# Gender matters in Forest Landscape Restoration

## A framework for design and evaluation

Bimbika Sijapati Basnett, Marlène Elias, Markus Ihalainen and Ana Maria Paez Valencia

## Key messages

- The essence of gender-responsive Forest Landscape Restoration (FLR) is ensuring that women and men at all levels have equal voice and influence in strategic decisions related to FLR, and that this contributes to substantive equality in outcomes for women and men.
- 'Free and Prior Informed Consent', 'fair' and 'just' compensation, and impartial and effective grievance mechanisms for all those affected are critical to safeguarding the rights of local and indigenous women and men.
- Decisions about target areas for restoration, choice of stakeholders for FLR governance and how to include them, restoration approaches, priority species and how to monitor progress should be made following gender-inclusive participatory processes to capitalize on the knowledge and experiences of both women and men.
- Mechanisms and measures at various scales are required to equitably distribute benefits and costs associated with restoration for both women and men in participating communities.

## Introduction

While Forest Landscape Restoration (FLR) is by no means a new idea, it has received unprecedented global attention in recent years. In 2011, the international community launched the Bonn Challenge to restore 150 million ha of deforested and degraded lands by 2020 and 350 million ha by 2030. The African Forest Landscape Restoration Initiative (AFR100) aims to bring 100 million ha of degraded forest landscapes in Africa under restoration by 2030.

FLR is commonly understood as "a planned process that aims to regain ecological integrity and enhance wellbeing in deforested and degraded landscapes" (Dudley et al. 2005). Unlocking the potential of FLR to achieve both social and environmental outcomes rests critically on the support, contributions and cooperation of a wide range of stakeholders at all levels. In particular, it relies on those who depend on the landscapes under consideration for their livelihoods — and whose rights and wellbeing must be safeguarded and promoted for restoration to be sustainable. FLR is, and will be, implemented in countries and contexts with weak systems of governance, histories of land tenure conflicts and structural discrimination against women and indigenous communities. Consequently, it is essential to ensure FLR initiatives do not perpetuate historical injustices and/or exclude and marginalize indigenous and local communities (Sarmiento Barletti and Larson 2017).

Numerous studies have found that encouraging and incentivizing women's participation can enhance the effectiveness and sustainability of forest management (e.g. Agarwal 2010; Coleman and Mwangi 2013; Leisher et al. 2016). Yet, despite potential synergies between restoration and gender equality outcomes, gender remains poorly addressed in restoration research and practice (Clewell and Aronson 2013; Broeckhoeven and Cliquet 2015).

This brief provides a framework and set of recommendations for enhancing gender equality and women's rights in and through FLR initiatives. It presents key considerations for gender-responsive FLR, drawing on lessons from the wider gender and natural resource management literature, ongoing and past restoration, and relevant initiatives to alter local land uses for global conservation and development goals.

### What is Forest Landscape Restoration?

## Why are gender equality and rights critical in FLR?

The Sustainable Development Goals (SDGs) recognize that gender equality and women's empowerment are a cornerstone of sustainable development. SDG 5 on gender equality and women's empowerment includes targets of equal participation in decision making (5.5.), equal rights to resources (5.a.) and policies to promote equality and empowerment (5.c.). Embedding gender into FLR activities offers considerable opportunities for leveraging synergies between restoration commitments, climate change action and global commitments to sustainable development.

Gender equality and rights must be central in restoration to avoid perpetuating gender inequalities, to incentivize women and men to contribute to restoration efforts and to provide greater opportunities and enhanced wellbeing for women and men alike. Equitable participation in restoration initiatives — in terms of decision making and influence, and the distribution of (labor) costs and benefits — generates broader local buy-in and enhanced capacities. This, in turn, improves prospects for both human and socioeconomic development and environmental outcomes (Covelli-Metcalf et al. 2015; Horlings 2015; Lescourret et al. 2015). Past restoration initiatives that were gender blind and/or excluded women exacerbated gender inequalities. Women's access to land and resources were further restricted, women's voice and agency were undermined and their work burden heightened (Sarin 1995; Agarwal 2001; Nightingale 2002; Sijapati 2008). Restoration initiatives need to support growing efforts globally to enhance women's rights (including those to land) (RRI 2017) rather than ignoring or reversing progress.

> *In the pursuit of sustainability, the question of what is sustained and who benefits is central. Yet the challenges are often seen in technical and managerial terms, as a matter of getting the technologies, prices and regulations right, rather than in terms of the more profound restructuring of social, economic and political systems and power imbalances that would be required to transform unsustainable patterns. How the challenges are addressed has profound implications for who gains and who loses, among social groups and local, national and global interests.*
>
> (UN Women Report 2014, pp.33)

## Framework for gender-responsive FLR

Gender-equitable and socially inclusive engagement must take into account at least three types of decisions: land use and control; FLR priorities and approaches; and the distribution of costs and benefits. Women's lack of voice and influence across the three areas of decision making is a persistent challenge and the product of interlocking inequalities at the household, community, state and market levels. Discriminatory gender norms and practices (Agarwal 2001), exclusionary institutions (Arora-Jonsson 2011 and persistent information asymmetries (Larson et al. 2015), among other factors, may all limit women's ability to voice their views, interests and concerns effectively. Hence, efforts to enhance gender equality and women's wellbeing must go beyond assuming that women's representation in project activities alone will result in more equitable decision making and benefits. Female role models and collectives, as well as supportive men, can lead the way in challenging discriminatory gender norms and institutions at various scales to bring about systemic change (Mwangi 2017). Yet the links between procedural and distributive justice cannot be left to individual women or their representatives (Chant 2016). A broader enabling environment will be central to safeguard women's rights, ensure women's views and priorities are adequately reflected in restoration planning and implementation, and equitably distribute benefits and costs of restoration between women and men across social groups.

### Changes in land use, control and ownership

The International Union for Conservation of Nature (IUCN), World Resources Institute (WRI) and University of Maryland jointly produced the World of Opportunity map[1] that shows more than 2 billion ha of land with restoration potential globally. Based on our ongoing review of 28 countries across Asia, Africa and Latin America, this is not an abstract exercise. We are finding that climate change mitigation strategies and forestry/agriculture policies rely on such geographic information systems and aggregated data to identify and earmark areas that are suitable for FLR (Elias et al. forthcoming).

1 http://www.bonnchallenge.org/content/global-opportunity-map

# Framework for gender-responsive FLR

**GLOBAL, NATIONAL AND REGIONAL PLEDGES, SUCH AS THE BONN CHALLENGE, REFLECT THE INTENTION TO RESTORE LARGE AREAS OF DEGRADED AND DEFORESTED LANDS.**

However, these areas are claimed, used or accessed, formally and informally, currently or in the future.

## SAFEGUARDS

Therefore, different social groups of women and men must be entitled to 'free prior and informed consent'.

In case of displacement of land or livelihoods fair and legitimate compensation must be offered to all those affected.

There needs to be an adequate, accessible and effective grievance system.

## OPPORTUNITIES

Restoration efforts must reflect the priorities, interests and knowledge of both women and men.

Restoration efforts must recognize and compensate both women´s and men´s efforts (labour, financial and/or in-kind contributions) equally.

Restoration benefits must be equitably distributed.

Both women and men must have equal say in all decisions related to FLR.


## RESTORATION BENEFITS

- CASH TRANSFERS
- JOBS
- SECURE TENURE
- INCOME EARNING OPPORTUNITIES
- IMPROVED ECOSYSTEM SERVICES

Yet the identification of 'suitable land' based on aggregated and remote sensing data is problematic for three primary reasons.

First, it risks assuming there are 'barren', 'idle', 'marginal', 'underutilized' and/or 'degraded' lands, as well as 'wastelands', available for restoration. Anthropologists working on land-related issues in Southeast Asia have long cautioned against such narratives, which have been used to justify a range of policies to govern people and lands since colonial times. By depicting land as empty of people, histories and claims, these narratives erase diverse arrays of land types in favor of homogenized and aggregated units, presenting the land as "full of potential for new and improved uses" (Dove 1997; Li 2014).

Second, land (as well as water) is unique compared to other 'assets' precisely for its life-giving quality (Li 2014). Land also gives meaning to people's lives, and as such is more than a source of material wealth. Hence, access and claims on these lands are inevitably coveted, contested and negotiated in multiple ways by multiple people (Agarwal 1994; Rao 2017). Indeed, multiple actors can simultaneously claim and use one parcel of land for different purposes (Fortmann et al. 1997). In rural Indonesia, for instance, complex and overlapping claims to land are commonplace. A parcel of land can be claimed as customary land by indigenous peoples whose rights to plant might be recognized by departments of agriculture, but not those in charge of forestry. The same parcel may simultaneously be claimed by migrants who have cleared the land and/or settled there, and may be allocated as a concession to private logging or oil palm companies. Even when formal property rights are clearer, such as in many parts of South Asia, land-related disputes and conflicts within the household, the larger kinship network or among different social groups, communities, the private sector and states remain some of the defining features of rural landscapes. Therefore, FLR initiatives and policies primarily targeting *de jure* landowners risk ignoring overlapping uses and claims, and placing rural women and men at the sidelines of FLR efforts.

Third, lack of secure tenure puts rural communities in a vulnerable position. Women in these communities are likely to face a second layer of vulnerability as their rights are even more tenuous due to legal and cultural barriers to women's land rights and ownership (FAO 2005). Gender gaps in land ownership occur across different property rights regimes (e.g. Agarwal 1994; RRI 2017). Women's (and poor men's) insecure access to land and trees can limit their ability and interest to plant or manage trees over which they may not have decision-making authority or long-term access (Fortmann et al. 1997; Mukadasi and Nabalegwa 2007). In certain contexts, legal frameworks provide direct disincentives to forest restoration, as forested areas by default fall under the control and ownership of the state (see e.g. Turner 2014 on Morocco). In contrast, more secure rights to future benefits through enhanced tenure security have been found to correlate positively with women's likelihood of engaging in restoration (e.g. Chhatre et al. 2012; Quisumbing and Kumar 2014).

> "Access and claims on land are inevitably coveted, contested and negotiated in multiple ways by multiple people. Women's rights are tenuous due to legal and cultural barriers to women's access and ownership.

It must be acknowledged that FLR may well create enclosures and contribute to the exclusion of women and men in local and indigenous communities from existing systems of land uses or livelihoods. If not managed responsibly, such exclusion can ultimately undermine the sustainability and legitimacy of FLR. Therefore, in addition to identifying FLR-suitable areas through satellite maps and aggregated data, a thorough understanding of land-use practices, claims, and customary and statutory tenure relations under different FLR scenarios, is essential. This is integral for better identifying which groups of users, formal and informal rights holders and/or other stakeholders are likely to be affected under particular FLR scenarios. It is also essential for developing strategies to avoid or minimize displacement of all affected groups, particularly marginalized social groups.

Large groups of indigenous and local peoples are at risk of forcible exclusion or displacement due to the rush of lands grabs in developing countries in the name of food security and climate change. These threats have elevated the importance of 'Free, Prior and Informed Consent' (FPIC)[2] as a mechanism to safeguard local and indigenous peoples' rights (see: Peluso and Lund 2011; Behrman 2012; Li 2014). There is growing concern that the infusion of financial capital in REDD+ is likely to exacerbate vulnerabilities among already marginalized communities. In response, the Cancun Agreements adopted by the UN Framework Convention for Climate Change (UNFCCC) at the 16th Conference of the Parties (COP16) include a set of social safeguards for REDD+. These safeguards include FPIC, which refer to "respect for the knowledge and rights of indigenous communities" and "full and effective participation of all stakeholders" (Bee and Sijapati 2016). Efforts to design and implement FLR must learn from these experiences, and ensure that FPIC is earned from both women and men, in both local and indigenous communities. Although FLR is often seen as distinct from REDD+, our ongoing review shows that REDD+ initiatives are key mechanisms for realizing FLR pledges (Elias et al. forthcoming).

2 Free, Prior and Informed Consent (FPIC) is an international human rights standard that emerges from the right of indigenous and local peoples to self-determination, as well as to their land, territories and resources. Forest Peoples Program, a non-governmental organization focused on human rights, defines FPIC as: "the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use".

As McLain et al. (2017) note, however, there is very little understanding about how to apply FPIC in non-cohesive and heterogeneous communities. Research on large-scale conversion of land into oil palm in Indonesia found that women were not part of direct negotiations about partnership agreements with companies. This was the case even when they stood to lose land that they used or managed for household food provisioning (Julia and White 2012; Li 2014). Even in fairly gender egalitarian communities, companies interfaced with men. This occurred because of the companies' gender assumptions about who made decisions within the household and because men historically dealt with external actors (Elmhirst et al. 2017). FPIC is often considered relevant at the community-state or community-private level, but intra-community diversity is not recognized. As a result, women and marginalized groups, in particular, are excluded from decision making and benefit sharing in both instances. Even well-intentioned restoration initiatives can reinforce social cleavages (McDermott 2008). Such concerns are particularly important in light of a recent systematic review of REDD+ studies, which found that most projects had not applied FPIC. REDD+ projects were commenced prior to community consultation, and information was purposefully withheld to manage community expectations (Saeed et al. 2017).

Local people's exclusion from current land uses or from their lands can be seen as more legitimate if landholders or users perceive they were 'fairly' compensated. Yet, states or companies commonly dictate the price of compensation, setting it far below market rates or the local opportunity costs of changing land uses. Discussions about compensation are of specific importance as the opportunity costs for restoration tend to be lowest where people are poorest — richer people tend to earn higher incomes from uses of land that lead to deforestation (Ickowitz et al. 2017 on REDD+). From a gender perspective, questions about who is compensated and how are central. Research on large-scale land acquisition for oil palm expansion in Indonesia, for instance, shows that compensation is commonly negotiated between the oil palm company and the household head. This process often falsely assumes that the head's inputs reflect the interests of all household members, and that the compensation will trickle down equally among all members. Furthermore, women's non-monetary contributions toward family provisioning using the land in question do not figure into the calculation about how much compensation is 'fair' and 'just'.

Sarmiento Barletti and Larson (2017) found very few human rights allegations related to REDD+ had been heard in court and/or that there were, or are, no clear mechanisms for channeling grievances and mediating conflicts. Among other factors, the costs of pursuing legal action, and lack of national mechanisms to denounce abuses and of political will to investigate and prosecute abuses, deter victims from pursuing legal action. This study illustrates the importance of putting in place fair, transparent and impartial mechanisms to redress grievances or complaint handling mechanisms to mitigate the risks of displacement and unfair compensation for land and livelihoods. Further, it demonstrates the need to ensure that actors involved in designing and implementing FLR are accountable to women and men from marginalized groups.

## Setting priorities and implementing FLR

When local women and men do concede to changes in their land use or access patterns, their ability to exercise equal voice and influence in setting priorities and processes for FLR should be guaranteed. Active local participation and voice over decisions in restoration initiatives are often not realized. When they are realized, they tend to be dominated by better resourced, educated, land-owning men from privileged sociocultural groups (Nederlof and Dangbegnon 2007). Other groups may not be consulted, even when these decisions will entail very real consequences for them.

Important decisions pertaining to FLR include restoration objectives, location, duration, scale, approaches, selection of species and restoration of ecosystem services. These priorities are driven by gendered sets of knowledge, rights, roles and responsibilities. For instance, gender norms and roles determine perceptions about land degradation and priority areas for restoration. Research in eastern Africa found substantial variation in the spatial perceptions of degradation; men and women observe degradation at the spatial locations where they spend most time and effort (Crossland et al. forthcoming). In West Africa, men and women have distinct, but overlapping, knowledge about the shea tree (*Vitellaria paradoxa*), its uses, management and conservation. The often-held notion that men are the primary managers of the resource overlooks the important contribution that women make to parkland management interventions (Elias 2015). In contrast, publicly recognizing women as land managers and ecological knowledge holders can enhance their recognition and social standing within their communities. Engaging both men and women in the planning and implementation of restoration allows programmers to harness their diverse knowledge and experiences, providing insights into drivers of degradation and potential benefits in terms of recovered ecosystem services and livelihood opportunities.

Significant gender differences often exist with respect to the types of benefits preferred by women and men (Pham 2016). In Southeast Asia, gender-specific roles in agriculture and natural resource management influence appreciation of land uses, tree cover and associated ecosystem services (Van Noordwijk et al. 2014; Villamor et al. 2014). Phenomena like rural out-migration and the increasing engagement of women as wage laborers in large plantations should be considered. They can change the ways men and women interact with the landscape and their stakes in efforts to reclaim or restore land (Catacutan and Villamor 2016).

Due to their socially constructed gender roles and responsibilities, women's and men's environmental knowledge and priorities for restoration often differ. They may even

> Due to their socially constructed gender roles and responsibilities, women's and men's environmental knowledge and priorities for restoration often differ.

contradict each other and/or the ecological goals of FLR. In such instances, there may be need to reconcile tensions among competing interests. For example, research on gender, restoration and climate change in Burkina Faso shows that women's adaptive capacities are significantly higher in indigenous tree-based and small-scale restored lands than monoculture tree plantations. This is the case even if the plantations contain higher carbon stocks, which are more efficient from a mitigation perspective (Djoudi and Brockhaus 2011). This finding demonstrates that simple 'win-win' solutions cannot be assumed. Restoration efforts that promote gender equality and/or address women's interests may not always be the most efficient option to reach other targets.

Gender-responsive initiatives that encourage inclusive participation can contribute toward addressing greater equality in gender roles and decision making at various levels. Key lessons from action research in Uganda successfully contributed to an increase in women's participation in forest-related decisions. At the same time, they secured women's land rights and incentivized both women and men to support restoration activities. These lessons suggest the following: gender considerations must be meaningfully integrated throughout restoration assessment, planning and implementation processes; entry points for action and reform must be identified in collaboration with local stakeholders; and opportunities for women to empower themselves (through greater access to resources, income-generating activities and leadership) must be facilitated (Mwangi 2017).

## Distribution of costs and benefits of FLR

The type and objective of restoration supported by FLR initiatives affect the distribution of costs and benefits (McLain et al. 2017). Ideally, FLR should contribute to a number of benefits, including carbon sequestration, biodiversity, soil health, adaptation, enhanced rights and livelihoods. However, most initiatives under the Bonn Challenge are financed by climate funds and target carbon as a priority. Identifying options that generate wider benefits and enhance multiple functions of landscapes is therefore particularly important.

Socioeconomic benefits are crucial, as 'enhancing human wellbeing' is an integral objective for FLR (Dudley et al. 2005), and as these benefits are of instrumental value for incentivizing various stakeholders' engagement in FLR (Verdone 2015). For example, Baynes et al. (2015) find that material benefits to community members are necessary to influence the success of community forestry. Local communities may knowingly and freely concede to changes in their land through restoration activities when benefits derived from FLR exceed opportunity costs associated with the land-use change (Verdone 2015). Such benefits range from cash transfers, employment, income-earning opportunities, infrastructure and access to basic services to enhanced access to forest products and ecosystem services (such as clean water). Past experiences demonstrate that initiatives seeking to generate co-benefits to local stakeholders tend to achieve more sustainable restoration outcomes than those focused on carbon sequestration alone (Covelli-Metcalf et al. 2015). Indeed, this is one of the major reasons why REDD, initially designed to reduce deforestation and degradation in developing countries, morphed into REDD+, with safeguards and co-benefits viewed as integral components.

However, inequalities persist with respect to women's and men's access to and control over benefits. For instance, as women in many parts of the world control less land than their male counterparts, benefit schemes based on land ownership (UN REDD 2011) or relative contributions of land to restoration (Agarwal 2001) may have significant gender implications. In other instances, such as in Indonesia, den Besten (2011) found the promotion of cash crop trees for farmland restoration predominantly benefited the income of men. In the absence of suitable benefits, women — who mostly depended on non-cash income from agriculture — were forced to clear more land. In Vietnam, Pham (2016) finds that women were not able to enjoy cash benefits derived from payment for ecosystem services, negatively affecting their willingness to participate in the scheme in the longer term. Participating as full participants in FLR with a voice and influence in decision-making structures and processes often enables more equal access to resources and a more equitable sharing of benefits for women.

As mentioned above, however, women's official participation in FLR does not guarantee their access to benefits. For instance, despite social safeguards, marginalized groups — including women — have often been left out of REDD+ benefits (Larson et al. 2015; Howson 2017; Ickowitz et al. 2017; Sarmienti Barletti and Larson 2017). In CIFOR's global comparative study, women knew much less about REDD+ than men across REDD+ sites. This reflected their lack of voice and influence in REDD+ community decision-making processes. A follow-up study three years later found that women in REDD+ intervention areas were more likely to report a reduction in overall subjective wellbeing than women in control areas. A regression analysis showed a correlation between REDD+ and women's decline in subjective wellbeing. Larson et al. (forthcoming) explain these results in terms of the lack of gender-responsiveness from the outset of REDD+ initiatives (Ramsay 2017). Inequalities also exist among women. In Nepal, for instance, Khadka et al. (2014) find Dalit women to be the most marginalized in terms of accessing REDD+ benefits than women from other social groups.

Whether or not they can benefit from FLR, women's engagement in restoration activities is likely to have an impact on their overall workload. This is particularly the case in contexts where land management and agricultural production is becoming increasingly feminized (Agarwal 2014). Agroforestry technologies and practices often promoted as part of restoration initiatives are knowledge- and labor-intensive. In some cases, they involve long-term investment with delayed returns. Many restoration initiatives rely on women's labor for planting and nursing seedlings. However, women's lack of secure tenure means they do not always have rights to benefit from the trees when they grow (e.g. Turner 2014). Women are overrepresented in subsistence and social reproductive spheres (household and care work). As a result, monetary cost-benefit analyses may neglect the opportunity costs, including time and labor, and changes in cash and non-cash income (IUCN 2017) women face. Further, they may fail to recognize women as important and legitimate stakeholders in FLR processes. For one, IUCN's (Verdone 2015) cost-benefit framework for analyzing forest landscape restoration decisions does not mention 'gender' or 'women' once. Gender-blind benefit schemes thus risk generating benefits from which women are excluded, while further heightening women's overall work burden.

Due to narratives linking poverty and deforestation, efforts to address deforestation are often combined with poverty reduction measures. Discussing gender and REDD+, Westholm and Arora-Jonsson (2015) argue the emphasis on poverty reduction has helped reduce 'gender equality' at the project level to supporting income-generating activities for women — particularly through interventions in 'women's value chains'. Indeed, such approaches are common across a range of restoration initiatives. For instance, a restoration project supported by the Green Climate Fund in Senegal undertakes "… various initiatives under the traditional activities where women usually have the upper hand such as … small breeding …vegetable production, fish farming" (GCF 2015). In Brazil, an IUCN-led FLR project supports women's engagement in the licuri (*Syagrus coronata*) value chain (IUCN 2015); in Kenya, the Greenbelt Movement trains women community leaders in bamboo cultivation (GBM 2017); and in Morocco, the state-driven Green Plan combines restoration with support to women's argan oil (*Argania spinosa*) producer cooperatives (Turner 2014).

These approaches have the potential to increase women's incomes. However, Westholm and Arora-Jonsson (2015) question whether they challenge — rather than merely reproduce — inequitable patterns of natural resource management and use. Gender and development scholars have long pointed to the problem of conflating 'poverty' and 'gender inequality' (Jackson 1996; Chant 2008; Arrora-Jonsson 2011). Others question the extent to which the mobilization and commercialization of female labor ends up benefiting women, and whether enhanced income to individual women actually reforms the underlying structures of gender inequality (Chant and Sweetman 2012; Chant 2016). For instance, Elias and Carney (2007) note that the donor-led process of connecting women's associations in Burkina Faso to global shea butter markets has expanded women's incomes, but also left them shouldering greater financial responsibilities within their homes. In the cases of shea butter and argan oil in West Africa, Wardell and Fold (2013) and Biermayr-Jenzano et al. (2014), respectively, find that women might even be losing their traditional advantages in terms of nut processing and sales due to increased commercialization and mechanization of production.

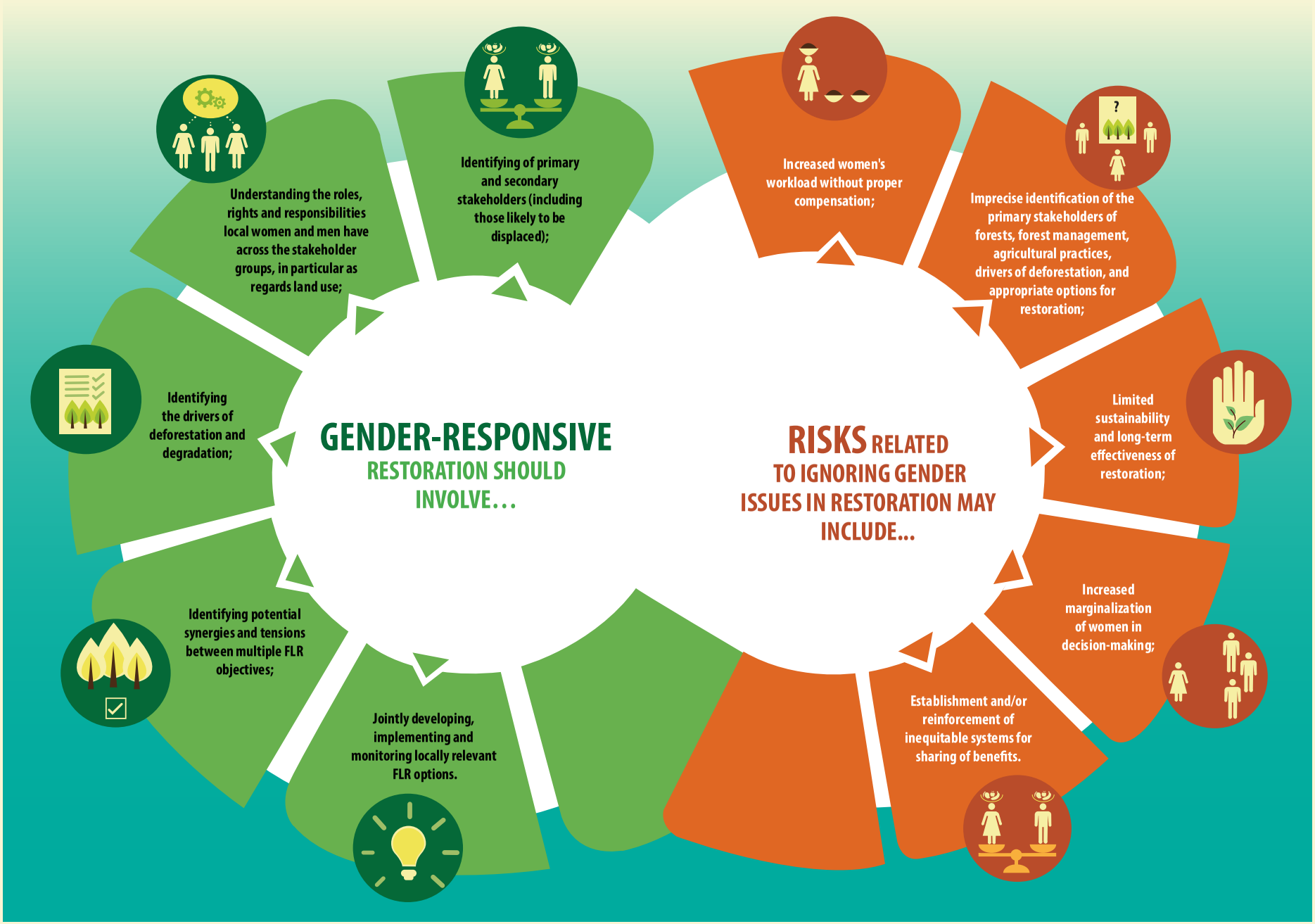
## Recommendations for advancing gender equality and justice in FLR

Gender-responsive restoration necessitates enabling women and men at all levels to have an equal say in strategic decisions related to FLR, and ensuring this translates into substantive equality in FLR outcomes. This necessitates that women and men in indigenous and local communities are recognized as rights-holders and legitimate stakeholders who can exercise voice and influence in changes in land use from FLR, governance of FLR and distribution of resultant benefits and costs.

The very real possibility that FLR may lead to displacement of land and livelihoods must be acknowledged, and therefore avoided and/or minimized where possible. Gender-responsive FPIC, compensation and adequate grievance mechanisms for all those likely to be affected are critical to safeguarding the rights of local and indigenous women and men.

Ignoring women in restoration initiatives means overlooking the priorities, strategies and knowledge of half the population. Decisions about what species to introduce in a degraded landscape and what areas should be prioritized for restoration should be made following inclusive participatory processes. These processes should address the different interests of community members, who rely on distinct tree species or varieties and use their gender-specific skills to manage and use them.

The distribution of costs and benefits will depend on the extent to which different social groups have a voice in, and influence over, FLR processes and decisions. Lessons from past restoration efforts have shown that although women are mobilized to provide labor and skills for restoration initiatives, they usually have less ability to benefit than men. Hence, responsibilities for restoration are devolved, but rights to benefit equally from restoration are not. Mechanisms and measures at various scales are required to develop and implement initiatives that equitably benefit members of participating communities.


GENDER-RESPONSIVE
RESTORATION SHOULD INVOLVE…
Understanding the roles, rights and responsibilities local women and men have across the stakeholder groups, in particular as regards land use;
Identifying of primary and secondary stakeholders (including those likely to be displaced);
Identifying the drivers of deforestation and degradation;
Identifying potential synergies and tensions between multiple FLR objectives;
Jointly developing, implementing and monitoring locally relevant FLR options.
RISKS RELATED TO IGNORING GENDER ISSUES IN RESTORATION MAY INCLUDE...
Increased women's workload without proper compensation;
Imprecise identification of the primary stakeholders of forests, forest management, agricultural practices, drivers of deforestation, and appropriate options for restoration;
Limited sustainability and long-term effectiveness of restoration;
Increased marginalization of women in decision-making;
Establishment and/or reinforcement of inequitable systems for sharing of benefits.

## Acknowledgments

We would like to acknowledge the participants at the CIFOR-GIZ joint event on Forest Landscape Restoration and Tenure Security Workshop in Bonn, on 3 November 2017 for their valuable comments and suggestions when an earlier draft of this paper was presented. This research was funded by UK aid through their Knowledge for Forestry Program, and it was conducted as part of the CGIAR Research Program on Forests, Trees and Agroforestry (FTA) and on Policies, Institutions and Markets (PIM) with financial support from the CGIAR Fund Donors. For a list of Fund donors please see: www.cgiar.org/about-us/ourfunders/

## References

Agarwal B. 2014. Food sovereignty, food security and democratic choice: Critical contradictions, difficult conciliations. *Journal of Peasant Studies* 6150(September):1–22.

Agarwal B. 2010. *Gender and Green Governance: The Political Economy of Women's Presence within and beyond Community Forestry*. London: Oxford University Press.

Agarwal B. 2001. Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. *World Development* 29(10):1623–1648.

Agarwal B. 1994. Gender and command over property: A critical gap in economic analysis and policy in South Asia. *World Development* 22(10):1455–78.

Arora-Jonsson S. 2011. Virtue and vulnerability: Discourses on women, gender and climate change. *Global Environmental Change* 21(2):744–51.

Baynes J, Herbohn J, Smith C, Fisher R and Bray D. 2015. Key factors which influence the success of community forestry in developing countries. *Global Environmental Change* 35:226–238.

Bee B.A. and Sijapati Basnett B. 2016. Engendering social and environmental safeguards in REDD + : Lessons from feminist and development research. *Third World Quarterly* (July) 38(4): 787–804.

Behrman J. 2012. The gender implications of large-scale land deals. *Journal of Peasant Studies* 39(January):49–79.

Biermayr-Jenzano P, Kassam, SN and Aw-Hassan A. 2014. *Understanding gender and poverty dimensions of high value agricultural commodity chains in the Souss-Masaa-Draa region of southwestern Morocco*. Working paper. Amman, Jordan: International Center for Agricultural Research in the Dry Areas.

Broeckhoven N and Cliquet A. 2015. Gender and ecological restoration: Time to connect the dots. *Restoration Ecology* 23(6):729–736.

Catacutan DC and Villamor GB. 2016. Gender roles and land use preferences — Implications to landscape restoration in Southeast Asia. *In* Chabay I, Frick M and Helgeson J, eds. *Land Restoration: Reclaiming Landscapes for a Sustainable Future*. Boston: Academic Press. 431–440.

Coleman EA and Mwangi E. 2013. Women's participation in forest management: A cross-country analysis. *Global Environmental Change* 23(1):193–205.

Chant S. 2016. Women, girls and world poverty: Empowerment, equality or essentialism? *International Development Planning Review* 38(1):1–24.

Chant S and Sweetman C. 2012. Fixing women or fixing the world? "Smart economics", efficiency approaches, and gender equality in development. *Gender and Development* 20(3):517–29.

Chant S. 2008. Dangerous equations? How female-headed households became the poorest of the poor: Causes, consequences and cautions. *IDS Bulletin* 35(4):19–26.

Chhatre A, Lakhanpal S, Larson AM, Nelson F, Ojha H and Rao J. 2012. Social safeguards and co-benefits in REDD+: A review of the adjacent possible. *Current Opinion in Environmental Sustainability*, 4:654–660.

Clewell AF and Aronson J. 2013. *Ecological Restoration*. Washington, DC: Island Press/Center for Resource Economics.

Coleman EA and Mwangi E. 2013. Women's participation in forest management: A cross-country analysis. *Global Environmental Change* 23:193–205.

Covelli-Metcalf E, Mohr JJ, Yung L, Metcalf P and Craig D. 2015. The role of trust in restoration success: Public engagement and temporal and spatial scale in a complex social-ecological system. *Restoration Ecology* 23.3:315–24.

Crossland M, Winowiecki L, Pagella T, Hadgu K and Sinclair L. In press. Local perceptions of degradation and restoration. *Land degradation and development*.

den Besten JW. 2011. Women in REDD+. In Aguilar L, Quesada-Aguilar, A and Shaw DMP, eds. *Forests and Gender*. Gland, Switzerland: International Union for Conservation of Nature and New York, NY: Women's Environment & Development Organization.

Djoudi H and Brockhaus M. 2011. Is adaptation to climate change gender neutral? Lessons from communities dependent on livestock and forests in northern Mali. *International Forestry Review* 13(2):123-135.

Dove MR. 1997. The epistemology of Southeast Asia's anthropogenic grasslands: Issues of myth, science and development. *Southeast Asian Studies* 35(2):223–39.

Dudley N, Mansourian S and Vallauri D, eds. 2005. Forest landscape restoration in context. *In Forest Restoration in Landscapes – Beyond Planting Trees*. New York: Springer.

Elias M. 2015. Gender, knowledge-sharing and management of shea (*Vitellaria paradoxa*) parklands in central-west Burkina Faso. *Journal of Rural Studies* 38:27–38.

Elias M. and Carney J. 2007. African shea butter: A feminized subsidy from nature. *Africa* 77(1): 37–62.

Elmhirst R, Siscawati M, Basnett BS and Ekowati D. 2017. Gender and generation in engagements with oil palm in East Kalimantan, Indonesia: Insights from feminist political ecology. *Journal of Peasant Studies* 6150(October):1–23.

[FAO] Food and Agriculture Organization of the United Nations. 2005. *The State of Food and Agriculture 2005*. Rome: FAO.

Fortmann L, Antinori C and Nabane N. 1997. Fruits of their labors: Gender, property rights, and tree planting in two Zimbabwe villages. *Rural Sociology* 62(3):295–314.

Gaveau DLA, Pirard R, Salim MA, Tonoto P, Husnayaen, Parks, SA and Carmenta R. 2017. Overlapping land claims limit the use of satellites to monitor No-Deforestation commitments and No-Burning compliance. *Conservation Letters* 10(2):257–264.

[GBM] Green Belt Movement. 2017. *Women's Groups in Murang'a Embrace Bamboo as a Renewable Resource*. 26 July 2017. Accessed 27 November 2017. http://www.greenbeltmovement.org/node/829

[GCF] Green Climate Fund. 2015. *Consideration of funding proposals – Addendum. Funding proposal package for FP003*, GCF/B.11/04/Add.03. 15 October 2015.

Horlings LG. 2015. The inner dimension of sustainability: Personal and cultural values. *Current Opinion in Environmental Sustainability* 14:163–69.

Howson P. 2017. Intimate exclusions from the REDD+ forests of Sungai Lamandau, Indonesia. *Conservation and Society* 15(125): 125–135.

Ickowitz A, Sills E and De Sassi C. 2017. Estimating smallholder opportunity costs of REDD+: A pantropical analysis from households to carbon and back. *World Development* 95:15–26.

[IUCN] International Union for Conservation of Nature. 2017. *Gender-responsive Restoration Guidelines: A Closer Look at Gender in the Restoration Opportunities Assessment Methodology*. Gland, Switzerland: IUCN.

[IUCN] International Union for Conservation of Nature. 2015. *Paving the Way for Gender-responsive FLR: Enhancing Cultural Identity, Livelihoods and Ecosystems*. Gland, Switzerland: IUCN Global Gender Office.

Jackson C. 1996. Rescuing gender from the poverty trap. *World Development* 24(3):489–504.

Julia and White B. 2012. Gendered experiences of dispossession: Oil palm expansion in a Dayak Hibun community in West Kalimantan. *Journal of Peasant Studies* 39:995–1016.

Khadka M, Karki S, Karky BS, Kotru R and Bahadur Darjee K. 2014. Gender equality challenges to the REDD+ initiative in Nepal. *Mountain Research and Development* 34(3):197–207.

Larson AM, Dokken T, Duchelle AE, Atmadja S, Resosudarmo IAP, Cronkleton P and Selaya G. 2015. The role of women in early REDD+ implementation: Lessons for future engagement. *International Forestry Review* 17(1):43–65.

Lescourret F, Magda D, Richard G, Adam-Blondon A, Bardy A, Baudry J, Doussan I, Dumont B, Lefèvre F, Litrico I, et al. 2015. A social–ecological approach to managing multiple agro-ecosystem services. *Current Opinion in Environmental Sustainability* 14:68–75.

Leisher C, Temsah G, Booker F, Day M, Samberg L, Prosnitz D, Agarwal B, Matthews E, Roe D, Russell D, et al. 2016. Does the gender composition of forest and fishery management groups affect resource governance and conservation outcomes? A systematic map. *Environmental Evidence* 5(6). https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/s13750-016-0057-8.

Li TM. 2014. What is land? Assembling a resource for global investment. *Transactions of the Institute of British Geographers* 39(4):589–602.

McDermott MH. 2009. Locating benefits: Decision-spaces, resource access and equity in US community-based forestry. *Geoforum* 40(2):249–59.

McLain R, Guariguata MR and Lawry S. 2017. *Implementing forest landscape restoration initiatives. Tenure, governance, and equity considerations*. Presentation, McClain, 3 November 2017, Bonn, Germany: GIZ.

Mukadasi B and Nabalegwa M. 2007. Gender mainstreaming and community participation in plant resource conservation in Buzaya county, Kamuli district, Uganda. *African Journal of Ecology* 45(s1):7–12.

Mwangi E. 16 March 2017. Moving the needle: Advancing gender equality in Uganda. *Forests News.* Bogor, Indonesia: Center for International Forestry Research. https://forestsnews.cifor.org/48873/moving-the-needle-advancing-gender-equality-in-uganda?fnl=en.

Nederlof ES and Dangbégnon C. 2007. Lessons for farmer-oriented research: Experiences from a West African soil fertility management project. *Agriculture and Human Values* 24(3):369–87.

Nightingale A. 2002. Participating or just sitting in? The dynamics of gender and caste in community forestry. *Journal of Forest and Livelihoods* 2:17–24.

Pham T. 2016. *Gender mainstreaming in REDD+ and PES. Lessons learned from Vietnam*. Infobrief. Bogor, Indonesia: Center for International Forestry Research.

Peluso NL and Lund C. 2011. New frontiers of land control: Introduction. *Journal of Peasant Studies* 38(4):667–81.

Quisumbing AR and Kumar N. 2014. Climate-smart agricultural practices in rural Ethiopia. The gender-differentiated impact of land rights knowledge. *Climate Change, Collective Action, & Women's Assets.* Washington, DC: International Food Policy Research Institute.

Ramsay D. 20 November 2017. COP23 Special: Recognizing Gender Bias, Restoring Forests, Forests News. Bogor, Indonesia: Center for International Forestry Research. https://forestsnews.cifor.org/52685/cop23-special-recognizing-gender-bias-restoring-forests?fnl=en.

Rao N. 2017. Assets, agency and legitimacy: Toward a relational understanding of gender equality policy and practice. *World Development* 95:43–54.

[RRI] Rights and Resources Initiative. 2017. *Power and Potential: A Comparative Analysis of National Laws and Regulations concerning Women's Rights to Community Forests*. Washington, DC: Rights and Resources

Initiative. http://rightsandresources.org/en/publication/power-and-potential/#.WhuGBBOCzyl

Saeed AR, McDermott C and Boyd E. 2017. Are REDD+ community forest projects following the principles for collective action, as proposed by Ostrom? *International Journal of the Commons* 11:572–596.

Sarmiento Barletti, JP and Larson AM. 2017. Rights abuse allegations in the context of REDD+ readiness and implementation: A preliminary review and proposal for moving forward. *Infobrief* No. 190. Bogor, Indonesia: Center for International Forestry Research. https://www.cifor.org/library/6630/rights-abuse-allegations-in-the-context-of-redd-readiness-and-implementation-a-prelimnary-review-and-proposal-for-moving-forward/

Sarin M. 1995. Regenerating India's forests: Reconciling gender equity with joint forest management. IDS Bulletin 26(1):83–91.

Sijapati B. 2008. *Gender, institutions and development in natural resource governance: A study of community forestry in Nepal.* [PhD thesis]. London School of Economics and Political Science.

Turner B. 2014. Neoliberal politics of resource extraction: Moroccan argan oil. *Forum for Development Studies* 41(2):207–232. DOI: 10.1080/08039410.2014.901239

UN Women. 2014. *World Survey on the Role of Women in Development 2014: Gender Equality and Sustainable Development*. New York: UN Women.

UN-REDD. 2011. The Business Case for Mainstreaming Gender in REDD. Geneva: UN-REDD Program Secretariat.

Van Noordwijk M, Bizarda V, Wangpakapattanawong P, Tata H, Villamor G and Leimona B. 2014. Tree cover transitions and food security in Southeast Asia. *Global Food Security* 3(3-4):200–208.

Verdone M. 2015. *A Cost-Benefit Framework for Analyzing Forest Landscape Restoration Decisions*. Gland, Switzerland: International Union for Conservation of Nature.

Villamor G, Van Noordwijk M, Djanibekov U, Chiong-Javier ME and Catacutan D. 2014. Gender differences in land-use decisions: Shaping multifunctional landscapes? *Current Opinion in Environmental Sustainability* 6:128–133.

Wardell A and Fold N. 2013. Globalisations in a nutshell: Historical perspectives on the changing governance of the shea commodity chain in northern Ghana. *International Journal of the Commons* 7(2):367–405.

Westholm L. and Arora-Jonsson S. 2015. Defining solutions, finding problems: Deforestation, gender and REDD+ in Burkina Faso. *Conservation and Society* 13(2):189–199.

**December 2017**

Cover photo by Ulet Ifansasti/CIFOR
Women resin transporter crossing Way Bulak river in Penengahan village, Pesisir Barat regency, Lampung province, Indonesia.

CGIAR RESEARCH PROGRAM ON Forests, Trees and Agroforestry

The CGIAR Research Program on Forests, Trees and Agroforestry (FTA) is the world's largest research for development program to enhance the role of forests, trees and agroforestry in sustainable development and food security and to address climate change. CIFOR leads FTA in partnership with Bioversity International, CATIE, CIRAD, ICRAF, INBAR and TBI.

UKaid from the British people
Bioversity International
World Agroforestry Centre

cifor.org
forestsnews.cifor.org

**Center for International Forestry Research (CIFOR)**
CIFOR advances human well-being, equity and environmental integrity by conducting innovative research, developing partners' capacity, and actively engaging in dialogue with all stakeholders to inform policies and practices that affect forests and people. CIFOR is a CGIAR Research Center, and leads the CGIAR Research Program on Forests, Trees and Agroforestry (FTA). Our headquarters are in Bogor, Indonesia, with offices in Nairobi, Kenya, Yaounde, Cameroon, and Lima, Peru.