, their receptiveness to greener sources of energy, as well as their power to change and influence consumption patterns.

**Women
and men
experience
climate
change
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varies**

Women have a key role within the household to change the attitudes and behaviour of their families, and are responsible for providing food and water. Thus, national and regional climate change strategies will have a much greater potential to ensure efficiency, effectiveness and quality of implementation if they are developed to include a gender component, paying particular attention to the role and contributions of women.

We've come a long way

Despite all this, gender was absent from decisions by its Conference of the Parties (COPs) or its Subsidiary Bodies for the entire first two decades of the United Nations Framework Convention on Climate Change (UNFCCC). In addition, very few National Adaptation Programmes of Action to Climate Change (NAPAs) and National Communications submitted by Parties to the UNFCCC addressed gender considerations. Recognizing this glaring imbalance between deficiency and potential, IUCN's Gender Office has been working with its partners to ensure that gender considerations are acknowledged in climate change discussions, policies and strategies at the international, regional and national level.

Focusing on knowledge development, capacity building and advocacy, IUCN's work on gender and climate change has already yielded considerable impact. Some successful outcomes include:

- Co-founding the Global Gender and Climate Alliance (GGCA), an alliance of 13 UN agencies and more than 25 civil society institutions working together on gender and climate issues.
- Publishing of the first Gender and Climate Change Training Manual in 2008 (along with other key knowledge products) now used around the world to include a gender perspective in the analysis and implementation of national and regional adaptation and mitigation measures.
- Training some 400 experts and 260 government delegates, from over 100 different countries, on the linkages between gender and climate change. Such capacity building and awareness raising also acts as a driving force behind government requests to IUCN to develop gender-sensitive policies and initiatives that will assist with implementation and action at the national level.

At the global level, governments have now widely agreed that gender equality is a key aspect to achieving climate change goals and other development targets. Governments are now increasingly paying special attention to gender issues, with more than 40 official references made to gender in UNFCCC negotiations since 2008.

The most recent set of UNFCCC decisions towards a global deal, known as the Cancun Agreements, contains no less than eight strong gender references.

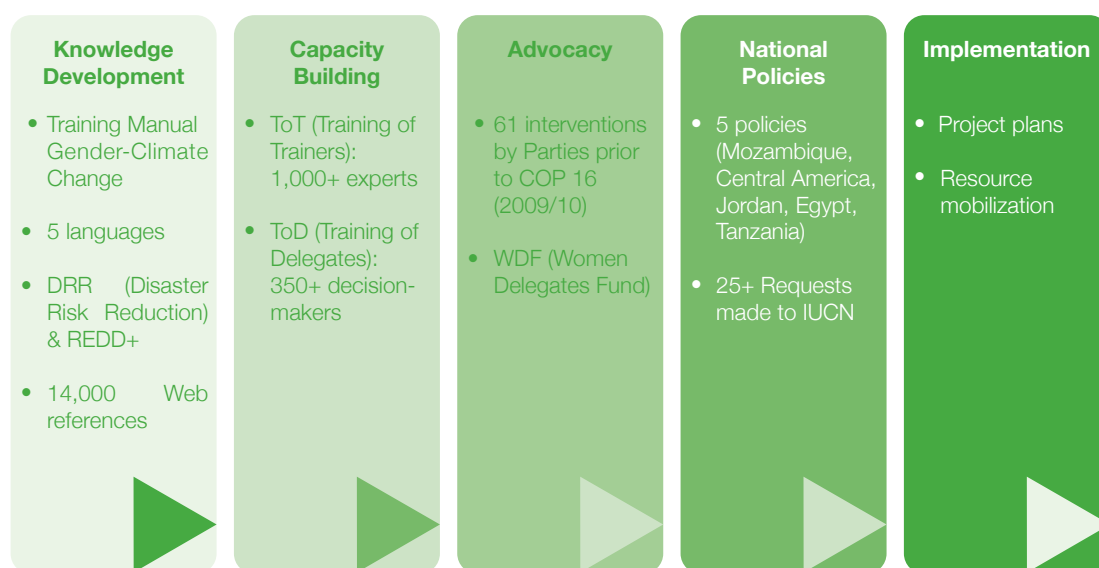
Development of gender-sensitive strategies¹

This paradigm shift is in no small measure the result of the continued efforts of IUCN and its partners. The understanding of the linkages between gender and climate change has resonated with governments which now want to mainstream gender in their national climate policies and plans. IUCN is working with these governments, many of which are IUCN members, to build their capacity to develop gender-responsive climate change strategies and programmes.

Methodological process

Figure 1 illustrates the process and key elements of developing a national or regional gender-sensitive climate change strategy by IUCN and its national partners. Although firmly structured and detailed, the method remains importantly responsive to the differing socio-political and environmental contexts within which it is applied. As the figure shows, implementation of plans and strategies flow from national policies, which are grown out of global, national and local advocacy. The entire process rests upon a fundamental, initial stage of comprehensive knowledge and capacity building on gender and climate change issues.

Figure 1 - Gender and climate change process



¹These gender-responsive climate change strategies have been produced thanks to the financial and visionary support provided by the government of Finland.

Characteristics of the strategies

Although tailor-made to the needs and circumstances of each country, each IUCN-developed national/regional strategy has a set of generic, defining characteristics. They:

- Are demand-driven.
- Cover a wide range of topics, as agreed by stakeholders.
- Provide solutions to both rural and urban communities.
- Require resultant projects and initiatives to have concrete indicators and to be built from the bottom-up.
- Provide technical solutions at all levels, from the household to national level.
- Are flexible in that when further policy modification is required, appropriate revision is possible.
- Contain institutional imperatives.
- Build the capacity and coordination in and amongst institutions related to climate change.

In being driven and led by countries themselves, the national strategies are built on the capacity of local stakeholders and ensure local ownership; are entrenched in local context; respond to local needs; suit internal institutional arrangements; and undergo national legalization processes—securing ultimate success in implementation.

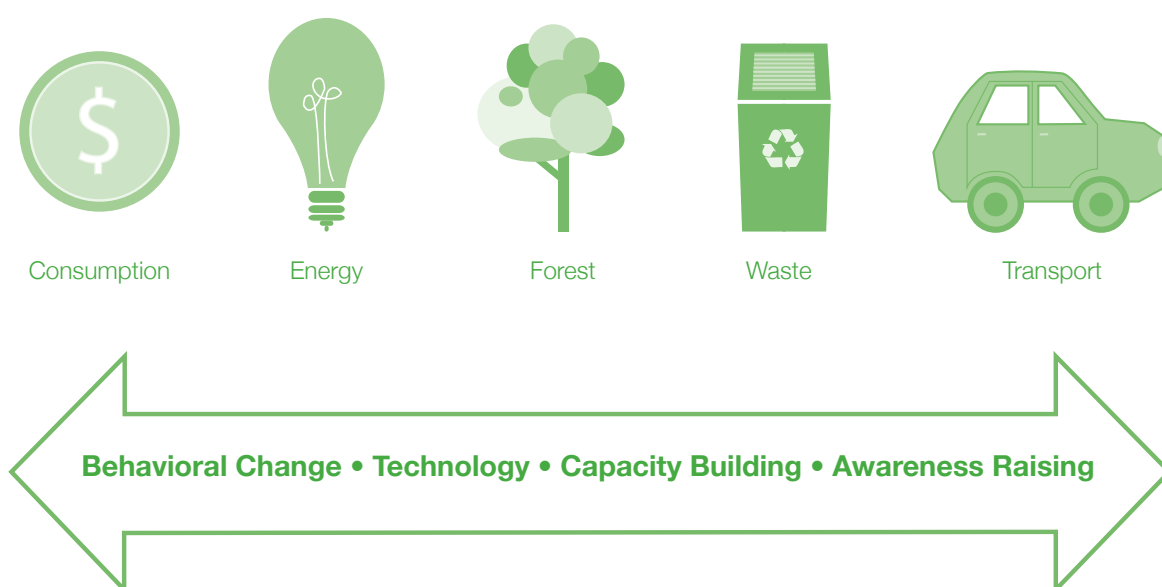
The strategies are based on firm principles which focus their development on obtaining results—as shown in Figure 2—aiming to ensure that national and regional climate change processes mainstream gender considerations in order to guarantee that women and men can have access to, participate in and benefit equally from climate change initiatives.

Figure 2 - Principles behind the strategies dealing with mitigation



The process through which national strategies are developed necessitates careful analysis of the situation of gender and climate change, conducted by the local stakeholders themselves, and operational planning for the future. As shown in Figure 3, this analysis and planning is comprehensive and cross-sectoral, examining key issues such as consumption, energy, forests, waste and transport through the lenses of behavioural change, technology, capacity building and awareness-raising.

Figure 3 - Mitigation topics covered by the national strategies



With this approach, IUCN's engagement efforts have led to the development and support of regional and national plans of action for climate change that crucially include gender dimensions.

Recent successes in establishing national and regional strategies

Mozambique

In January 2010, the IUCN Gender Office developed the world's first gender-sensitive climate strategy in Mozambique. The National Climate Change and Gender Strategy incorporates gender mainstreaming and includes gender indicators for all areas of climate change activity undertaken by the national government. The process of developing the strategy in Mozambique raised women's voices and concerns into an arena of high national priority and established the unprecedented expectation that all climate change related projects and activities conducted in the country by donors, NGOs, and external partners will incorporate gender considerations.

The strategy has undergone a national legalization process: it was submitted for comment at provincial level, followed by its presentation to the National Council for Sustainable Development, where it was assessed positively. It was later adopted and endorsed by the Council of Ministers. The strategy for Mozambique, with its respective Plan of Action sets out priorities in harmony with other major national environmental actions such as the PECODA, NAPA and—importantly for forests—the Action Plans for Combating Erosion and Uncontrolled Fires, and the Presidential Initiatives “One Student One Tree Each Year” and “One Leader One Community Forest.” In the roll-out plan for implementing the strategy, the Ministry for the Coordination of Environmental Affairs has the objective of reaching around 1.5 million communities in a five-year period (2010-2014) and to cover the entire country by 2025.

Central America

During the summer of 2010, IUCN finalized the first gender-sensitive climate change strategy for the Central American region. Recognized as one of the most biodiversity-rich regions in the world, Central America is also moving towards a political integration system—Sistema de la Integración Centroamericana (SICA)—whereby all of the Ministers of Environment in the region fall under one Central American Commission on Environment and Development (CCAD), a coordinating body working on developing a regional climate change strategy. Under SICA, civil society is recognized and women are acknowledged as a major group, and they can therefore participate and engage fully in advocacy.

The strategy provides regional guidance and was upheld at a Meeting with Network of Women Ministers (COMCA), approved and legalized by the Council of Ministers of the CCAD. It created such political pressure that it led to the incorporation of gender as a mandate in the Heads of State declaration in relation to the climate change strategy for the region (July 2010).

Jordan

In the autumn of 2010, IUCN supported and developed the “Programme for Mainstreaming Gender in Climate Change Efforts in Jordan”, a key document used by the Government of Jordan in the development of the country’s Third National Communication to the UNFCCC. The subsequent Plan of Mainstreaming Action on Gender and Climate Change aims to ensure that national climate change efforts mainstream gender considerations so that women and men can have access to, participate in, contribute to and hence optimally benefit from climate change initiatives, programs, policies and funds.

Egypt

In June of 2011, IUCN supported the development of the National Strategy for Mainstreaming Gender in Climate Change in Egypt. The framework for integrating a gender perspective in climate change efforts in Egypt covers the period 2011–2016 and again will be an integral part of the Third National Communication Report for the country. It establishes objectives, outlining substantive activities with achievable indicators within the ambit of eight priority sectors. The objective of this Strategy is to mainstream gender considerations into national climate change initiatives and policies, so that both men and women have equal opportunities—as in Jordan’s strategy—ultimately contributing to national economic, environmental and social sustainability.

United Republic of Tanzania

Most recently, and at the time of writing, IUCN has been supporting the government of Tanzania to develop a national strategy on gender and climate change. The multi-stakeholder process of developing the gender strategy is aligned with the development of the National Climate Change Strategy and Action Plan. Initial work is ongoing.



Gender-balanced community forest committee discusses activities around a car, Tanzania

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Elsewhere...

In addition to these examples, IUCN is in the process of finalizing similar strategies for Costa Rica, Haiti, Nepal and Panama. IUCN is trying to respond to the demand of more than 25 governments from all regions of the world that have requested support to develop national plans of actions on gender and climate change.

Addressing the role of forests

One might well raise the question, How have the national and regional gender-sensitive climate change strategies, developed in partnership with IUCN, addressed the role of forests?

To date, three of the strategies have concrete actions for the forestry sector: Central America, Mozambique and Tanzania. As an example, an excerpt from the Central American strategy can be seen in Figure 4, demonstrating the role of forests in strategic gender-sensitive objectives and associated action.



Figure 4 - Gender-forest relevant excerpts from the Central American Climate Change Strategy

Objective	Actions
1.3.2 Design and implement policies with economic incentives to reduce vulnerability of forest and biodiversity to climate change, incorporating gender criteria	1.3.2.1 Systematize economic and financial incentives used currently in the region and their contribution to adaptation of biodiversity and forest eco-system to climate change. This includes payment for environment services
	1.3.2.2 Promote existing financial mechanisms to recognize and compensate for environmental services that forest eco-systems offer, to conserve biodiversity, hydrological services, and agricultural eco-systems for mitigation and adaptation to climate change, including a reduction in emissions due to deforestation
	1.3.2.3 Find synergies between REDD mechanisms and adaptation of forests, biodiversity, and water resources to climate change and variability
	1.3.2.4 Design criteria to assure that all REDD processes incorporate gender issues to guarantee full participation of women and improved distributions of benefits
	1.3.2.5 Include a gender perspective in national standards and guidelines in order to assure that women have access to and control over benefits provided by economic and financial incentives
	1.3.2.6 Design and implement policies that promote economic and financial incentives based on the reality of each country and its contribution to adaptation of biodiversity and forest eco-systems to climate change, including payments for environmental services

As more countries adopt the gender-sensitive strategies, they are simultaneously becoming an important entry point to ensure that gender considerations are fully recognized in forest governance and distribution of benefits. Some of the issues and areas particularly relevant to sustainable forest management and forest conservation that these processes have recognized are:

- Men and women having differing roles with regards to forest resource management; differing roles in planting, protecting or caring for seedlings and small trees; and in planting and maintaining homestead woodlots and plantations on public land.

- Women – as well as men – having a crucial role in reforestation and as forest managers.
- Women's representation in major decision-making fora related to forests and climate change.
- Mainstreaming gender in guidelines/protocols for REDD+ phases.
- Gender disaggregated data concerning the causes of deforestation.
- Capacity building of women and women organizations on REDD+.
- Gender-specific risks and opportunities identified in communities/regions.
- Women's access to and ability to benefit from forest-related market mechanisms.
- Development of safeguards and standards regarding forest-related issues and programmes.

Stimulating cooperation and opportunity for other sectors

The national strategies create coherence and bridge the divides between different government departments and other stakeholders dealing with women and climate change. Through the multi-stakeholder engagement process, the strategies increase public awareness of climate change and gender equality issues, to stimulate interest, participation, and consultations with different stakeholders in developing climate change policy, and to increase capacity of those national actors to continue their involvement.

Finally, the substantial demand from governments for developing national plans of action on gender and climate change creates a considerable potential to include gender perspective in the forest sector (including REDD), which will be critical to addressing forest governance challenges comprehensively and effectively. The various efforts in countries and regions on forests, climate change and gender will only succeed when they are integrated and cooperate from the strategic and policy level right through to implementation and coordination at the field level. Some of the innovative aforementioned strategies are beginning to show what such integration looks like.

As more countries adopt the gender-sensitive strategies, they are simultaneously becoming an important entry point to ensure that gender considerations are fully recognized in forest governance and distribution of benefits

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24. Wrapping up: the status of international forest policy and gender

Lorena Aguilar, Andrea Quesada-Aguilar and Daniel Shaw

Women, men and forests

People around the world rely on both the material goods and the ecosystem services forests provide, and this reliance is different for women and men. It has been known for some time now that the way people use and manage forests depends on various factors, including the socio-economic and socio-cultural environment, age and gender (FAO, 1989) and many case studies, including those presented in this book, have shown us unequivocally that:

- Women and men's dependence on forests is different.
- Women and men obtain different products and receive different benefits from forests.
- Women and men will use forest resources for different purposes.
- Women and men have different knowledge, access and control of forests.
- Forestry projects involve men and women in a different way; and women tend to be excluded.
- Women and men contribute in differing manners to forest conservation and management.

Table 1 illustrates these contrasting relationships between men, women and forests with specific examples.



Table 1 - Examples of relationship: forest and gender

Women and men's dependence on forests is different	- For poor women, forest products represent 32% of their income in Thailand where most of this income is non cash. (IUCN, 2008). Women in Burkina Faso depend most directly on forests and other natural resources to provide for their families. Data shows that forest income contributes more to women's total income than men's total income. For poor women forest income represents 50% of all their income and for poor men it represents 45%; for wealthy and middle-income women it represents 44% and for wealthy and middle-income men it represents 38% (IUCN,2009). - Women are usually the main collectors of water and fuel, and most women farmers depend on rain-fed agriculture. In many societies, they turn to forests both to diversify and add flavour to the range of subsistence foods they offer their families, as well as for cash (FAO, 2011). - It is normal to find that women depend on forests more than men for off-farm income, while men generally depend more on conventional wage-generating labour. Among the Akan in southern Ghana, while the profits from any on-farm activities go to the male household head, women seek to generate income which they control themselves, to safeguard their future.
Women and men obtain different products and receive different benefits from forests	- In Salvatierra, Bolivia, men clear forests for swidden fields and hunt and women visit forests to collect firewood and fetch water (Cifor, 2004). - Women use extensively wild patches and marginal areas from which they collect wild plants for food, medicine, and seed generation. In Mexico, women gather food such as fungi, wild quelites and wild potatoes (Cabrera et al., 2001); and in villages in Turkey 15% of the women gather food, medicinal plants and materials for weaving from forest areas (Torksoy et al., 2010). - Women collect twigs and small branches for fuel, and men will cut down the same tree to sell as firewood or to be used in construction (Hannan, 2002). Women worldwide rely primarily on wood for home heating and cooking.
Women and men will use forest resources for different purposes	- In Cambodia, men collect non-timber forest products (NTFPs), such as resin, to sell at the market and women collect NTFPs, such as bamboo, to meet family dietary needs (Conservation International, 2008). - In Benin and Cameroon, women increase their collection and sale of non-wood forest products (NWFPs) at times of increased need for income: right before children's school-fees are due, at times of year when ill-health is more common, and during the hungry pre-harvest period (Schreckenberg et al., 2002). - Local trade of NTFP provides women of poor households in South Africa and Cameroon means to buy food, supply household needs, and pay school fees (Shackleton et al., 2007).
Women and men have different knowledge about, access to, and control of forests.	- In Southern Brazil women know a wider diversity of plants and cited 41 species that they use exclusively. Men cited 22 species they use exclusively (Merétika et al., 2010). - In Niger, women identified more plant species that are edible or for construction; and medicinal plants for pregnancy, lactation or jiti, medical baths for infants (Dan Guimbo et al., 2011). - Women are commonly without any formal rights to land or forests. Fewer than 10% of women farmers in India, Nepal and Thailand own land (FAO, 2008). - In Cameroon, women's rights are recognized by the family, but trees officially belong to the household head and are easily integrated into male systems (Schreckenberg et al., 2002).



Table 1 - Examples of relationship: forest and gender (continued)

Forestry projects involve men and women in a different way; women tend to be excluded

- Between 2000 and 2008, the proportion of female staff in public forest institutions diminished from 23.5% to 22.1%. The decrease is due mostly to reductions in the Eastern and Southern Africa and the East Asia subregions (FAO, 2010).
- Women do not participate in forest projects:
 - Because planners assume they cannot do heavy work (Bolivia).
 - To maintain the illusion of male dominance (Zimbabwe).
 - Because they are busy with other activities (Nepal) (Cifor, 2004).
- In Madagascar the creation of a national park was done without consulting women, which limited women's access to forest resources and reinforced gender inequalities, as now women consider the park a man's space (Järvilehto, 2005).

Both women and men contribute in a different manner to forest conservation and management

- In South-East Cameroon, Baka women condemned logging because it damaged valuable trees that provide fruit, kernels and medicinal barks and leaves. Women would like to have bigger community forests so they can manage their own forests and harvest wild fruit, roots, wild yams and also raw materials for crafts, e.g. making baskets (Achu Samdong, 2009).
- Direct participation of women in decision making and forest protection increased forest regeneration and control over illegal grazing and felling (Agarwal & Chhatre, 2006).
- In Nepal plots with both men and women and those given to all women groups had greater canopy cover due to improved protection, rule compliance and traditional knowledge of species (Agarwal, 2009).

What are gender considerations in forestry?

Ignoring the gender dimension in forest conservation and management is not an option. The loss of these ecosystems, or even small changes in their species composition, will have a gender-differentiated impact that could jeopardize the livelihoods of women and men around the world. This is particularly true of female-headed households, which are often among the poorest and the most vulnerable to disaster and climate change (Oxfam, 2010).

However, women are not just helpless victims of climate change, disasters, deforestation and environmental degradation. As mentioned already, and demonstrated through examples many times in this book, women are also powerful agents of change. Their leadership and involvement is therefore critical to efforts dealing with many issues, such as deforestation; conservation; sustainable forest management; sustainable energy consumption; reducing emissions; economic growth; development of scientific research; and technologies and policy making.

In times when forest ecosystems are diminishing at an unprecedented rate, forest loss becomes one of the main development issues of this millennium. Preserving, managing and improving the health of forest ecosystems worldwide will also require equitable leadership and participation from both women and men. In these critical times, therefore, international, national and local forest initiatives must address and integrate gender equality, empower women and promote the advancement of women's rights in order to achieve their sustainable development goals.

Village forest
committee
exchange
views on state
of the forest

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Shaw



As noted in the previous chapter, despite these facts, it is only in the last twenty years that policy makers have really started to acknowledge them through gender-sensitization of conventions such as UNFCCC; through the formation of groups such as GGCA; exciting new developments such as the first gender-sensitive, forest-inclusive climate change strategies; and national gender and REDD+ roadmaps that guide the design and implementation of gender-sensitive REDD+ strategies, as part of IUCN's pro-poor REDD+ project.

Particularly in the realm of climate change, the paradigm shift has started. But the implications, opportunity and considerations for gender within forestry work are much wider than that, and much remains to be done.

Incorporating gender consideration into all forest projects

The true conservation and management of forests will require a further paradigm shift where all forest work incorporates gender considerations from its initial stages. The question, then, is: What are the gender considerations in forestry work—be it in the form of projects, plans, programmes, policies or strategies?

Drawing from experience, including case studies such as those described in the earlier chapters of this book, we can elicit strong general guidelines. The following section of this article illustrates such guidelines from the perspective of planning, implementing, consolidating, monitoring and evaluating a forest project.

At the design and initial stages

From the very beginning of any project, the following elements are fundamental.

1. Recognizing women as forest stakeholders.
2. Empowering and building capacity of women and women's organizations.
3. Ensuring the inclusive and meaningful consultation and effective participation of women in design, negotiations with stakeholders and in demonstration activities (pilot projects).
4. Strongly encouraging and promoting collection of sex-disaggregated data throughout the project and the inclusion of gender analyses of use, access and control of forest resources.

During implementation

As the project is rolled out according to its design, further elements become important to include:

1. Development of safeguards to ensure women's rights to land and natural resource use.
2. Ensuring and providing for full and effective consultation and participation at all stages.
3. Providing equal access to information regarding all aspects of the project.
4. Educating men and women to enable inclusive, fair decision-making and consent.
5. Ensuring equitable distribution of benefits, and safeguarding against its violation.
6. Paying special attention to traditional inequalities that could exclude women from participating in all activities and/or having access to or control over resources.
7. Designing a gender-sensitive information system with media and information sharing

- practices that reflect women's needs.
8. Ensure that women are provided with fair and appropriate compensation, incentives, benefits and revenues generated by the projects through the design of gender sensitive benefit sharing systems.
 9. Making sure that eventual policy changes proposed by the project comply with international women's rights legislation.

Once the project is consolidated and fully underway

Following the first stage of implementation, or even in parallel, the following imperatives complete the cycle of recommendations for the forestry project.

1. Incorporate a grievance mechanism into the monitoring and evaluation system that establishes and supports legal protection of the rights of women on an equal basis with men.
2. (Continue to) involve women in all monitoring, reporting and verification (MRV) activities and provide tools and knowledge needed for women to engage.
3. Ensure that women have options to obtain all types of training and education, formal and non-formal that might be envisaged as being necessary, in order to increase their technical proficiency for engagement in MRV activities.
4. Create opportunities and capacity building for girls to be involved in all technical aspects, looking at sustaining efforts into the next and future generations.

Developing a gender-sensitive global roadmap: the example of REDD+

Figures 1-8 show¹ in graphic form how such thinking as demonstrated in the above guidelines for gender-sensitive forestry projects can be applied to a global mechanism such as REDD+. Imposing this thinking on the REDD+ model and process permits us to develop a detailed, concrete, implementation-oriented roadmap for a truly gender-sensitive framework and plan.

We can see how the basic guidelines as expressed from a project perspective are applied in more detail from the initial stage of academic research, recognizing women as key forest stakeholders and examining women's differentiated role in REDD+.

¹This roadmap is based on discussions from the Strategy Session to Develop a Roadmap for Integrating Gender in REDD+ that was organized during UNFCCC COP16 in Cancun by WOCAN, IUCN and WEDO and on bilateral discussions with CARE that occurred in Bonn during 2011.

There then follow the stages of influencing policy and advocacy and integrating the resultant gender considerations into the financial institutions; ensuring safeguards and standards that will sustain the gender sensitive model and branding it permanently into the mechanism. In the implementation stage, we see how the roadmap rolls out to produce a system that fully engages women at all stages and in each dimension of REDD+.

As Figures 1-8 show, to arrive at and accomplish each of the stages and sub-stages outlined therein, numerous challenges will arise and must be overcome. To better understand such a roadmap, as an example we can consider more closely the key stage of safeguarding and the creation of standards (Figures 6-7).

The loss of these ecosystems, or even small changes in their species composition, will have a gender-differentiated impact that could jeopardize the livelihoods of women and men around the world



Figure 1: Academic research

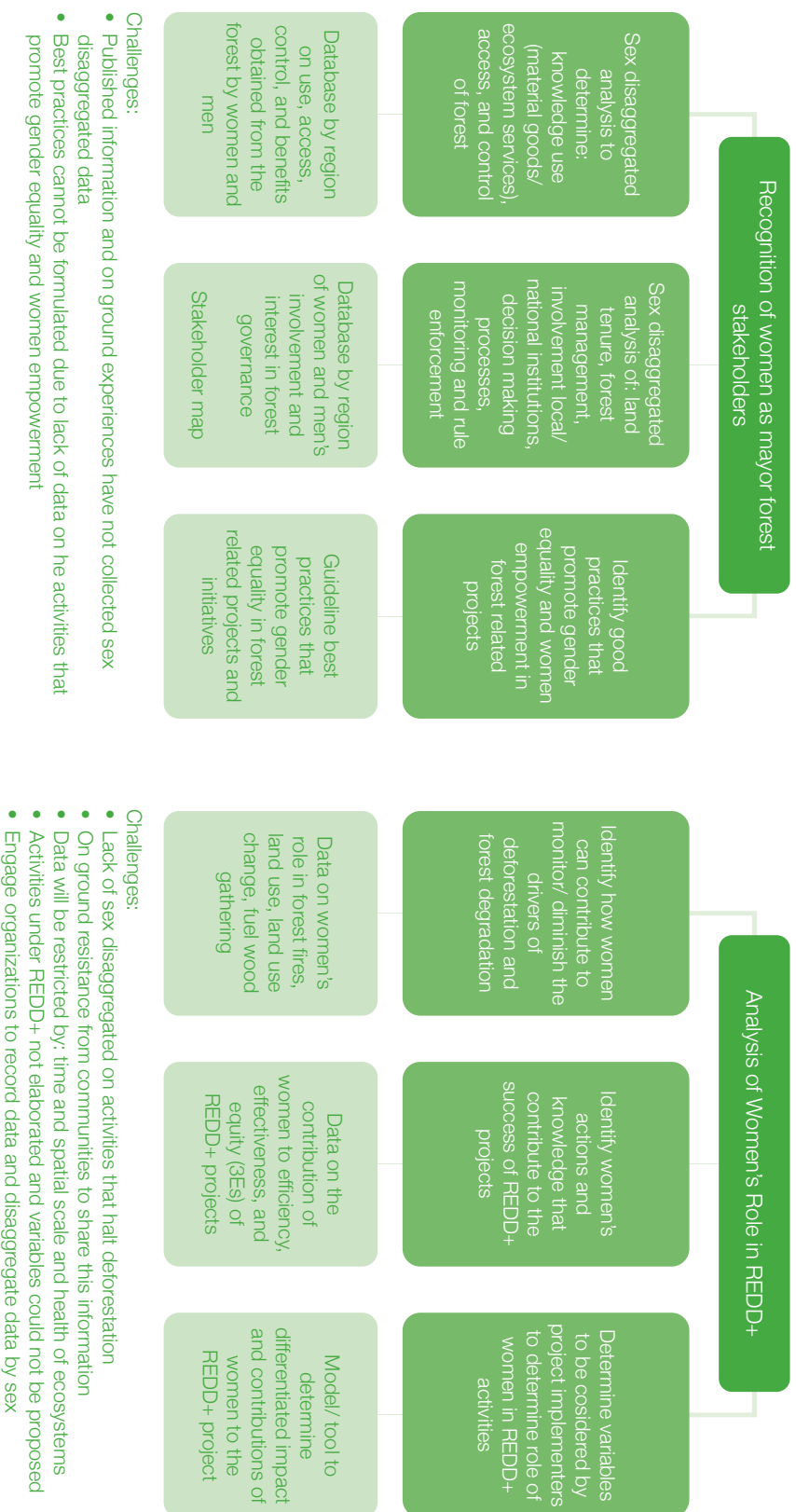
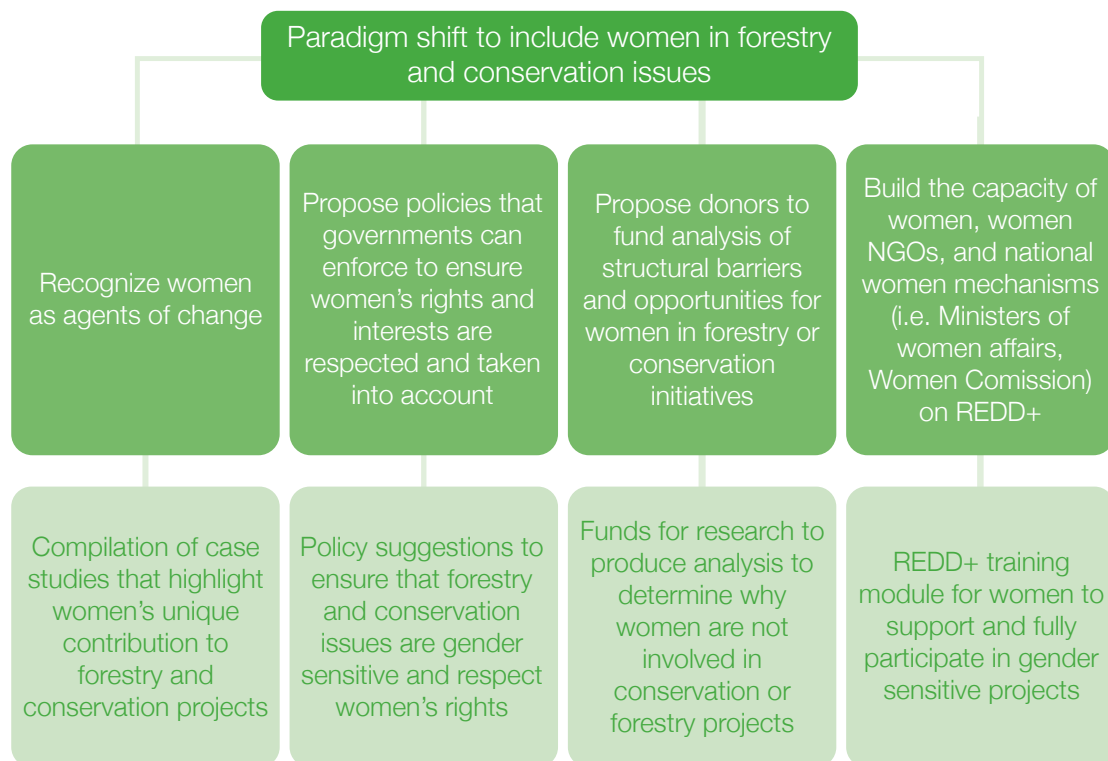




Figure 2: Influence policy/ advocacy

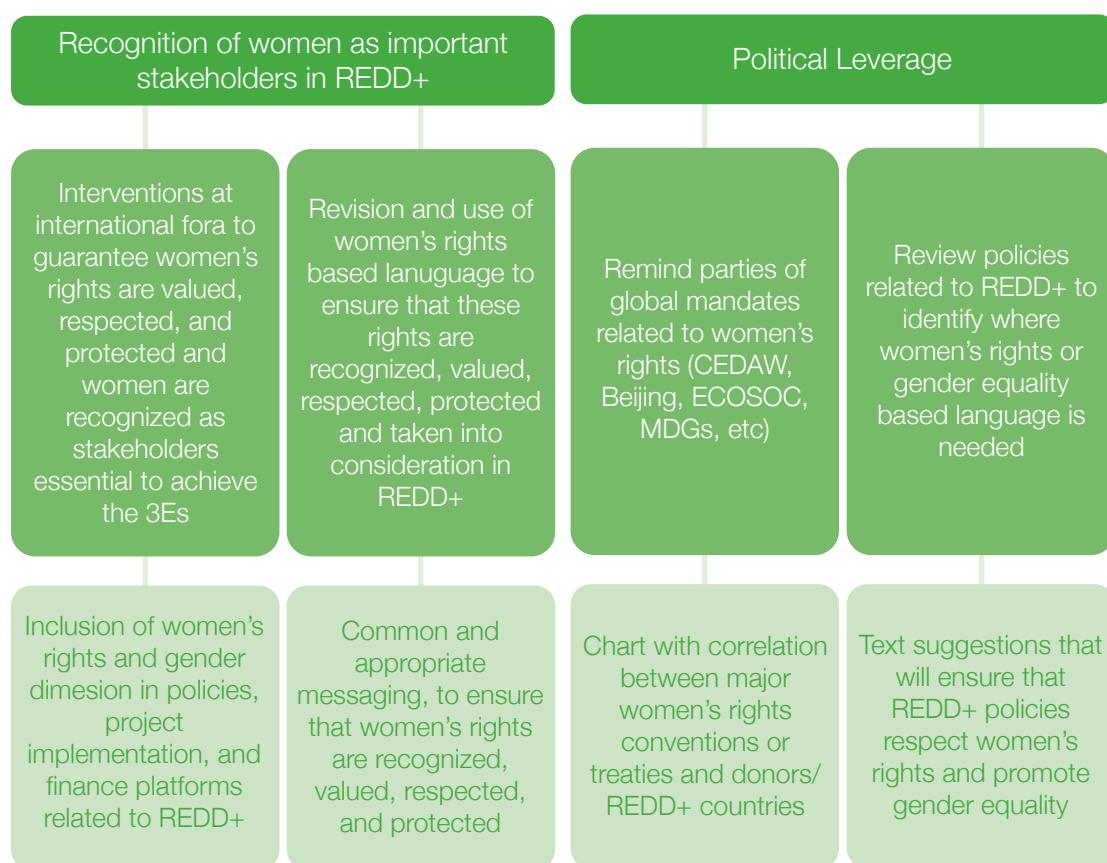


Challenges:

- Women are identified as the sole solution bearers, causing their work load and burden to increase
- Generalizations might not be appropriate due to country or regional differences in the interests and needs of women
- Donors might not consider this a priority research topic
- Training sessions will have to deal with different levels of expertise and regional differences
- Government institutions that are involved in REDD+ process might not consider gender a priority



Figure 3: Influence policy/ advocacy



Challenges:

- Advocacy organizations should deliver a common strong message
- Parties consider that women's rights are acknowledged within human rights
- Rights approach might not to be appropriate in all situations
- Projects only convinced if women are recognized as stakeholders
- Some women organizations are not supportive of REDD+ initiatives

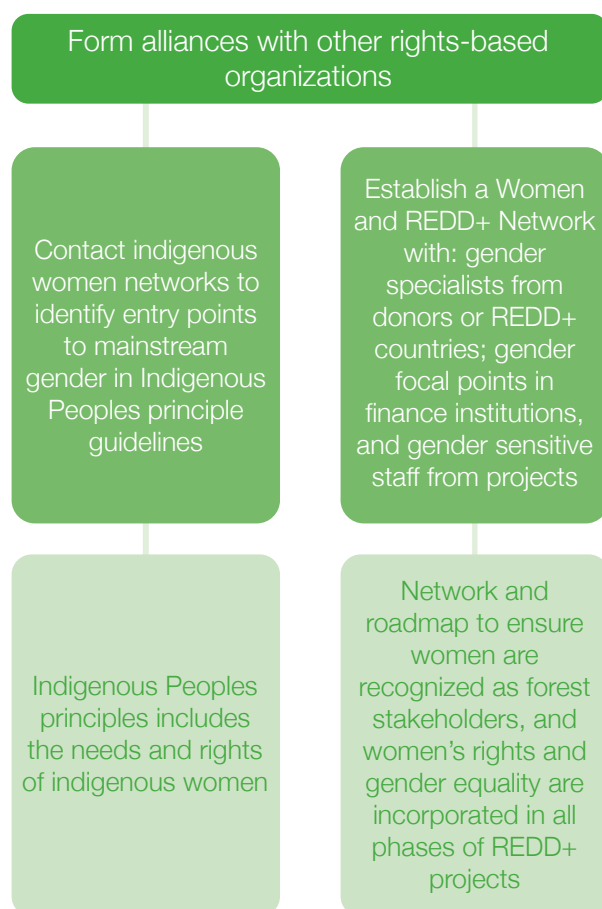
Challenges:

- Countries might argue that there do not have enough resources to comply with mandates
- Some countries consider women's rights or gender equality not relevant or not urgent
- Women mechanisms might not have expertise in REDD+

²3Es: Efficiency, effectiveness and equity



Figure 4: Influence policy/ advocacy



Challenges:

- Indigenous Peoples Caucus reluctant to undertake gender considerations
- Other right based organizations might be reluctant to join efforts because their agendas might be overwhelmed
- Turnover of gender focal points or gender sensitive staff



Figure 5: International finance institutions

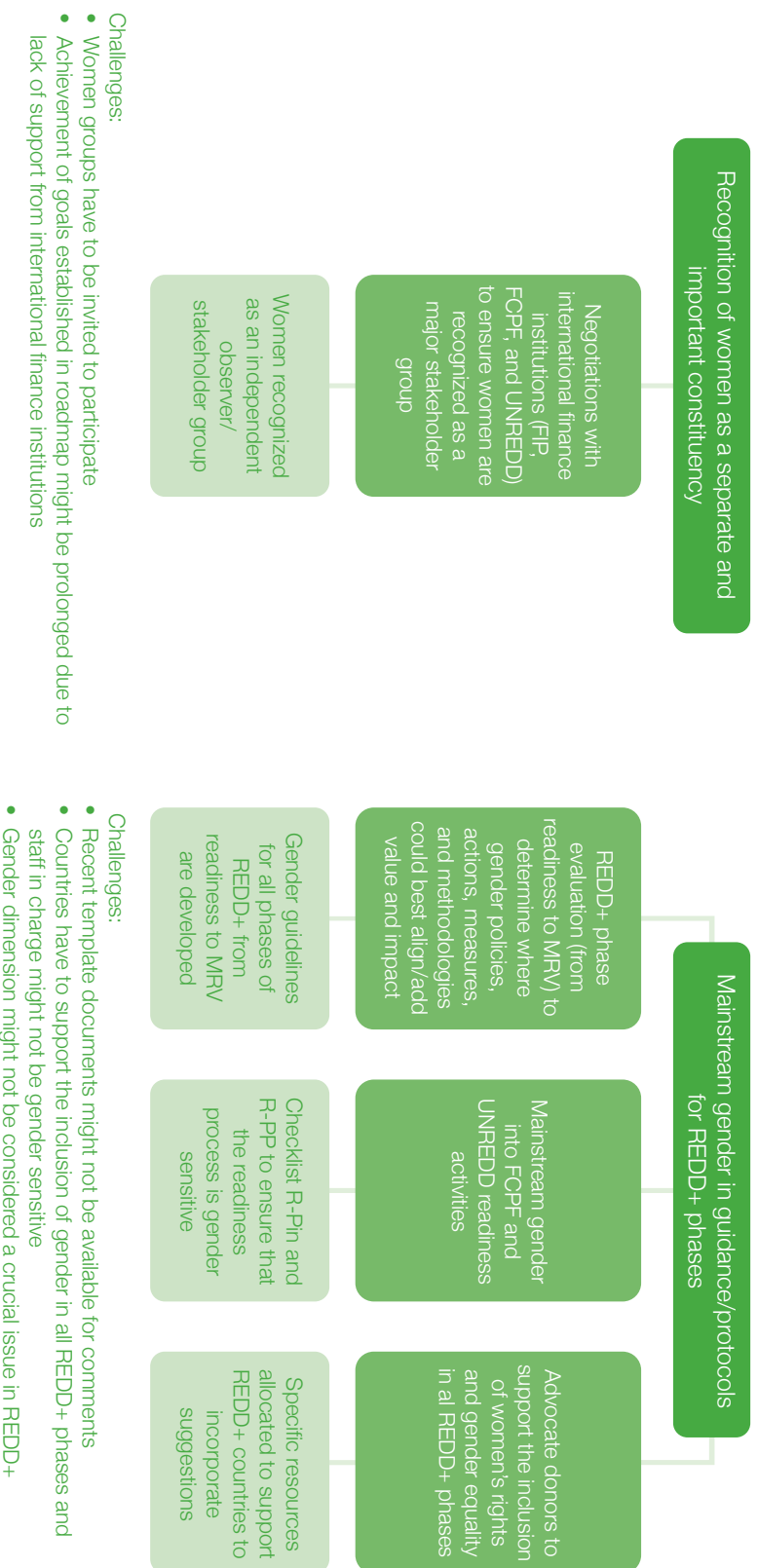
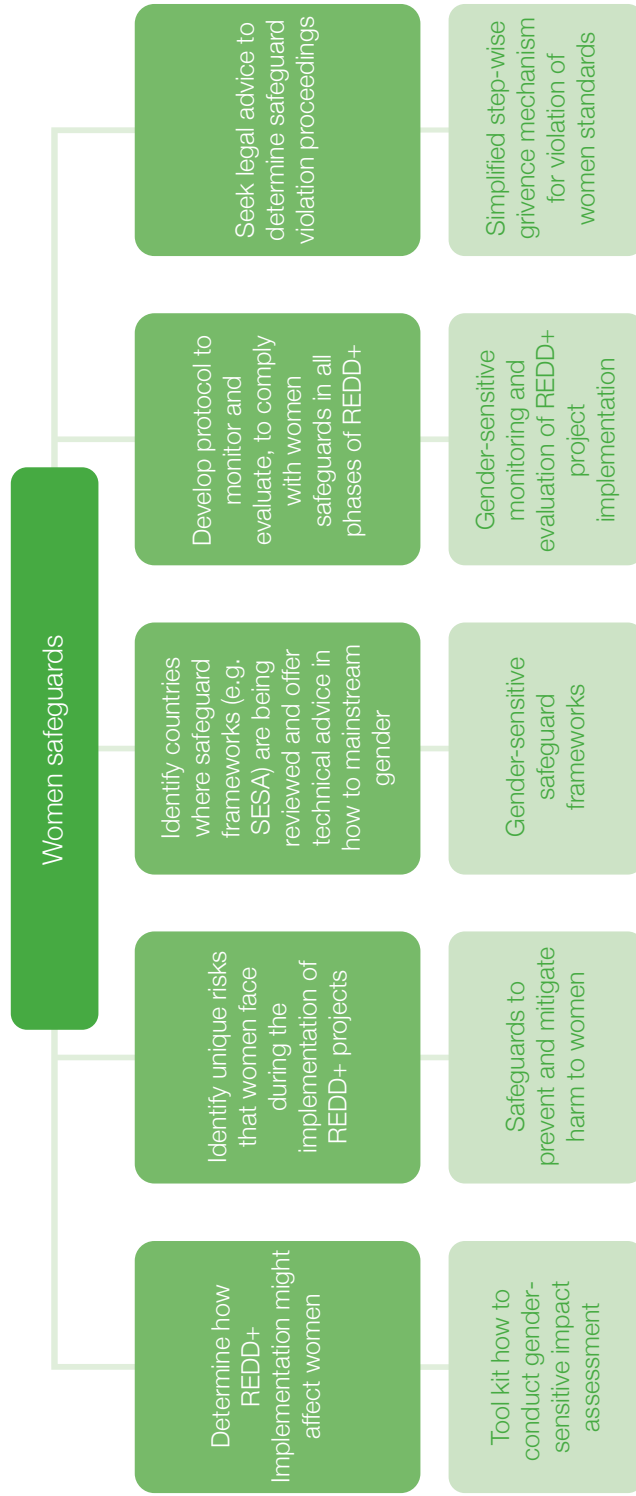




Figure 6: Safeguards and standards

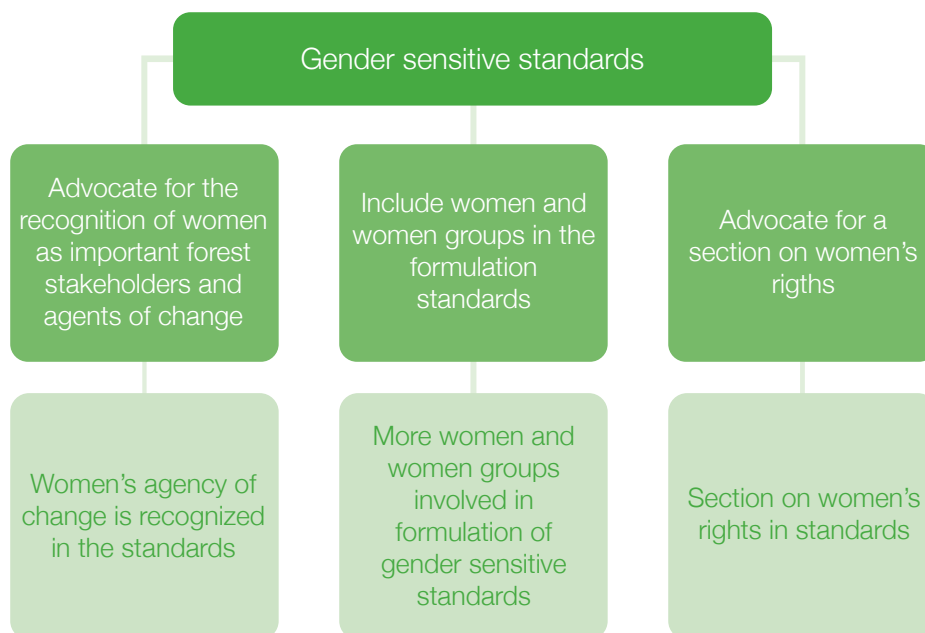


Challenges:

- Women need to be recognized as major stakeholders, and countries must support the incorporation of gender dimension in all REDD+ activities
- Generalizations might not be appropriate due to different legal proceedings in each country



Figure 7: Safeguards and standards

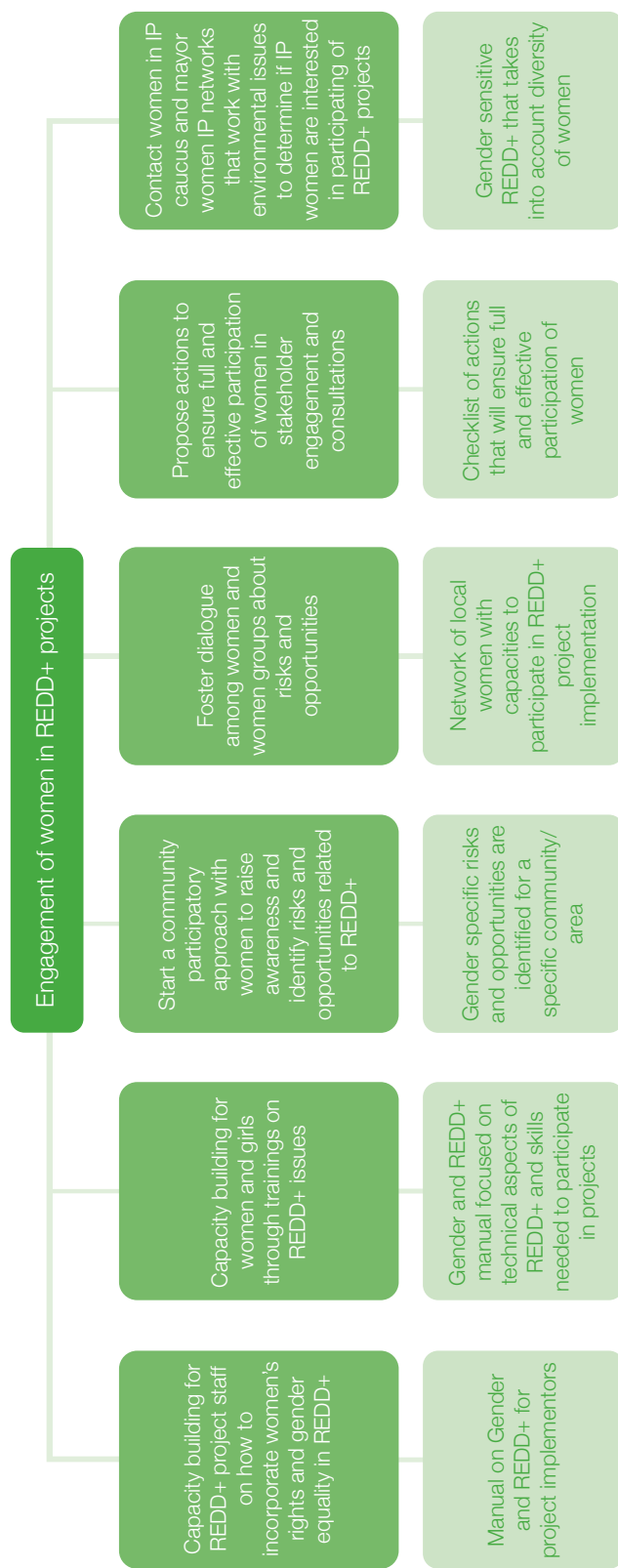


Challenges:

- Women groups might not have the initial capacity to participate effectively in the revision process
- Countries might be reluctant to add more standards or safeguards
- If women's groups are not present in the process new standards will not be included
- Require many resources to support the capacity building process and sponsor trip to meetings
- Data on women's involvement in forest management has to be available



Figure 8: Project implementation



Challenges:

- Time constraint to develop training methodology before REDD projects are implemented
- Methodology and training manual need to be developed and deliver information in an effective and appropriate fashion to women in different regions
- Technical language might confuse community members
- No women's organizations formed or women groups lack of knowledge of general climate change issues and terminology
- Stakeholder engagements might be in an advanced stage and lack of resources to carry out activities to ensure women's participation
- Some regions or countries might not have well established indigenous women's groups

Developing safeguards and standards in the gender-sensitive REDD+ roadmap³

Safeguards and information systems will not work in an already unequal society. Gender-blind implementation could jeopardize the achievement of safeguarded goals related to land and natural resource use; full and effective consultation and participation; fair access to information and education to enable decision-making and consent; and equitable distribution of benefits.

REDD+ programs—as well as governments and implementing institutions—must take into account gender considerations⁴, actively promote gender equality and the advancement of women's rights, implement gender-specific safeguards to prevent harmful outcomes and ensure effective, equitable, sustainable and just results.

Why are gender criteria important in governance and safeguards?

REDD+ mechanisms and policies must be consistent with, and not undermine, international human rights law. In The Universal Declaration of Human Rights preamble, Member States of the United Nations affirm equal rights of men and women. Furthermore, the United Nations Declaration of the Rights of Indigenous peoples (UNDRIP) insists that states pay particular attention to the rights and special needs of indigenous women when taking effective measures to ensure the improvement of economic and social conditions⁵; and in implementation of the Declaration⁶. UNDRIP proclaims that states shall take measures, in conjunction with indigenous peoples, to ensure that indigenous women enjoy the full protection and guarantees against all forms of violence and discrimination. Moreover, the Convention on the Elimination of all Forms of Discrimination⁷ Against Women (CEDAW) calls for the elimination of discrimination in all its forms by any person, organization or enterprise and contains references to women's rights to, inter alia, decision-making, access to information, participation, land and natural resources, and the right to the use, management and conservation of these resources.

CEDAW with REDD+ eyes: recommendations on safeguards and standards

Recommendations based on the CEDAW on safeguards and standards, derived from fully integrating gender considerations into REDD+, are elaborated below.

³The development of these safeguards suggestions is based on an initial document produced in collaboration between Oxfam America, IUCN, WEDO, CARE and FOE and the SUBSTA submission by WEDO.

⁴As mandated by United Nations Framework Convention on Climate Change decision UNFCCC/CP/2010/7/Add.1 decision 1/CP.16 paragraph 72.

⁵Recalling United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP) Art 21

⁶Recalling UNDRIP Art 22.1

⁷Recalling UNDRIP Art 22.2

Right to land and natural resources

Recommendation: The REDD+ Programme should ensure women's rights own or inherit land, including through individual titling or co-titling as appropriate, for all forest, agricultural, wastelands and other relevant lands. Where forest land ownership rights for women are not an option or not appropriate, then communal rights of both men and women should be ensured⁸.

Recommendation: The REDD+ Programme should encourage the implementation of all appropriate measures, including legislation, to modify or abolish existing laws, regulations, customs and practices which constitute discrimination against women's rights to land and natural resource access⁹.

Recommendation: The REDD+ Programme should encourage the implementation of all appropriate measures to eliminate discrimination against women in all matters relating to marriage and family relations, and in particular shall ensure the same rights for both spouses in respect of the ownership, acquisition, management, administration, enjoyment and disposition of property, whether free of charge or for a considered value¹⁰.

Right to access information; education to enable decision-making

Recommendation: The REDD+ Programme must ensure that women receive information and appropriate training related to all REDD+ activities. Women should have the tools and knowledge needed to engage in the identification of gender specific risks, opportunities and challenges and the assessment of technical knowledge and skills they will need to participate in all REDD+ activities. Women will require this capacity building and analysis in order to be part of decision-making processes.

Recommendation: The REDD+ Programme should take all appropriate measures to ensure that women have equal rights in the field of education and access to specific educational information to help to ensure the health and well-being of families¹¹.

Recommendation: The REDD+ Programme should ensure that rural women have options to obtain all types of training and education, formal and non-formal, in order to increase their technical proficiency¹².

⁸Recalling CEDAW Art 14.2

⁹Recalling CEDAW Art 2 (f)

¹⁰Recalling CEDAW Art 16 (h)

¹¹Recalling CEDAW Art 10

¹²Recalling CEDAW Art 14.2 (d)

Right to full and effective consultation and participation

Recommendation: Guarantee the full and effective participation of women as primary stakeholders before and during the design, planning, implementation, and monitoring and evaluation of all REDD+ activities. Define stakeholder to specifically include women.

Recommendation: The REDD+ Programme should be designed in ways that enable women's participation, taking into account their workload, schedules and social and cultural roles that often inhibit their participation¹³, and ensure they have equal and timely access to information and sufficient time for discussion on REDD+ policies, processes, risks and benefits.

Recommendation: The REDD+ Programme should ensure the participation of women in the elaboration and implementation of development planning at all levels¹⁴ and in all community activities¹⁵.

Criterion: The REDD+ Programme should take all appropriate measures to ensure women participate in the formulation of government policy and the implementation thereof¹⁶ and in non-governmental organizations and associations concerned with the project¹⁷.

Right to fair and equitable distribution of benefits

Recommendation: Ensure that women—both on their own and as members of indigenous and forest-dependent communities—are provided with fair and appropriate compensation, incentives, benefits and revenues generated by REDD+ activities. A gender sensitive, transparent and participatory process for revenue distribution should be established.

Recommendation: The REDD+ Programme shall take all appropriate measures, including legislation, to ensure the full development and advancement of women in economic fields, for the purpose of guaranteeing them the exercise and enjoyment of human rights and fundamental freedoms on a basis of equality with men¹⁸.

Criterion: The REDD+ Programme should support women's access to agricultural credit and loans, marketing facilities, appropriate technology and equal treatment in land and agrarian reform, as well as in land resettlement schemes¹⁹.

¹³Based on CEDAW Art 15

¹⁴Recalling CEDAW Art 14.2 (a)

¹⁵Recalling CEDAW Art 14.2 (f)

¹⁶Recalling CEDAW Art 7 (b)

¹⁷Based on CEDAW Art 7 (c)

¹⁸Recalling CEDAW Art 3

¹⁹Recalling CEDAW Art 14.2 (g)

Criterion: The REDD+ Programme should support options to organize self-help groups and co-operatives in order to obtain equal access to economic opportunities through employment or self-employment²⁰.

Wrapping up

In this book, we have considered the issue of gender within forest management and conservation, looking at how far we have come, current challenges, and some mapping out of the road ahead. We started by looking at main themes and cross-cutting issues, and then travelled to national and local levels to learn more about concrete practices and case studies from around the globe. Building on the growing global body of research and experience, we outlined essential elements of what gender-sensitive forestry should look like. Finally, we explored exciting new global initiatives such as the innovative development of national gender strategies by IUCN's Gender Office and WEDO and the nascent roadmap fully integrating gender into REDD+. The guidelines extolled in this final chapter are by no means prescribing a one size fits all, blueprint approach, but—as the national gender strategies clearly demonstrate—constitute flexible frameworks which by their very nature are responsive to the complex contexts within which they are devised and to be applied.

We have come a long way, with much remaining to be done; and yet the momentum is there. As the paradigm shift extends its influence through the efforts of institutions such as IUCN, WEDO and GGCA—and their global, regional, national and local partners—it is not unreasonable to hope for a time when gender and forest management is much more fully integrated. Until then, all relevant actors should pursue it with urgency, since disregarding gender will ultimately impede all our efforts to consolidate the role of forests in reducing poverty, conserving biodiversity and achieving sustainable development.

**We have
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with much
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to be done;
and yet the
momentum
is there**

²⁰Recalling CEDAW Art 14.2 (e)

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