

Gender, Forests and Climate Change

Gender and Diversity Division

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Forest cover in Latin America and the Caribbean constitutes approximately 45% of the total land area. The forest is a source of income and subsistence for 85 million people in the region who live in forested areas, and particularly for the 8 million people who subsist on less than \$1.25 per day. Moreover, forests provide hydrological and thermal regulation, climate regulation, soil protection and regeneration, and habitat for two-thirds of terrestrial biodiversity, and are key players in the carbon cycle.

As users of forest products and guardians of traditional knowledge, women have always been involved in forestry. Nevertheless, their access to forest resources and benefits and participation in forest management is limited compared to men's despite the fact that trees are more important to women, who depend on them for their families' food security, income generation and cooking fuel. ^{2, 3}

Forests play an important role in mitigating climate change. On one hand, they can reduce the greenhouse effect by absorbing atmospheric CO2 and storing it in biomass and soil. On the other hand, they become sources of CO2 emissions when they are felled and biodegrade, releasing the stored carbon. Emissions from the agricultural and forestry sector account for almost a quarter of total global anthropogenic emissions⁴ and 47% in the Latin American region.⁵

To tackle this situation, in December 2007 the United Nations formed the REDD+ mechanism. REDD+ stands for countries' efforts to reduce emissions from deforestation and forest degradation. REDD+ fosters conservation, sustainable forest management and forest carbon stock enhancement as part of efforts to mitigate climate change.

[.] FAO. 2018. The State of the World's Forests. Forest pathways to sustainable development. Rome.

^{2.} FAO. 2013. Towards food security and improved nutrition: increasing the contribution of forests and trees. Rome.

Suderland, T. et al. 2013. Food Security and Nutrition: The role of rest. CIFOR.

IPCC. 2019. IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems.

^{5.} IPCC. 2014. AR5, Climate Change 2014: Synthesis Report.

Although the primary objective of REDD+ is to reduce carbon emissions from forests, it can also contribute to and improve quality of life and wellbeing for forest inhabitants, including women.

The REDD+ safeguards, approved as part of the Cancun Agreements⁶, urge Parties to "respect gender considerations" in their implementation. All contextual framing of REDD+ recognizes the importance of gender equality and women's inclusion in decision making. The COP 16 report says that "gender equality and the effective participation of women and indigenous peoples are important for effective action on all aspects of climate change"⁷. By the same token, the Paris Agreement and Sustainable Development Goal (SDG) 5 promote gender equality and women's empowerment.⁸



Source: Cooperativa Selva Viva. Quintana Roo, Mexico

Nevertheless, critical voces exist that ensure REDD+ excludes women in the decision-making process during program and project design. Multiple studies show^{9, 10} how many REDD+ programs have a negative impact on gender equity in communities by not taking women's needs and knowledge into account.

Women's participation in REDD+ initiatives is reduced, including in those cases where they use forests as much as or more than the men¹¹. According to a study by the Center for International Forestry Research (CIFOR), conducted at 62 villages participating in 16 REDD+ initiatives in six countries, women were less involved than men in decisions and processes related to REDD+ initiative design, and when they were involved, it was in a superficial manner. Moreover, women are less informed about REDD+ or similar initiatives than men in the same communities. Three years after the study, the women in those communities were asked about their perceived wellbeing arising from REDD+ implementation¹². The results showed that they felt their wellbeing had worsened, principally because they had not generated income as easily as they had expected.

Women's marginalization is not a problem with the REDD+ mechanism, which includes safeguards within a theoretical framework that promotes gender equality. The difficulty arises in the design and implementation of those specific strategies and projects that, for lack of knowledge, fail to identify traditional barriers that women face and to incorporate a gender perspective.

^{6.} The Cancun Agreements are the outcome of the 16th session of the Conference of the Parties (COP). COP is the supreme decision-making body of the UN Framework Convention on Climate Change. All States that are Parties to the Convention are represented at the COP, which meets annually to review the implementation of the Convention and any other legal instruments that the COP adopts and take decisions necessary to promote the effective implementation of the Convention. COP 16 took place in Cancun, Mexico in 2010. At COP 17, which took place in Durban, South Africa, the Parties agreed to enhanced gender safeguards.

^{7.} Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Decision 1/CP.16. The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention.

^{8.} UN Framework Convention on Climate Change. 2016. Paris Agreement. Articles 7 and 11.

^{9.} Larson, A. et al. 2015. The role of women in early REDD+ implementation: lessons for future engagement. International Forestry Review. Vol 17 (1).

Larson, A. et al. 2018. Gender lessons for climate initiatives: A comparative study of REDD+ impacts on subjective wellbeing. World Development 108. Pages 86-102.

^{11.} Larson, A. et al. 2015. The role of women in early REDD+ implementation: lessons for future engagement. International Forestry Review. Vol 17 (1).

^{12.} Larson, A. et al. 2018. Gender lessons for climate initiatives: A comparative study of REDD+ impacts on subjective wellbeing. World Development 108. Pages 86-102.

According to a World Bank study conducted in Mexico¹³, the barriers to women's participation to REDD+ activities and other forest resource management programs can be structural and behavioral:

Structural barriers are generally understood and are set by political institutions, legal frameworks and economic systems. They include: limited infrastructure that requires multiple hours or days of travel to reach an office where one can present the necessary documentation for REDD+ eligibility; complex and costly application processes; lack of an integral gender perspective in REDD+; limited land tenure for women; absence of representation in decision-making forums; poverty traps for women and woman-headed households (poorer shelter, salary gap, double time burden of work in households and in jobs, different use of natural resources, etc.) and educational disadvantage.

Behavioral barriers are revealed by behavioral science diagnostics and exacerbate the above structural barriers. They include: time scarcity arising from the double burden of work; financial scarcity that inhibits satisfaction of basic needs; and aspiration scarcity arising from gender norms that fix women's social identities around their households and children.

Ignoring women in REDD+ can reduce program or project effectiveness by 1) producing a negative impact on women's and their families' ways of life; 2) marginalizing women's specific and necessary knowledge; 3) augmenting the gender gap in forest communities and the forestry sector; 4) strengthening inequalities in land access and control and in participation and influence in decision making; and 5) worsening relations between men and women, particularly when social and economic benefits are not equally distributed among community members.¹⁴ Nevertheless, if a gender lens is correctly implemented, it can be a change catalyst in other sectors, improving forest resource sustainability and conflict management.

This guide aims to facilitate the incorporation of a gender lens in climate change mitigation and adaptation operations in forests, with special attention to those framed in REDD+. The guide centers on the two primary phases of REDD+ – preparation and implementation – that inform payment design for results that must be demonstrated in the third phase (see Table 1). The IDB Group promotes women's participation and empowerment in the design and implementation of national REDD+ strategies in Guatemala, Peru and Guyana (see Table 2). It further assures the integration of gender action plans in the diverse projects financed in the implementation phase (Phase 2).

This guide addresses four themes - value chains, environmental payment schemes, firewood and biodiversity - that relate directly to 1) how climate change impacts affect women in the forest and 2) how mitigation and adaptation measures affect women's access to resources and benefits distribution.

^{14.} GGCA. 2016. Gender and Climate Change. Gender and REDD+. Policy brief.

BOX 1 REDD+ Phases

REDD+ IS IMPLEMENTED IN THREE PHASES:



Development of national strategies or action plans, policies and measures, and capacity-building that fix the REDD+ framework in the country. Establishment of a national forest emissions baseline, a forest monitoring system and an information system for safeguards and project registration, among other topics.



Implementation and testing of national policies and measures and national strategies or action plans developed in Phase 1 that could involve further capacity-building, technology development and transfer, and results-based demonstration activities.



Results-based actions that should be fully measured, reported and verified. Countries can certify emissions reductions and sell them to the Carbon Fund. This phase produces economic compensation for demonstrable emissions reductions, deforestation and forest degradation prevention or forest cover expansion. Results are measured against baselines that were established in Phase 1.

Source: United Nations Framework Convention on Climate Change (UNFCCC) 15

With a gender equality focus that recognizes both women's and men's circumstances and needs, this guide 1) identifies as part of the diagnostic the possible challenges and opportunities for gender equality and highlights risks and possible negative impacts of gender equity operations; 2) offers examples of programs that have taken gender differences

and risks into account; and 3) proposes recommendations and suggests measures and actions for overcoming, preventing and mitigating the challenges and harnessing the opportunities. The guide also shows examples of indicators for monitoring and evaluating forestry sector operations.

BOX 2

The IDB's gender commitment with REDD+ in Guatemala

In Guatemala, 40% of the 4,000 people who participated in the National REDD+ Strategy are women. Here are some of the activities the IDB undertook within this strategy that favored women's participation and empowerment:

- 1. Design and implementation of the REDD+ Gender Path, which includes strategic actions and monitoring indicators for incorporating gender considerations in the three REDD+ phases.
- 2. Design of the national REDD+ monitoring, reporting and verification system, which incorporates i) monitoring of all REDD+ Gender Path indicators; ii) monitoring of co-benefits, which includes gender indicators; iii) monitoring of the grievance mechanism¹⁶ with disaggregated information by sex of each complaint and iv) a mobile community forest monitoring app that includes disaggregated indicators by sex.
- 3. Design of projects under the Forest Investment Program (FIP) that include gender goals in REDD+ implementation activities, with the intention of assuring women's access to i) national forestry incentive programs and logging licenses (at least 35% of total recipients must be women); ii) technical assistance for market-oriented forest management, entrepreneurism and timber and non-timber product processing (at least 50% of total beneficiaries must be women) and iii) private banking credits (at least 30% of total recipients must be women).
- 4. Support from the Organized Beneficiaries Network of the Smallholder Forestry Incentives Program (PINPEP by its Spanish acronym) with operational procedures development of its joint directive, specifying that 30% of its officials be women.
- 5. Support to around 10 community forestry organizations with monitoring and reporting methodologies that incorporate gender considerations.



The primary deforestation driver is the conversion of forests into farmland and ranch land to obtain better economic returns. Therefore, strengthening sustainable forestry activities among local populations is indispensable to halting this type of deforestation. Consolidation and market

Women's and men's participation in agroforestry value chains is unequal in all of Latin America. For example, only 26% of the farms in the cacao value chain in Honduras are woman-owned.¹⁷ Meanwhile, there are 168

coffee cooperatives in Guatemala comprising 43,216 producers, of whom only 34% are womens.¹⁸



This unequal presence is due to factors such as disparate access to forest resources, women's limited land tenure, prevailing sociocultural norms or difficulty accessing transportation or working far from the home.

^{17.} González, Victor. 2016. Cacao in Honduran agroforestry systems: perceptions of male and female producers. Honduran Foundation of Agricultural Research and ETEA Foundation.

^{18.} Escobedo, Adriana. 2018. The Coffee Value Chain in Guatemala. CATIE

Following are some of the barriers women encounter to accessing agroforestry value chains:

Disparities in forest use

Forest resource use is differentiated by gender. In general, men control wood production and commercialization, while women make use of products that are usually less profitable, such as fruits and nuts, vegetables, firewood and fodder¹⁹.

Income disparities

The value chains in which women work generally produce less revenue than those in which men work. For example, men compose the majority of the timber value chain, which generates the greatest benefits. Even when they work in the same value chains, women earn less, whether because they work in the part of the value chain where earnings are lower or because they are paid less despite doing the same work as the men.²⁰ Additionally, women work in informal markets – where incomes are lower – more often than men. Finally, men tend to sell higher product volumes than women, for which they receive higher revenues.

Land ownership and access to resources

The majority of land in Latin America belongs to men. Women thus depend on the priorities men establish over forest resource use, which limits their income generation capacity.

Limited access to credit

No market exists for credit products adapted to the type of forestry work women do. Compounding this, women do not own property that serves as collateral for credit access, nor are they well informed about how the financial sector functions.

Unrecognized labor in value chains

Gender division of work in value chains is largely unrecognized within the forestry sector, which translates into insufficient support from public policy makers and service providers.

Reduced access to transportation

Women have reduced access to transportation, which frequently limits their market access to the local area. The high cost of public transportation, difficulty obtaining their own vehicles for lack of resources, physical insecurity for women on the highway and, sometimes, an inability to drive are some of the issues that limit women's access to markets outside of their communities.

Sociocultural norms

Cultural norms and customs influence the division of labor in value chains between participants' domestic and economic activities.

^{19.} Beaujon Marin, Amanda and Kuriakose, Anne. 2017. Gender and Sustainable Forest Management: Entry Points for Design and Implementation.

^{20.} Carol, J. Pierce Colfer et al. 2016. Gender and Forests: Climate Change, Tenure, Value Chains and Emerging Issues. CIFOR.

Moreover, legal and traditional norms overlap, with the latter predominating in many places. For example, in some communities people think the forest is unsafe for women and that only men should work there.

Training access

Women have difficulty accessing technical and business training, owing to their time constraints arising from their domestic obligations and the negative view their activities may evoke in their partners.

Distance to work sites

Women participate in value chains while simultaneously attending to their domestic duties, and thus cannot absent themselves for extended periods. The further away the harvest or production site is, the more difficult it is for a woman to participate.

The forest value chain includes all activities necessary for bringing a product from its source to the end user. This includes the following phases: planting, harvesting, transportation, processing and manufacturing, packaging, and marketing and commercialization.



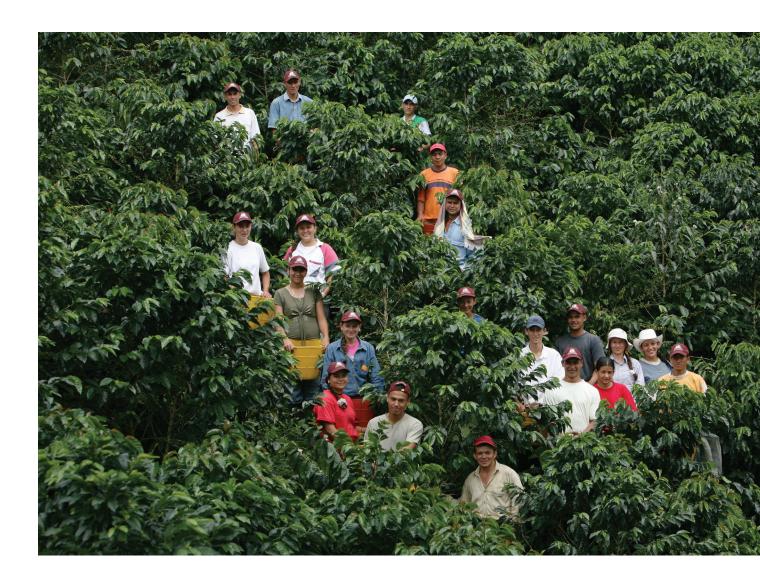
Source: Cooperativa Selva Viva. Quintana Roo. Mexico

As mentioned previously, men tend to dominate the timber value chain, which generates the most business and brings the greatest economic benefits. In the forest, they work in felling and logging timber while women dedicate themselves to feeding the workers, generally with no pay. In the sawmill, men also do the majority of the work, though women can be found in management and administration.

Women are most present in horticulture and the production of artisanal forest product handicrafts. Both activities can be realized without long commutes and can even be done in the home. Plant nurseries can be established on cooperatives properties, communal land or on private houses' patios, similarly to artisanal activities. In non-timber value chains, men's and women's workforce participation depends on the type of product in question. For example,

in the Tres Garantías farming cooperative in Chetumal (Mexico), women from the Selva Viva cooperative harvest breadnut (Brosimum alicastrum) leaves and fruit to make tea and flour. Women perform every step in the value chain, including collection, storage, processing, packaging and commercialization.

In the Brazil nut (Bertholletia excelsa) value chain, men primarily do the nut harvesting and cracking, transportation of barrels laden with seeds and shells, and storage. Women primarily harvest the nuts, peeling them with the help of small manual devices. Both men and women participate in the commercialization process.



RECOMMENDATIONS

Incentivize women's participation in forestry decision making through goal setting or inclusion of gender focal points in forestry committees, along with water committees and other decisive bodies in the forest.

Create or expand credit programs specific to women, which adapt to their needs and include, for example, reduced interest rates, credit connected to savings and training schemes, longer repayment periods or credit for access to equipment and infrastructure programs.

Provide training programs



Create training programs that reflect women's particular needs and facilitate their participation: select sites that women can reach easily, provide childcare and use the women's customary language.

Create trainings in areas where women have more difficulty incorporating themselves into the value chain, such as technical instruction on harvesting and processing of a given product, negotiation, business management, marketing, commercialization, and so on.

Create trainings in management and leadership areas that permit women to participate effectively in decision-making spaces.

Create gender trainings within communities to raise awareness of the barriers that women face, how to overcome them and the advantages to communities and households of including women in value chains.

Facilitate experiential interchange between communities to learn about success cases of women's participation in value chains.

Promote agroforestry value chains. These value chains are good alternative economic products for women and generate short-term income and contribute to forest landscape restoration while reducing pressure on forests.

Identify forestry value chains that can secure gender certifications. These certifications buttress projects that create social and economic benefits for the women who participate in them or where the business property belongs to women. Certifications include W+ standard, Con Manos de Mujer (With Women's Hands) and Women Owned. These labels contribute on the one hand to establishing productive systems based on gender equality and, on the other hand, help consumers who care about women's economic empowerment to find products that promote the same in the manufacturing phase.

Promote different businesses, such as forest tourism, in which women can be more involved.

Support the organization of women producers and processors in groups such as cooperatives, associations, companies, etc., to bring them closer to market and achieve better organization and business training.

Introduce technological changes that reduce harvesting and processing time in various value chains, so as to augment women's participation in certain activities and make optimal use of their time away from home.

Facilitate the transition from the informal sector to the formal sector for women who work in different stages of production chains. For example, women's cooperatives could be formed that support and facilitate such formalization.

Facilitate childcare along each step of the value chain so that women can work.



BOX 3

Women in the timber value chain in Chetumal



In the sawmill at the Caboa farming cooperative in Chetumal (Mexico), a woman has occupied the secretarial role for seven years. Since women were incorporated in the farming cooperative's management, they have brought about important changes and increased the sawmill's productivity while involving women in the value chain.

One of the first measures the secretariat adopted was a rule increasing and reducing accidents in the sawmill. The rule included norms such as a prohibition on alcoholic beverage consumption in the workspace and requirements to wear proper clothing – including a helmet and goggles – and to arrive punctually at work.





The sawmill includes a plant nursery, which women maintain and is used to replant forest zones that are logged every year. The cooperative also has a carpentry shop built by and for women, which repurposes wood scraps to build apiculture boxes, for which they have noted a significant demand in the marketplace and no other purveyors of certified wood boxes.

ENVIRONMENTAL <u>Paymen</u>t schemes

Source: Chopanch "orti" Commonwealth, Guatemala

Environmental payment schemes improve forest management by paying forest communities and inhabitants for putting initiatives into place that conserve forests, reduce emissions associated with deforestation and forest degradation, and increase carbon reserves.

These payments fall into several distinct categories:

- 1. Payments for environmental services incentives for land users offer ongoing environmental benefits to society and can be offered for the public or private sectors.
- **2.** Forestry incentives such as those offered to Guatemalan workers to promote tree planting and natural forest management on smallholdings²¹.
- **3.** Payments for results such as compensation for emissions reductions derived from implementing REDD+ actions and

demonstrated by measurement, reporting and verification.

Environmental services payment schemes, like conditional transfers, are predicated on the assumption that direct conditional incentives are the best means by which to modify behavior²². Although the two mechanisms feature distinct designs, lessons learned from conditional transfers can be successfully applied to environmental payment schemes. For example, multiple studies show that the use of conditional transfers improves women's economic and social empowerment. Transfers improve their negotiating power within the home and thus their control over critical aspects of their lives and those of their families, such as their children's health and education, their own health, their choice whether to work outside the home, family planning and household expenses²³.

^{21.} Guatemalan Government. 2010. Forest Incentives Law for forestry and agroforestry smallholders. PINPED.

^{22.} Porras, Ina et al. 2018. Ecosystems, poverty alleviation and conditional transfers. International Institute for Environment and Development.

^{23.} Alemann, Clara et al. 2016. "Do conditional monetary transfers increase women's participation in decision making?: Evidence from the Programa Bono 10,000 in Honduras." Technical Note no. 981. Washington, DC, USA: Inter-American Development Bank.

Women view forestry payment schemes favorably. In a study of 66 communities with 16 REDD+ initiatives in Brazil, Cameroon, Indonesia, Peru, Tanzania and Vietnam, women's focus groups had a positive view (73%) of environmental services payments because those help them to generate their own income, with allows them to make decisions. Revenue generation was the most important criterion for women in determining wither their wellbeing had improved during REDD+ initiative implementation²⁴.

Nevertheless, women are not accessing forestry payments to the same degree as men for a variety of reasons. One eligibility criterion for most forestry payments is ownership of the land that produces the ecosystem service. Even though the bulk of Latin American countries do not know the real proportion of female landownership, it is estimated at 8% in Guatemala and 30% in Peru²⁵, highlighting the reality that women will not be major beneficiaries of environmental payments. For example, there are 4.2 million members of farming cooperatives and communities in Mexico. Only 19.8% of them are women, most of whom gained access to land via rights transfer or family inheritance. Moreover, in general, their parcels are smaller than those of men (2.8 hectares vs. 5-10 hectares) and they tend to have lower productive potential²⁶.

Even in cases where land is in the name of both members of a married couple, it can still happen that one of them acts without the other's authorization and signs a contract individually for forest activities payments, in which case only that individual receives the benefits.

Another impediment women face to receiving payment scheme benefits is their underparticipation in the schemes' design, which limits the inclusion of gender considerations that could impose a negative impact on women and affect gender equity in the community. In a review of more than 200 environmental service payment projects, fewer than 5% dealt with gender issues²⁷. Similar data emerge in the 16 REDD+ initiatives, where women's participation was found to be reduced in the entire process, including in those cases where they use forests as much as or more than men²⁸.

Throughout the payment scheme design, it is important to examine whether the payment benefits the recipients, as it is not just the quantity of the payment that matters, but also what the recipient has to do to be eligible for the program.



Source: Chopanch "orti" Commonwealth, Guatemala

^{24.} Larson, A. et al. 2018. Gender lessons for climate initiatives: A comparative study of REDD+ impacts on subjective wellbeing. World Development 108. Pages 86-102...

Arancha Guereña. 2016. Exiled: Land, Power and Inequality in Latin America. Oxfam.

^{26.} Aguilar, L., & Castañeda, I. (2014.) Gender Action Plan for REDD+ Mexico, PAGeREDD+. Global Gender Office, International Union for Conservation of Nature (IUCN). US Agency for International Development (USAID). Mexico.

^{27.} Ravnborg, H. 2007. Payments for ecosystem services: Issues and pro-poor opportunities for development assistance. DIIS Report 2007:6. Copenhagen, Denmark: Danish Institute for International Studies.

^{28.} Larson, A. et al. 2015. The role of women in early REDD+ implementation: lessons for future engagement. International Forestry Review. Vol 17 (1).

For instance, some of the activities women typically pursue in the forest may be prohibited by the program, such as the collection of firewood or certain plants and seeds. Sometimes, they do not receive the payment and still must cease collection.



and management of forestry payment schemes not only improves gender equality within a community, but also increases the project's effectiveness.

In an experiment conducted in 31 forest-adjacent, collectively managed towns in Indonesia, Peru and Tanzania, 55 groups of eight people each were offered an environmental service payment. Those groups upon which a gender quota was imposed and at least half of the participants were women conserved a greater proportion of forest and split the payments more fairly²⁹.

RECOMMENDATIONS

Facilitate affected women's participation in decision making in the design of payment schemes during the three REDD+ phases, thereby assuring that their points of view on forest use are incorporated. Additionally, interventions that are designed by local people and based on their perceptions of equality are more easily adaptable to specific realities of the area, and will thus be more legitimate.

Promote women's equal participation in payment systems management via gender goals or affirmative action.

Include gender indicators in monitoring and evaluation. Women must participate in project baseline establishment, along with monitoring and evaluation of the same. Women should be trained for this role.

Evaluate distinct property ownership criteria for payment eligibility, especially as would promote women's representation. For example, in Guatemala, the National Forests Institute expanded the beneficiary criteria for its PROBOSQUE and PINPEP forestry incentive programs beyond private land tenancy. Individual owners, associations, communities and communal cooperatives can also be beneficiaries. In this way, those women who live with their families on a tract of land but do not hold the property title can present a municipal possession certificate that shows the years they have lived on the land, thereby gaining eligibility to forest incentives.

Create different compensation models that allow economic benefits distribution to the entire family associated with the land, rather than just the titulary who appears on the property registration.

Use alternative payment systems. Take advantage of payments to promote financial inclusion strategies among women. Keeping in mind that women have difficulty commuting to receive payments to which they are entitled, use alternative payment systems that ensure secure and direct payments to women via mobile phone³⁰.

Provide financial training on accessing financial services associated with payments so that women can invest, save and spend their money more productively.

Evaluate lessons learned in environmental payment programs and traditional conditional transfers such as, for example, those related to payment timing. Frequent payments can help to smooth consumption and allow expenditure planning, while less frequent, higher-value payments at key moments can trigger critical investment³¹.

Joint property. If the property title is in both the man's and woman's name, ensure that both are present at environmental payment contract signing and inform them of the implications and economic compensation that come with the contract.

Communal property. In cases of communal property, assure that women also receive part of the economic compensation for use of communal land and inform all proprietors of their rights.

^{30.} Kristjanson, Patricia et al. 2019. Taking Action on Gender Gaps in Forest Landscapes. Profor.

^{31.} Bastagli, Francesca. 2016. Cash transfers: what does the evidence say? A rigorous review of programme impact and of the role of design and implementation features. London. ODI.Kristjanson, Patricia et al. 2019. Taking Action on Gender Gaps in Forest Landscapes. Profor.

.......

Inclusive documentation. All documentation related to payments that requires landholders' names should feature two lines, so that there is space to include both the man and woman's names.

BOX 4

Environmental services payment and conditional transfer hybrids



Bolsa Verde (Green Purse) is a complimentary program to the well known Bolsa Familia (Family Purse) in Brazil. It offers a hybrid of conditional transfers and environmental payments services³² in which 91% of the beneficiaries are women over 40³³.

Bolsa Verde is a combination of direct cash compensation and community investments in revenue-generating activities, social empowerment, and social capacity and infrastructure development. The program successfully combines multiple public and private sector financial streams to effectuate transfers at the household and community level to conserve forests and improve people's wellbeing in the sustainable development reserves. The program sends a trimonthly money transfer to families living in extreme poverty who live in natural reserves and national forests and who develop sustainable natural resource use activities³⁴.



^{32.} Porras, Ina et al. 2018. Ecosystems, poverty alleviation and conditional transfers. Guidance for practitioners. International Institute for Environment and Development, London.

^{33.} Bueno de Andrade, Roseli. 2018. Experiencias exitosas de políticas agroambientales en Brasil. FAO.

^{34.} Porras, Ina et al. 2018. Ecosystems, poverty alleviation and conditional transfers. Guidance for practitioners. International Institute for Environment and Development, London.

BOX 5

Environmental services payments in Mexico

The Program for the Creation of Local Environmental Services Payment Mechanisms via National Forestry Commission Matching Funds (CONAFOR by its Spanish acronym) was established in Mexico in 2008. Matching funds bring together CONAFOR's financial and operational resources and public- and private-sector environmental services users' resources to transfer them to landowners where those services are produced, with the aim of

maintaining or improving service provision by promoting sustainable management practices in the area³⁵.

Since 2013, the program's guidelines include women's participation in environmental service provision in the selection criteria. Letters of intent that included the following criteria can earn up to six points (out of 36)³⁶:

PRIORITY CRITERIA	POINTS
1. Proposals in which providers are women, or in which women compose the representative body	Maximum of 3 points
In farm cooperatives and communities, a woman represents the membership body	1
In cases of private property, the owner or landholder is a woman	0.5
2. Proposals in which groups of women strengthen the organization (applies only to farm cooperatives and communities)	Maximum of 3 points
Environmental service providers that have conformed to a legally constituted women's group that makes use of the Women's Industrial Agriculture Union. (UAIM by its Spanish acronym	1
Environmental service providers that make use of UAIM	0.5
Environmental service providers that rely on an organized women's group with evidentiary documentation	0.5

^{35.} Perezpeña, Rubén. 2015. CONAFOR Analysis. Center for Environmental Research and Learning. Mexico.

^{36.} Official Newspaper of Mexico. 2013. CONAFOR Guidelines. Mexico.

These criteria were modified in the operating rules in 2020, allowing for a maximum of five points out of a possible 96 to be obtained based

on women's participation in environmental services provisions³⁷:

In the case of private property, the owner or landholder is a woman or an indigenous person	0.5
In farm cooperatives or communities, the representative body includes or more women or indigenous people	1
The provider is a woman or an indigenous person, or the provider's legal entity includes women's or indigenous people's representation in its representative body	Maximum of 5 points
PRIORITY CRITERIA	POINTS



FIREWOOD

Half of the wood collected in the world is burned, which equates to 9% of primary energy³⁸. In the region, a large part of the population relies on this combustible for cooking and heating their homes, especially in rural areas and the most impoverished sectors of society. The absence or inaccessibility of modern energy services forces these populations to use firewood to meet basic needs.

The contribution of firewood combustion to climate change is evident. First, unsustainable collection (34% of firewood collection is unsustainable) contributes to forest degradation and deforestation. Second, open fires and inefficient kitchens account for up to 58% of global black carbon emissions, the second largest contributor to climate change after carbon dioxide³⁹.

To reduce firewood use, forest projects promote more energy-efficient technology

and equipment use and access to alternative energy sources such as solar power, electricity or gas, and furnish populations with sustainably produced firewood. These projects have an important gender component, in that it is women who cook with firewood and in many cases are charged with its collection, along with their children.



Millions of women and children are exposed to harmful cooking smoke. Cooking with firewood and inefficient technologies produces elevated indoor levels of air contaminants by releasing harmful elements such as particulate matter and soot. In 2016, around 83 million premature deaths in Latin America were attributable to the use of solid fuels for household energy, according to the World Health Organization⁴⁰.

Families, principally women and children, collect firewood, which limits the time adults have available for productive activities and children have for education. Moreover, climate change impacts increase the distance and time collectors must travel to find firewood, along with the insecurity of these commutes during which women frequently suffer violence. Limited firewood access can also cause dietary changes that lead to familial malnutrition. Water storage is associated with inconsistent boiling, increasing the risk to pregnant women, malnourished people and sick people from contaminated water ingestion⁴¹.

The cost of firewood is another key factor. While many families collect firewood for cooking, many others purchase it, whether exclusively or to supplement what they collect. An efficient stove can provide a 66% savings in firewood expenditures, freeing up the money for other family necessities such as education or productive activities.

Women play an essential role in the adoption and use of modern and clean cooking technology, as they are responsible for the task. Therefore, women must be integrated in project and solution design processes. Without their opinions, products will not meet their needs and thus will not be used.



According to the Global Alliance for Clean Cookstoves, every link in the clean cooking value chain relies on women's participation for the following reasons⁴²:

Product design

Women's design inputs are critical. Their involvement can help generate demand, create appropriate products and increase adoption of new kitchen technologies.

Production

Clean kitchen production must contribute to women's economic empowerment, i) by creating employment in the production chain where women can apply their knowledge of ceramics and other fields or ii) support entrepreneurship.

^{40.} https://www.paho.org/es/temas/calidad-aire

^{41.} Stloukal, L., Holding, C., Kaaria, S., Guarascio, F., & Gunewardena, N. 2013. Los bosques, la seguridad alimentaria y el género.

^{42.} Hart, Corinne et al. 2013. Scaling Adoption of Clean Cooking Solutions throught Women's Empowerment. Global Alliance for Clean Cookstoves.

Consumer financing

The availability of different financing options helps women to access clean kitchens in a simple manner.

Provider financing

Women business owners play a key role in the kitchen sector, having direct access to potential customers. Often, these businesswomen encounter barriers to credit and investment access and need financial training.

Distribution

Women are key to scaling distribution. They are organized in networks, they go to the homes that are most difficult to reach, they can use their woman-to-woman marketing tools and they instill confidence in other women.

Aftermarket services

Women are well positioned to ensure proper maintenance and care of clean kitchens. Knowledge transfer from woman to woman is more effective than from man to woman.

Despite the use of kitchens with new combustibles and more modern and efficient technologies, the population will continue to need firewood. To ensure a sustainable supply, the establishment and management

of forest plantations and agroforestry systems for energetic purposes can be promoted. This type of project promotes employment creation between local communities, in which women's participation must also be considered.

RECOMMENDATIONS

Raise men's and women's awareness of alternative cooking technology benefits. Men must be included in this effort, as they are often in charge of the family budget and household purchases, especially those living in poverty.

Include women in kitchen design. Women's participation is essential to understanding the specific characteristics of food preparation in each region and country.

Offer technical trainings in finance and management to train women in businesses related to kitchen production, distribution and aftermarket services.

Create employment ensuring women's participation along the full stove value chain, including construction, commercialization and maintenance. Ensure women's participation in sustainable firewood production.
Organize cooperatives of women who work in kitchen production, distribution and maintenance, with the goal of sharing best practices, increasing financial access or easing access to kitchen repair products.
Create adequate financing mechanisms for female entrepreneurs or adapt existing instruments by, for example, reducing interest rates.
Crear mecanismos de financiación adecuados para las mujeres emprendedoras o adaptar los existentes disminuyendo, por ejemplo, las tasas de interés.
Analyze what foods take women longest to cook so as to propose culturally appropriate alternatives. For example, proposals can include the use of a different kitchen, modification of cooking methods or outsourcing of certain foods to women's cooperatives in the community. In Chiapas, women spend an estimated 35 to 65 hours per month cooking tortillas, which equates to 23-47% of their productive time making 7 kilograms (15.4 pounds) of tortillass ⁴³ .

Forests are the primary repository of terrestrial biodiversity and are important sources of food security, livelihoods and poverty alleviation for the most vulnerable rural populations. Forest loss from climate change impacts is a global threat to biodiversity, ecosystem services and the ways of life of forest-dependent communities. Among climate change impacts that threaten biodiversity retention are growing pest populations and fires, species adaptation failure and soil use changes.



According to a study of rural populations in Latin America, Africa and Asia, 77% of homes forage for wild food. The vast majority (77%) do so for subsistence and a smaller contingent (19%) for income generation. In the Latin American region, people collect 192 wild food species⁴⁴ including plants (fruits, seeds, roots, flowers, leaves and stems), animals (small mammals, birds and insects) and mushrooms.

Women depend on biodiversity products to a greater extent than men. Gender divisions in agricultural labor and food production, along with the fact that women have fewer income generation options than men⁴⁵, mean women turn more assiduously to the forest to forage for wild foods to round out their families' diets and generate income, search for materials to make artisanal handicrafts for sale and find combustibles for cooking and heating their homes.

The loss of forest biodiversity associated with climate change and the expansion of agricultural footprints add new challenges to women who must travel further to acquire food that they previously collected close to their homes, increasing the time they spend in that activity and reducing the hours available for productive work. The situation implies a loss of income generation from the sale of foraged products such as honey, nuts and orchids. In Latin America and the Caribbean, income from biodiversity represents 6%⁴⁶ of rural household income.

Men and women have different forest biodiversity knowledge and manage forest resources in distinct manners. For example, women often know how to identify and forage for nutritious wild food to enhance family meal preparation. With their knowledge, they tend to prioritize certain seeds for their shelf stability and contribution to food security and traditional medicine, helping to maintain existing biodiversity. They are considered the principal guardians of biodiversity. Men, for their part, have deeper knowledge of wild animals, fish and insects, as well as diverse timber species that can be important revenue generators.

Both types of knowledge are essential to decision making regarding resource and biodiversity management and conservation and climate change adaptation. Nonetheless, women's knowledge is frequently underestimated since women are not included in forest management and community

decision making, owing to traditional gender roles assigned to women in the forest and social norms that prevail in the community in the community, such as the belief that women cannot work in the forest or that their work need not be remunerated.

Add to that forest access barriers women encounter stemming from not being landowners and additional access barriers they face to credit, training, markets and value chains, which complicate taking advantage of biodiversity to generate income.

>>> Women's specific biodiversity knowledge contributes to species monitoring, forest restauration and soil management, all of which contribute to sustainable forest management



Source: Chopanch "orti" Commonwealth, Guatemala

BOX 6

Taking advantage of biodiversity for income generation

Women in the Selva
Viva Cooperative in
the Tres Garantías
farming cooperative
in Chetumal, Mexico
decided to take
advantage of fruit and
leaves from the breadnut
- an underappreciated
tree in their community
- to make flour, tea and
nut milk.

Breadnut seeds and leaves are important sources of amino acids, fiber, calcium, folate, vitamins A, B and C, iron and tryptophan. After receiving training through an IDB project within the Forest Investment Program on the collection and processing of breadnut seeds and leaves, as well as in business management, the nine women from the cooperative sought financing from diverse technical cooperations to launch their business. In 2015, they were legally incorporated as a forest business and received funds to construct their food production facility and a point of sale, both in the Tres Garantías location. Selva Viva 3G receives training from the Walmart Foundation to become a Walmart supplier.

Climate change has prolonged drought periods in Guatemala's dry corridor, which contributes to high levels of malnutrition there. The IDB Lab project, "Dry Corridor Natural Capital Restoration and Climate Adaptation," developed in the Copán Chortí-MCC Commonwealth, aims to restore natural resources in microwatersheds so as to strengthen the resilience of families, Chortí indigenous peoples and local governments, improve their production capacity of foods that sustain them through drought periods and protect watershed highlands to ensure water availability. To that end, a Climate Adaptation Model (CAM) was designed and implemented, through which families (primarily women) were trained in the restoration, production and use of native plants and animals that adapt better to local conditions. The project built 17 native herb nurseries, established 11 community seed banks and supported the restoration and reproduction of the Peluca chicken, which is well adapted to adverse climatic conditions such as drought. Each family received ten hens and two roosters, with the goal that they meat and eggs to feed themselves and to sell. At the end of the year, each family had to submit the same number of animals to another family that had not yet benefited from the program, with the objective of creating a multiplier effect. Through the MAC implementation, 6,261 families in 130 villages (19,310 direct and indirect beneficiaries of whom 97.6% are women) are generating some \$3.2 million in annual income from the sale of mean, eggs, corn and beans produced using native plant and animal species that are adapted to the local climate, and from forest incentives revenues for restoring some 5,000 hectares of forest. An evaluation determined that 36% of girls had a weight gain of 27% and height gain of 23%, owing to the increase of vegetable and animal protein in their diets⁴⁷.

New forest regulations and management practices can also limit women's access to forests. More sustainable forest management that tackles climate change impacts can complicate women's access to forest resources.

When the forest is redefined as a protected area, it can change admission requirements and thus limit women's access to forest resources if their interests and practices were not accounted for.

Facilitate women's participation in decision making that affects forest access in general and biodiversity access in particular.
Create programs that involve women in community forest conservation, for example by training them in integrated management of vegetables and fruit trees or in species monitoring.
Train women in forest grazing systems in forest buffer zones, promoting the benefits of forestry-grazing-agricultural (agro-sylvo-pastoral) practices and reducing pressure on forests and biodiversity.
Facilitate credit access that promotes the creation of businesses based on forest foods and other types of biodiversity foraged from the forest (seed and honey processing, plant sales, handicrafts, etc.).
Strengthen forest food use capacity after climate disasters such as droughts or floods.
Create employment through sustainable biodiversity management, for example by promoting gastrotourism around existing forest foods.
Promote and create orchard, greenhouse and chicken coop establishment and management programs for food (edible plants, fruits, eggs and meet) production, as well as medicinal and ornamental plants to complement that which is foraged from the forest.

ANNEX 1

UN-REDD METHODOLOGICAL BRIEF ON GENDER

The UN-REDD Methodological Brief on Gender⁴⁸ was published in 2017 to guide countries in integrating gender into the design, implementation and monitoring of REDD+ activities. The five work streams in the brief are of particular interest in efforts to include an adequate gender perspective in the four principal elements of **REDD+ Phase 1**:



- NATIONAL ACTION PLANS OR STRATEGIES
- 2 NATIONAL FOREST MONITORING SYSTEM
- SAFEGUARD INFORMATION SYSTEM
- 4 OR FOREST BENCHMARKS

UN-REDD METHODOLOGICAL BRIEF ON GENDER

The five streams can also be applied to **REDD+ Phase 2**, as well as in the development of the four themes of this report (value chains, environmental payment schemes, firewood and biodiversity), which are cross-cutting themes in **Phases 1 and 2**.

STREAM 1:

Gender-responsive assessments and gender-specific analyses Integrate a gender lens in assessments and designs necessary for REDD+ policy formulation, as well as in analyses designed to determine the direct and indirect drivers of deforestation and forest degradation and obstacles to REDD+ activities. Additionally, gender-specific analyses can be conducted as a parallel exercise.

STREAM 2:

Awareness raising and capacity building on gender Increase the depth of understanding of gender equality and women's empowerment concepts, build capacity on how to integrate them, and address the misperceptions concerning gender issues at global, regional and national levels. This can be achieved through bespoke training programs, incorporation of gender specialists in technical work and inclusion of gender elements in the development instruments of partner countries.

STREAM 3:

Gender-responsive participation

Promote gender balance and integrate gender equality and women's empowerment concepts within workshops, consultations, committees, decision-making bodies and training associated with REDD+.

STREAM 4:

Gender-responsive planning and monitoring

Develop gender-responsive monitoring and reporting frameworks and allocate adequate budgets for gender-responsive activities on REDD+, including in REDD+ finance structures. This can help to evaluate if women and men are benefitting from REDD+ processes and guarantee availability of adequate financial resources for gender-related activities.

STREAM 5:

Knowledge management on gender Systematize and document good practices on the design and implementation of gender-responsive REDD+ action and share experiences on gender between countries and regions as well as among stakeholder groups and staff.

ANNEX 2

FOLLOWING ARE SOME EXAMPLES OF INDICATORS FOR THE RECOMMENDATIONS INCLUDED IN THIS GUIDE

RESULTS AND PRODUCTS

INDICATORS

VALUE CHAINS

PARTICIPATION

RESULT

Increased participation of women in forest decisionmaking bodies such as forestry committees and water decision-making bodies boards

Number of men and women who participate in forest decision-making bodies

CREDIT

RESULT

Increase in the number of women who receive credit

Number of women and men who receive credit

PRODUCT

Woman-specific credit programs created or adapted

Number of woman-specific credit programs created or adapted

TRAINING

RESULT

Increase in women's participation in value chains through technical learning and new knowledge acquisition

Number of women who apply new techniques and knowledge in value chains

PRODUCT

Increase in the number of women trained in techniques and knowledge that improve their participation in value chains

Number of trainings of women in techniques and knowledge that improve their participation in value chains

AGROFORESTRY VALUE CHAINS

RESULT

Increase in the number of women working in agroforestry value chains

Number of women and men working in agroforestry value chains

RESULTS AND PRODUCTS

INDICATORS

TECHNOLOGY

RESULT

Reduction in women's time spent collecting and processing agroforestry products via technology

Number of hours women and men dedicate to collecting and processing agroforestry products

PRODUCT

Technologies introduced to reduce women's agroforestry product collection and processing time

Number of technologies introduced to reduce women's agroforestry product collection and processing time

TRANSITION FROM INFORMAL TO FORMAL MARKETS

RESULT

Increase in the number of women who belong to a cooperative, association or business who were formally part of the informal sector

Number of women who transition from the informal to the formal sector through a cooperative, association or business

Number of formal and informal workers in the value chain, disaggregated by sex

PRODUCT

Creation of cooperatives, associations or businesses to formalize female workers

Number of cooperatives, associations or businesses created or strengthened to formalize female workers

ENVIRONMENTAL PAYMENT SCHEMES

DESIGN PARTICIPATION

RESULT

REDD+ initiative design includes a significant gender lens

Number of gender activities included in REDD+ initiative design

PARTICIPATION AND MANAGEMENT

RESULT

Increase in the number of women participating in payment systems management

Number of women and men participating in payment systems management bodies

PAYMENTS

RESULT

Increase in the number of women who receive environmental services payments

Number of women and men who receive environmental services payments

RESULTS AND PRODUCTS

INDICATORS

PRODUCT

Trainings for women on financial services associated with received payments

Number of trainings for women on financial services associated with payments received

FIREWOOD

USE OF TECHNOLOGICAL ALTERNATIVES

RESULT

Increase in the number of homes that use alternative cooking technologies

Number of homes that use alternative cooking technologies, disaggregated by the head of household's sex

Reduced time spent cooking

Number of hours spent cooking

Reduced time spent collecting firewood

Number of hours spent collecting firewood

PRODUCT

Women and men are trained on the benefits of alternative cooking technologies

Number of women and men trained on the benefits of alternative cooking technologies

KITCHEN VALUE CHAIN

RESULT

Increase in women's participation in kitchen design

Number of women and men who participate in kitchen design

Increase in the number of women who work in the value chain

Number of women and men who work in the value chain Number of part- and full-time female employees Number of temporary and permanent jobs Number of woman-created businesses

PRODUCT

Increase in women trained to participate in value chain businesses

Number of women and men who receive technical, management or financial training

FINANCE

RESULT

Increase in the number of women who receive financing to buy a kitchen or launch a business

Number of women and men who receive financing to buy a kitchen

Number of men and women entrepreneurs who receive credit

RESULTS AND PRODUCTS

INDICATORS

BIODIVERSITY

PARTICIPATION IN DECISION MAKING

RESULT

Increase in the number of women participating in decision making regarding forest and biodiversity access

Number of women who participate in forest decision making bodies

PRODUCT

Trainings to increase women's participation in decisions regarding forest and biodiversity access

Number of trainings conducted to empower women and strengthen their participation in decision making

COMMUNITY CONSERVATION

RESULT

Increase in women's participation in community forest conservation activities

Number of women and men who participate in community forest conservation activities

Number of women and men who participate in see recovery activities

SUSTAINABLE BUSINESS CREATION

RESULT

Increase in the number of women working in biodiversity-based, sustainable businesses

 $\label{lem:number of sustainable businesses created, disaggregated by sex$

PRODUCT

Technical trainings in business or finance to train women in business creation

Number of business creation training programs for women

CREDIT

RESULT

Increase in the number of women who access credit to create biodiversity-based businesses

Number of women and men who access credit

