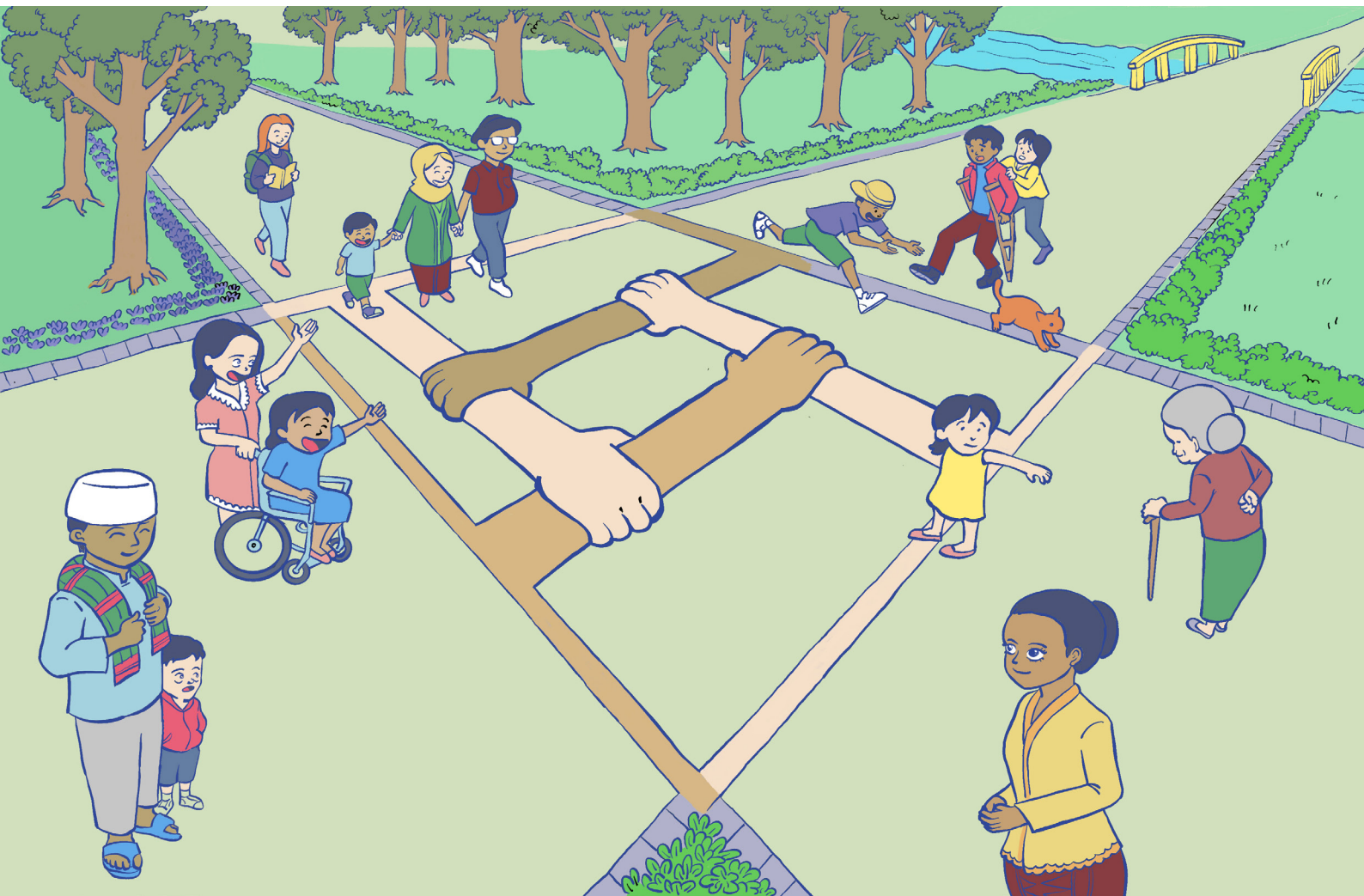


Good Practices: Integration of Gender and Socio-Economic Inclusion Considerations in Nature-Based Solutions

April 2024





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About FINCAPES

The Flood Impacts, Carbon Pricing, and Ecosystem Sustainability (FINCAPES) project is a collaborative, gender-responsive initiative funded by Global Affairs Canada. Over a 5.5-year period, jointly undertaken by the University of Waterloo's Faculty of Mathematics and Faculty of Environment, the project supports Indonesia in adapting to climate change, mitigating its impacts, and conserving biodiversity in a socially and economically sustainable manner. Aligned with Indonesia's priorities, FINCAPES enhances the nation's capacity in key areas: forecasting and mitigating financial impacts of climate-change-induced floods, promoting Nature-based Solutions for peatland and mangrove restoration, and strengthening climate finance policy frameworks with a focus on carbon financing mechanisms.

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List of Acronyms and Abbreviations

BRS	Basel, Rotterdam, and Stockholm Conventions
CBD	Convention on Biodiversity
ILO	International Labour Organization
IPTCs	Indigenous People and Traditional Communities
NbS	Nature-based Solutions
NBSAPS	National Biodiversity Strategies and Action Plans
NTFP	Non-Timber Forest Products
REDD	Reducing Emissions from Deforestation and Forest Degradation
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
WFP	World Food Programme



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Good Practices: Integration of Gender and Socio-Economic Inclusion Considerations in Nature-Based Solutions

1. Introduction

This overview of good practices in the integration of gender and socio-economic inclusion in Nature-based Solutions (NbS) is divided into two main sections. The first reviews the rationale and business case for integrating gender and socio-economic inclusion in Nature-based Solutions and outlines key criteria researchers, government personnel and civil society need to take into account in development of related initiatives. The second presents diverse NbS examples where gender and related socio-economic issues have been integrated effectively and identifies the key lessons learned from each. The annex also provides a review of how diverse environment-related international conventions and agreements address gender equality.

2. Why Integrate Gender and Socio-Economic Inclusion in Nature-Based Solutions?

There are four core reasons:

1. Climate change and biodiversity loss often has a disproportionately negative impact on diverse groups of women.
2. Women and men are affected differently by climate change and biodiversity due to the gender division of labour and underlying gender values.
3. Including the perspectives, needs and knowledge of diverse groups of women and men in the development and implementation of nature-based solutions leads to better results and more effective and sustainable natural resource management.
4. Women have proven to be active contributors and agents of positive change in NbS.

2.1 Disproportionate Impact

There is considerable evidence that climate change has a disproportionately negative impact on women. These negative impacts occur at the economic, physical and social levels. While climate change also has a negative impact on men, often the challenges women face, their specific needs, and voice are either overlooked or only given limited attention. This is due to underlying societal gender norms that limit women's participation and access to or ownership of assets related to use and management of natural resources. These same gender values and norms led to women's economic and social contributions being under-valued and often invisibilized. This is even though many women's livelihoods, especially those of rural and indigenous women, are heavily dependent on the management and consumption of diverse natural resources. Thus, women often face significant challenges when these resources are destroyed or depleted to a greater degree than men in a similar situation.¹

2.2 Economic Issues

Women's livelihoods are under threat from climate change due to their heavy reliance on natural resources to earn an income.² In part this is because women formally own less land than men. They thus, rely more on use of common land and resources shared by community members. Nature-based solutions therefore, need to consider how shifting land and natural resource use due to economic development or climate change affect women's access to common land and resources. For example, is the clearing of forests to make room for palm oil plantations which predominantly employ men leading to a reduction of the common lands and access to natural resources upon which women are dependent for their livelihoods and subsistence?

¹ Women 4 Biodiversity Organization, 2021, Advancing Women's Rights, Gender Equality and the Future of Biodiversity in the post 2020 Global Biodiversity Framework, p. 5

² Laura Helleqvist, N.D., Nature-based Solutions and their Potential for Empowering Women, Ppt, Gender Equality Thematic Group, Asian Development Bank



Another reason for the disproportionate economic impact of climate change on women is that women have fewer economic assets they can access to overcome the economic hardships climate disasters and biodiversity loss create. This is partially because in most countries **far fewer women hold formal title to land than men**. This is usually related to a perception that there is just one household head and these are predominantly perceived to be male even when the land concerned belongs to the family and is worked by both women and men. It also leaves women in a position where they often do not have independent access to credit they can access in a climate emergency as without formal land title they do not have formal collateral to offer. It also means that in some instances men can borrow against family land without credit authorities requiring the legal permission of the adult family members whose names are not on the formal title – i.e., mainly women. Depending upon the cultural background and norms the men may or may not consult with their spouses about these loans. Where they do not the financial commitments made unilaterally sometimes lead to loss of family land or extra economic stress for the female adult members of the household.

On average women also earn less than men in all countries. This is, in part, due to patterns of occupational gender segregation in which women tend to be concentrated in professions and types of work that pay less and have less status than those where men predominate. Women and children working in family businesses or on family farms also may not have direct control of the money earned through their labour. In the event of a climate disaster this means that women have less economic resilience to overcome the disaster.

2.3 Gender-Based Violence

Increased economic stress brought on by the negative impacts of climate change is also linked with an increase in different types of gender-based violence (GBV). This can take the form of verbal and psychological abuse, physical and/or sexual abuse and economic violence. The latter is considered to be **“any action or omission aimed at economic abuse or abusive control of finances, monetary rewards, or punishments of women due to their social, economic, or political condition”** and can occur in partner, family, work, or economic relationships.³

Climate disasters often cause internal displacements of people who have to flee from flooding or forest fires. Women and children (both male and female) who are evacuated face increased risk of predatory sexual abuse and trafficking for the purposes of sexual exploitation. Women may be asked to provide sexual services to access humanitarian assistance by diverse officials in charge of its distribution.

Luithui and Tugendhat also note that when indigenous and other women who rely upon natural forest products to survive and earn a livelihood lose access to the lands which produce these resources, they are often forced to migrate or look for seasonal labour on plantations. This can increase their exposure to sexual violence in both the workplace and public spaces since they have lost their traditional local social protection networks and community supports⁴, i.e., they are seen as easy targets as they have limited power and protection.

Economic Impact of GBV

In addition to the short- and long-term health impacts of GBV, International Monetary Fund research found that GBV also has an economic impact that can significantly lower the Gross National Product. This is due to economic productivity losses arising from both physical and psychological injuries. Their research also found that an increase in violence against women by 1% is associated with a 9% lower level of economic activity. It also found that,

3 Women's World Banking, 2025, "What is Economic Violence Against Women and Why Does It Matter?", <https://www.womensworldbanking.org/insights/what-is-economic-violence-against-women-and-why-does-it-matter/>

4 Luithui, S. and Tugendhat, H. 2013, Violence Against Indigenous Women and Girls: A Complex Phenomenon. Asia Indigenous Peoples Pact Foundation (AIPP) and Forest Peoples Programme (FPP). Available at: Violence Against Indigenous Women And Girls: A Complex Phenomenon.



“in the short term, women from abusive homes are likely to work fewer hours and be less productive when they do work. In the long run, high levels of domestic violence can decrease the number of women in the workforce, minimize women’s acquisition of skills and education, and result in less public investment overall as more public resources are channeled to health and judicial services.”⁵

The IMF also noted that previous studies have found domestic violence costs a given economy between 1 and 2% of GDP.⁶ Thus any significant stress factors that contributes to increased GBV such as loss of income due to drought, flooding, forest fires, or resource degradation exacerbated by climate change contributes to a country’s longer term economic losses. This, in addition to the justice and health issues related to GBV, make it imperative for nature-based solutions to track the impact of climate change on GBV and include GBV prevention components in related initiatives developed.

2.4 Social Impacts

Families displaced by agricultural developments such as the large-scale palm oil plantation developments are increasingly also losing access to traditional crops and occupations. This contributes to increased poverty and, in turn, has led to an increase in child marriages for girls in some countries and communities. Economically stressed families look for alternative ways to survive and to reduce the number of mouths they have to feed and are more likely to perceive girls to have less value than boys in terms of contributing to earning an income for the family.⁷

2.5 Health Impacts

Other health impacts of climate change include the fact that pregnant women face increased risks of gestational hypertension and premature delivery when in high stress emergency situations such as flooding.⁸ There is also a clear link between forest fire smoke and increased risk of respiratory infections for children, women and the elderly.⁹ For children and the elderly this is due to their more limited lung capacity. For women much depends upon their situation, e.g., if they live in homes with gaps in the walls or roof such as houses thatched or bamboo. This is often more an issue for poor women more since they are more likely to live in houses with poorer construction and less protection against smoke inhalation.

Biodiversity loss associated with conversion of forest and other ecosystems to other purposes can also increase the risk of diverse emerging diseases.¹⁰ The related change in habitat for wildlife also affects the spread of viruses and bacteria eliminating natural predators or creating conditions in which some bacteria and viruses thrive. This may, in turn, pose a higher risk for women and girls due to their close interaction and dependence on natural environments, land, and resources on these lands.¹¹ The burden of caring for ill family members generally falls to women and consequently, biodiversity loss can, in some circumstances increase women’s workloads and reduce the time they have to spend on activities that either generate income or a subsistence.

5 Rasmane Quedraogo and David Stenzel, 2021, How Domestic Violence is a Threat to Economic Development, IMF. <https://www.imf.org/en/Blogs/Articles/2021/11/24/how-domestic-violence-is-a-threat-to-economic-development>

6 Quedraogo and Stenzel, op. cit.

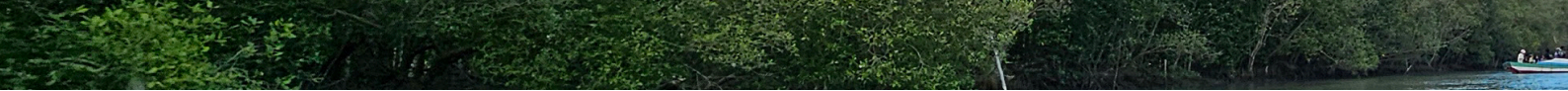
7 Luithuiand Tugendhat. op. cit.

8 Partash, Nasim, et al, “The impact of flood on pregnancy outcomes: A review article, Taiwanese Journal of Obstetrics and Gynecology”, Volume 61, Issue1, January 2022, page 10-14.

9 Dr. Syamsul Bahri Rivai, 2015, “Dampak Kabut Asap terhadap Ibu Hamil”. <https://www.riau.go.id>2016/02/05>

10 https://www.ipbes.net/sites/default/files/2020-11/201104_IPBES_Workshop_on_Diversity_and_Pandemics_Executive_Summary_Digital_Version.pdf

11 Women 4 Biodiversity Organization, op. cit., p. 6



2.6 Gender Bias in Economic Recovery and Revitalizations Initiatives

Many climate disaster support programs focus on assistance to male, household heads and either assume that this assistance will be equitably distributed within the family or only provide support to replace income derived from work traditionally done by men. This is particularly the case in the agricultural sector as for most agricultural products women and men divide up the different tasks involved, e.g., men tend to prepare the land, women to do the weeding and harvest processing. This gender division of labour differs from area to area and for different crops. What is critical to keep in mind is that when a crop is reduced or fails for climate change or disaster reasons **both** women and men lose their source of income, and not just male farmers.

2.7 Women as Part of the Solution

At the same time, despite strong evidence that gender inequality has a significant effect on environmental outcomes, “the specific roles, behaviours and preferences of women and, women’s knowledge and contributions” have not been adequately researched or considered in policy [and program] development.¹² Data still tends to be aggregated by community and by households and not by sex and gender and more men than women consulted in related research processes. This is, in part, because in some cultures women are not encouraged to speak up in public, and partly as there is still a tendency for policy responses to assume that a one size all approach works for all demographic groups. Thus, they do not yet use an intersectional lens to determine the potential differential impacts of these policies and related programming.

The Women4Biodiversity Organization has collected emerging evidence which shows that **women are powerful agents of biodiversity protection**. This is because of their unique roles and possession of knowledge on natural resources within rural and indigenous communities. They also found that when women hold secure rights to land, efforts to protect biodiversity and build climate resilience are more successful.¹³ This is, in part, as the different gender roles of women and men hold in diverse contexts means that each gender has different knowledge about plants and animals, their uses and management.¹⁴ Both sets of knowledge and perspectives are needed to inform effective natural resource management practice and policy. However, due to prevailing and pervasive gender values across many cultures and societies and a global pattern of most women holding more responsibility for family and household care than men, “**women are radically under-represented in decision-making spaces related to conservation, climate action, land governance, and land administration at all levels**”¹⁵ in many countries.

Women4Biodiversity Organization’s research also found that increasing women’s control over land increases their local-level decision-making ability.¹⁶ Ensuring that women have direct control over and rights to land and increasing their access to power as changemakers enhances their ability to persuade others in their households and communities to protect biodiversity¹⁷ and to share their specialized knowledge and experience as well as highlight their specific needs. This also applies at the global level where much of the debate and frameworks being established to change how countries address climate change and biodiversity loss are negotiated and established.¹⁸

2.8 Good Practices Needed

The World Bank Group outlines the different steps needed to incorporate gender and social inclusion considerations in NbS, with the first two steps focused on intersectional gender analysis.

¹² Ibid., p. 5

¹³ Women 4 Biodiversity Organization, op. cit., p. 5

¹⁴ Ibid, p. 6

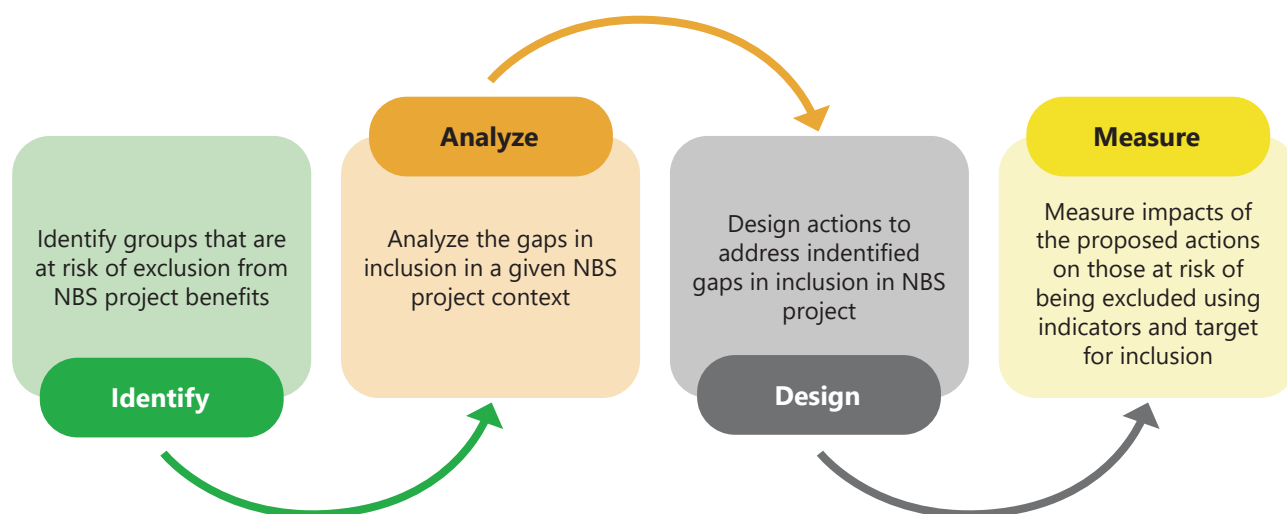
¹⁵ Ibid., p. 6

¹⁶ Meinzen-Dick et al, (2017) Women’s Land Rights as a Pathway to Poverty Reduction, International Food Policy Research Institute (IFPRI) available at: <http://www.ifpri.org/publication/womens-land-rights-pathway-poverty-reduction-framework-and-review-available-evidence>

¹⁷ Women 4 Biodiversity Organization, op. cit., p. 6

¹⁸ Ibid, p. 6

Figure 1. Steps to Incorporate Gender and Social Inclusion Considerations into Nature-Based Solutions



Source: Adapted from World Bank Group Social Inclusion Assessment Tool (World Bank, 2018) and Gender Tag Methodology (World Bank, 2021b).

Research, policies and programming focused on nature-based solutions need to be informed by intersectional gender analysis in their design and implementation. This involves ensuring that related research, policy and program design includes data collection and analysis that covers the following themes as part of the planning process:

1. Identification of key demographic groups by gender and other socio-economic identity characteristics such as age, income, education, ethnicity, ability status, etc.
2. Assessment of who does what by gender and demographic group for any economic activities either affected by climate change or that will be affected by proposed policies and programming to ensure that these address the specific work done by both women and men.
3. Assessment of who owns and controls which resources by gender and demographic group.
4. Assessment of who decides what related to the use and management of natural resources by gender and demographic group.
5. Assessment of who is adversely affected by climate change and climate disasters by gender and demographic group.
6. Assessment of who knows what about natural resource use and management by gender and demographic group.
7. Assessment of who will benefit from proposed changes in natural resource use and management by gender and demographic group.

3. Establishing Equity Principles

Given the powerful role diverse groups of women play in natural resource management and protection and the highly negative impact climate disasters and biodiversity have on diverse demographic groups at the community level, there is a growing call for organizations working on climate change adaptation and mitigation and biodiversity protection to establish a set of equity principles to apply to the design and implementation of related measures and policies. We have outlined several examples of this type of equity principles.



The UN framework for Reducing Emissions from Deforestation and Forest Degradation (REDD), for example, states that gender-responsive processes to reduce emissions from deforestation and forest degradation need to acknowledge that:

1. Actual and projected climatic changes will have differentiated impacts on diverse social groups depending on where they live, how they sustain their livelihoods, and the roles they play within their families and communities
2. Different gender groups hold valuable and differentiated knowledge, capacities, priorities, and constraints to adapt to climatic changes
3. Women – just as men – are key agents of change and must have a voice in climate action. Therefore, there is a need to recognize the rightful claims of women and men – particularly from marginalized groups, which are most vulnerable to climate change as climate action stakeholders.¹⁹

Biodiversity International builds on REDD's core acknowledgement and suggests the governments, organizations and communities working on climate change adaptation and mitigation and biodiversity protection adopt a social equity framework that includes three elements: 1) Recognition; 2) Procedural equity; and 3) Distribution.

1. Recognition:

Works to identify the unequal experiences and work done by diverse genders and socio-economic groups to ensure the rights of different socio-cultural groups or identities. This includes discrimination based on identities ascribed at birth, such as gender, ethnicity, age or physical or mental capacity and their intersections, which position women from certain groups at the lowest levels of the social hierarchy and limit their participation in decision-making. **Recognition requires diverse actors to upwardly revalue marginalized identities, recognize the legitimacy of their diverse stakes and knowledge systems related to a given issue, and to work to transform how the identities of marginalized groups are represented at a societal level.** It means working to avoid and counter stereotypes that limit the participation and valuing of the opinions, experiences and skills of specific female and male demographic groups as well as actively working to ensure that these diverse groups are included in the planning of NbS.

2. Procedural equity:

This refers to the **effective representation and participation** and influence of these socio-economic and gender groups in political processes, such as decision-making in environmental management initiatives. It requires institutionalization of values and norms that enable effective participation for all groups. In a political context, this can include finding ways to ensure at least 30% representation of women among candidates and elected positions at all government levels such as ensuring that women candidates receive training in campaign and electoral fund raising or ensuring there is a gender balance in appointments to relevant decision-making positions.

3. Distribution:

Refers to the way costs and benefits climate action and biodiversity conservation initiatives are shared, including the ability to decide over the mechanisms of delivery and allocation.²⁰ It means ensuring these costs and benefits are equitably distributed, e.g., not assuming that women will volunteer to work on climate action initiatives at the community level while men involved in similar actions are paid or that the work done by **both** women and men is taken into account in actions designed to mitigate the negative impacts of climate change and biodiversity loss.

¹⁹ Elias M; Ihalainen M; Monterroso I; Gallant B; Paez Valencia AM. 2021. Enhancing synergies between gender equality and biodiversity, climate, and land degradation neutrality goals: Lessons from gender-responsive nature-based approaches. Biodiversity International. Rome, Italy, p. 12.

²⁰ Elias et al, op. cit., p. 4.



Additional core equity principles policies and programme focused on NbS include that the need to acknowledge that:

1. Existing inequalities mean women often experience negative climate change impacts more adversely than men, both in urban and rural areas.
2. Women's needs and voices are limited due to societal gender norms and practices that curtail their participation in decision-making and their access to or ownership of natural resource assets, management and use.
3. Women are powerful agents of biodiversity protection and climate change adaptation given their unique knowledge about natural resources, particularly within rural and indigenous communities.
4. Partners and stakeholders need to use inclusive, participatory and consultative approaches which empower women strengthen their agency such as action research and community-led initiatives.

The equity principles outlined above are all compatible with the key approaches used in NbS which "embed different concepts such as ecosystem approach, REDD+, ecological restoration, green infrastructure, ecosystem-based disaster risk reduction through adaption and mitigation, [and] blue and green infrastructure".²¹

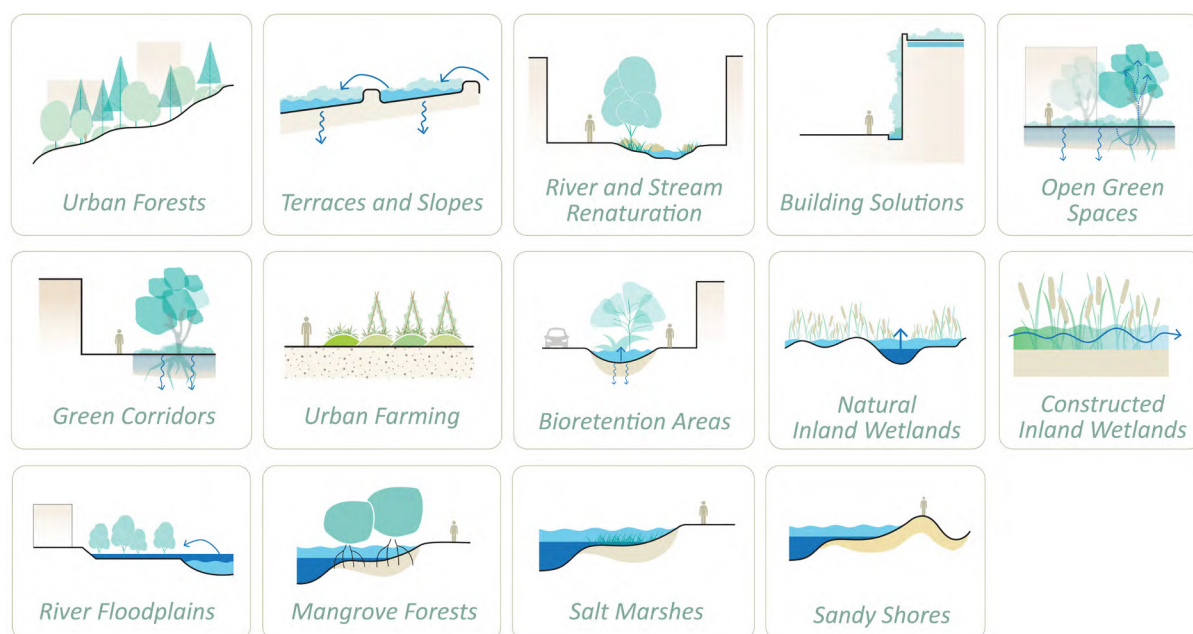
Intersectional gender analysis and approaches provide critical conceptual frameworks and tools to develop NbS in all these areas.

4. Entry Points for Integrating Gender into Nature-based Solutions

4.1 In Urban Areas

In its recently released guidance notes on gender and social inclusion in NbS, the World Bank Group identifies both the different areas in which one can do this in urban and rural areas and the strategic entry points for doing so. Fig. 3 below outlines the key NbS actions areas in urban contexts.

Figure 2. Categories of Nature-Based Solutions in Urban Areas



Source: World Bank Group, 2023, Integrating Gender and Social Inclusion Considerations in Nature-based Solutions: Guidance Note.

²¹ Oxfam, N.D., Building Stronger Ground: Women in Disaster Risk Reduction.



The key entry points for gender and social inclusion in these actions areas related to employment opportunities and capacity building include the following:

Table 1: Strategic Entry Points for Gender & Social Inclusion in Urban NbS
<p>Construction sector: NBS projects in urban areas can provide opportunities to target under-represented or marginalized groups for construction jobs. For example, globally women hold only 10.9 percent of construction sector jobs, and even fewer work on the front lines of job sites—approximately 1 in every 100 employees in the field. NBS projects can provide opportunities for women to break through multiple barriers to participation in the construction industry.</p>
<p>Ongoing maintenance: NbS-related maintenance activities may include pruning trees and bushes, watering plants, cleaning public spaces, area signposting, and pest control. Projects and govern-ments can readily assign asset maintenance and management responsibilities to a women’s or elderly adults’ group, cooperative, or organization and providing an opportunity for these groups to earn income and gain decision-making responsibilities regarding their common assets.</p>
<p>Social protection: Short-term public works focused on tree planting, etc. for cash or food can be integrated into urban NBS projects to create safety net solutions for economically vulnerable groups. Governments can also use this approach as a response to climate disasters such as flooding.</p>
<p>Specialized training: Governments can use training and job opportunities to close employment gaps in sectors where there are noticeable gender imbalances. For example, the 2020 Green National Highways Corridor Project in India prioritized women’s participation as employers in the transport sector to help create a more equitable gender balance. As some of the women involved did not fully meet technical requirements for this role the project provided training opportunities so that the women could acquire the necessary skills. In this case, this was done by encouraging technical skills training of 2,500 women in specialized areas, including bio-engineering solutions for road upgrading and maintenance.</p>
<p>Source: Excerpt adapted from - World Bank Group, 2023, Integrating Gender and Social Inclusion Considerations in Nature-based Solutions: Guidance Note.</p>

The World Bank guidelines also provides a summary analysis of the key gaps, actions and related change indicators that organizations can include in their NbS initiatives to ensure greater inclusion of women and gender equality issues. While developed for an urban NbS context, many of the gender issues identified are similar in more rural areas and can be used to inform initiative design.



Table 2. Employment and Capacity Building Opportunities in Urban-Based NbS

Gaps	Actions	Indicators
Employment Opportunities and Capacity Building		
<ul style="list-style-type: none"> Greater time poverty that women face because they spend more time with domestic and care responsibilities, which constrains their ability to participate in training and employment opportunities, especially in infrastructure construction and maintenance activities 	<ul style="list-style-type: none"> <i>Set up childcare facilities and community centers to reduce women's time burden and enhance participation in economic and community development opportunities</i> <i>Provide training and apprenticeship opportunities so that women can acquire skills in construction and maintenance projects</i> Adjust apprenticeship training schedules to facilitate women's participation Set targets for recruitment of women in urban green construction, rehabilitation, and maintenance activities 	<ul style="list-style-type: none"> <i>Share of women using childcare services during technical education, certificate training, and work hours</i> <i>Percentage of time women spend on unpaid childcare and household work</i> Percentage of women employed in construction and urban green maintenance works Share of young women in construction sector receiving apprenticeship opportunities to improve their skills
<ul style="list-style-type: none"> Lack of involvement of women in urban green development planning and management processes, which limits their capacity to influence and inform decision-making processes 	<ul style="list-style-type: none"> Provide leadership training and mentorship for young women to leverage opportunities to participate in public decision making Encourage women's placement in leadership roles and set quotas for their representation so that urban NBS project planning decisions will prioritize their needs 	<ul style="list-style-type: none"> Percentage of women participating in or holding leadership positions on urban development management committees Percentage of women consulted and involved in urban development and green policies, strategies, and plans at local and national levels

Source: World Bank Group, 2023, Integrating Gender and Social Inclusion Considerations in Nature-based Solutions: Guidance Note.

5. Examples of Nature-Based Solutions

The two main ways to address intersectional gender issues in Nature-based Solutions are to support projects or initiatives that specifically target women and/or to integrate gender equality issues and targets/results into an NbS project which works with multiple demographic groups. The good practices that follow provide examples of both for forest for coastal and forest focused NbS. This summary also includes an outline of key gender issues to consider in the design of coastal nature-based solutions.

Women Specific Livelihood Initiative: Seaweed Farming

In the Philippines, in one community women have set up a seaweed harvesting plantation in which they reuse soda bottles to serve as floats for long strands of fishing line which are anchored to the ocean floor with corner poles and sandbags. This both helps keep the cost of the plantation more affordable and reduces the amount of plastic dumped into the ocean.

The women tie branches of Eucheuma seaweeds to the fishing line and visit the plantation daily to clean off debris and slit. When they have advance notice of storms, they drop the seaweed lines below the waves to help prevent damage. However, when there is breakage have found that every part of the plantation equipment is easy to replace. It takes two to three months from the initial set up for the seaweed to be ready to harvest. In the interim, the plantation also enhances the natural habitat for some species of fish.²²



Source: Excerpt adapted from - Oxfam, N.D., Building Stronger Ground: Women in Disaster Risk Reduction

Lessons Learned: Supporting women's cooperatives can be an effective way to build alternative more sustainable livelihoods for women since it provides them with some economies of scale with regard to building related infrastructure, provides greater opportunities for women to be included in decision-making and provides a central point for marketing. The latter gives the women involved greater bargaining power than if they were growing and selling seaweed as individuals.

²² Oxfam, op. cit.



Women Specific Livelihood Initiative: Sea Cucumber Farming

Women assemble fishing nets in PVC pipes which serves as floats for the sea cucumber cages which are secured to the ocean floor with corner poles and sandbags. The Philippines Bureau of Fisheries and Resources (BFAR) provides the women with juvenile sea cucumbers. Once set up, the women members of the sea cucumber collective visit the cages three times a week to do size assessments. As with the seaweed farming, when a storm approaches the women are able to drop the nets, secure them with ties and anchor them below the waves to prevent damage. The equipment is also easy to replace in case of damage. The sea cucumbers are ready to harvest after six to eight months.

Source: Excerpt adapted from - Oxfam, op. cit.

Lessons Learned: Women often have limited capital with which to start up a new NbS-related business. Governments are able to support these new business start-ups by providing either capital, equipment or supplies to help women overcome this challenge. Governments can either set this type of support up as a grant program or work on a cost recovery basis by providing low or no interest loans to the women's cooperatives/collectives for the purchase of their start-up materials.

The World Bank guidelines previously cited also outline strategic entry points for integrating gender equality considerations for coastal NbS. These focus on creating new employment opportunities for women based on the premise that **the success of NbS has to be closely linked to livelihoods and that women's livelihood options are often overlooked in NbS**

Gender-Responsive Design Features for Coastal NbS

Sustainable resource management activities in coastal areas: These interventions protect areas from further encroachment, remove and dispose of debris and invasive species, and replant natural barriers. They offer multiple opportunities to create employment for diverse groups of women and men and can also be used to target particularly vulnerable demographic groups.

Small-scale infrastructure projects: NBS projects can also address infrastructure needs of local communities. In São Tomé e Príncipe, for example, the World Bank in its road maintenance training for community groups is introducing innovative techniques related to climate-resilient roads and coastal protection. The project also promotes women's employment in the road sector, providing an opportunity to earn an income and become economically empowered.

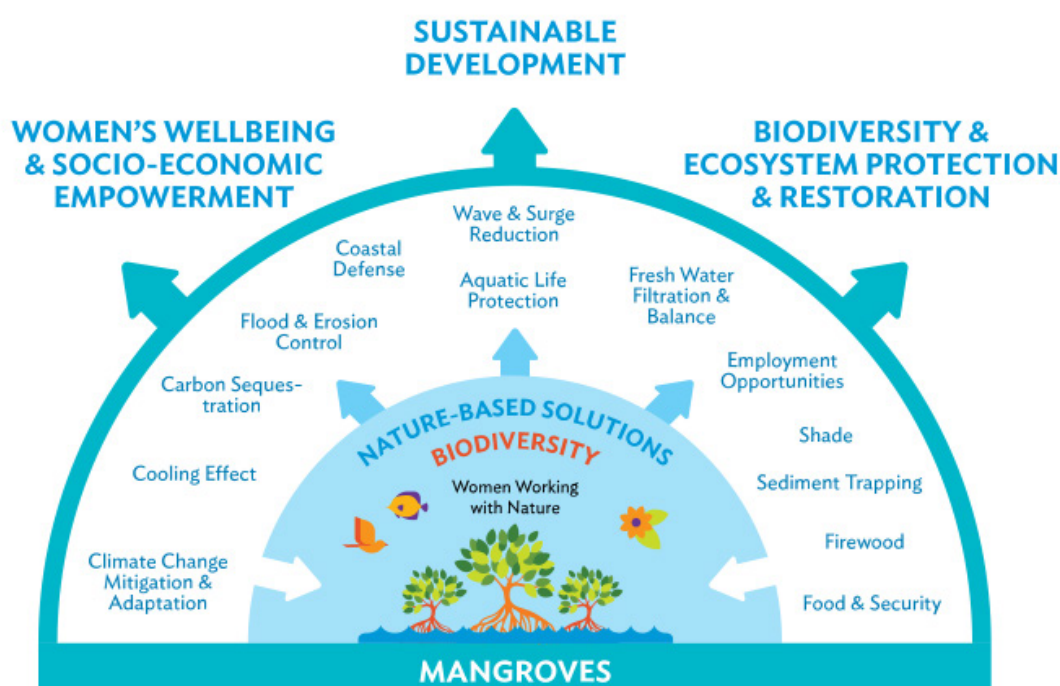
Seafood sourcing and production: Overfishing and unmanaged use of resources results in serious environmental imbalances, with economic consequences for coastal communities. Promoting sustainable fisheries and aquaculture through NBS can provide a source of income for women and, more broadly, for traditional coastal communities. In Bangladesh, the World Bank is improving management of coastal and marine fisheries and aquaculture through green infrastructure technologies for seafood production and activities that provide broader ecosystem services and coastal defenses, including restoration of mangroves, seagrass, and oyster beds. This project also addresses gender gaps by facilitating leadership training for women in fisheries management.

Source: Excerpt adapted from - World Bank Group, 2023, Integrating Gender and Social Inclusion Considerations in Nature-based Solutions: Guidance Note.

5.2 Gender Mainstreamed Approach: Mangroves for the Future Project

The Mangroves for the Future project outlines a framework for positive change which includes women's wellbeing and socio-economic empowerment as one of the project's three core objectives that are to be applied to all aspects of the project.

Figure 3. Framework for Inclusive Development in Nature-based Solutions



Source: Mangroves for the Future Ppt, N.D., Asian Development Bank

To do this effectively from a gender mainstreaming perspective the Mangroves for the Future project data observed that what is needed are actions that contribute to:

- Women's Agency, Capacity and Leadership;
- Equal Access to project resources and opportunities; and
- A need to standardize gender integration approaches.²³

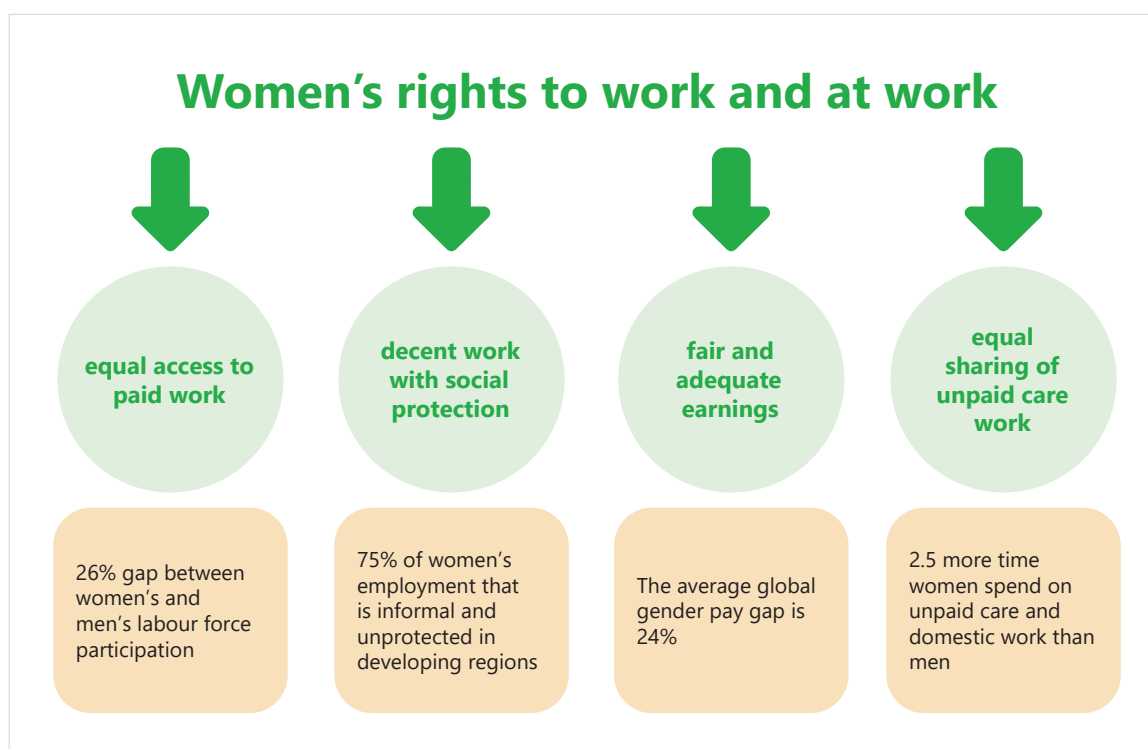
5.3 Good NbS Practices related to Forestry and Wetlands

ILO Local Resource-based Approach to NbS

The International Labour Organization (ILO) model focuses on infrastructure development and job creation related to NbS. It also provides examples of how they have applied this in forestry and wetland management projects. The ILO model is based on the premise that NbS initiatives need to address the gender-based labour issues outlined in Fig. 5 below to both help these initiatives achieve their goals and objectives effectively as well as contribute to increased gender equality.

²³ Helleqvist, op. cit.

Figure 4. Labour Issues Affecting Women that Can Influence NbS Initiatives



Source: Maria Teresa Gutierrez, ILO Senior EIIP Technical Specialist, 2022, Nature-Based Solutions that Promote Gender Equality- Ppt.

The ILO has identified the following as actions that NbS initiatives need to do to address gender-related labour issues. Ensure that:

- Women have equitable access to direct wage employment
- There is an appropriate gender balance in participation
- The initiative addresses any constraints on the supply of women's labour in its design and implementation and facilitates women's.
- Infrastructure assets and services produced through public works programs are responsive to the needs of women, as well as to those of men.
- Women are fully involved at all project stages of the project, including its identification and the negotiation of the community contributions (labour, materials, financial...) and any subsequent decision-making level
- Women are included as paid labourers during implementation and in maintenance arrangements.²⁴

The ILO observes that women's close relationship with natural resources use and management (often through communal work) means that women have many skills and experiences to share and a vested interest in any NbS outcomes. They also note that following this **gender-inclusive approach leads to possible high returns in terms of project performance, improved maintenance, household well-being and women's empowerment, and adds no significant cost.**²⁵

²⁴ Maria Teresa Gutierrez, ILO Senior EIIP Technical Specialist, Source: Maria Teresa Gutierrez, ILO Senior EIIP Technical Specialist, 2022, Nature-Based Solutions that Promote Gender Equality- Ppt

²⁵ Gutierrez, op. cit.



The two ILO examples which follow use an approach to NbS which uses larger public works programs focused on NbS to target inclusion of specific demographic groups.

Targeting of Specific Demographic Groups: Working for Water Expanded Public Works Program

Working for Water (WfW) operates under the South African Department of Sustainable Land Based Livelihoods. This includes work on wetlands, coastal areas and fire prevention and response. The program focuses on the:

1. Removal of invasive plant species
2. Rehabilitation of wetlands
3. Prevention and combatting of wildfires
4. Restoration and cleaning of coastal areas
5. Forest management.

Through this work the participants have cleared over 3 million hectares of invasive species and made it possible to provide 50 million cubic meters of water a year (ILO, 2018; WWF, 2019b).

The ILO observed that clearing weeds is extremely labour intensive and provides jobs and economic empowerment for unskilled or marginalised communities where unemployment is highest.

- Over the course of the program, WfW has provided training and employment to over 300,000 people.
- In the 2019- 2020 financial year, more than 60,000 jobs were created
- 70 % of these jobs went to young people, 55% to women and 1.5% to people with disabilities

The program also supported health and reproductive care, rehabilitation for convicted criminals, childcare services, HIV/AIDS awareness courses, and savings programs. As such it served to empower both women and men in diverse ways while rehabilitating the environment in wetland and coastal areas and strengthening community fire prevention and response capacity.

Source: Excerpt adapted from - Maria Teresa Gutierrez, ILO Senior EIIP Technical Specialist, Source, 2022, Nature-Based Solutions that Promote Gender Equality- Ppt.

Gender Mainstreamed Approach: Gonaives Watershed Protection, Haiti, UNDP/WFP/ILO



- Constructed 2'563 km of anti-erosive ditches with reinforced stone barriers covering 1,800 hectares of slopes
- Planted 210,000 tree seedlings on slopes
- Planted 630,000 vetivers seedlings in anti-erosion ditches
- 2,147,324 w/d equivalent to 35,785 jobs created over 5 years for a total cost of 14M USD
- 55.4% of those employed were women



Source: Gutierrez, op. cit.

The following five examples of NbS forest-related projects highlight different ways of including and/or focusing on gender equality.



The Yedani Project, Ethiopia: Women's Role as Forest Protectors

This project is located in the heart of Ethiopia in the Biftu Beri region of the Bale Mountains. It works to prevent deforestation by supporting local forest users and government to manage forest management responsibilities and benefits. Its goal is to reduce deforestation by 70% across 333,924 hectares of tropical forest during the project's duration. With project support local farmers and forest users in the Bale Eco-region are able to develop forest-friendly businesses.

The project supports an all-female group of forest protectors who patrol and monitor the status of the forest. The women are members of a forestry management cooperative through which they gain receive training and take part in awareness programmes that provide them with the skills and motivation to protect and enhance valuable forest resources. Their role is to watch for signs of deforestation and reports risks and forest damage to a local committee. The women also take part engage in weekly meetings where they discuss how to save money and strengthen their small businesses and pass on these teachings to encourage other women in the area to join similar cooperatives. As a part of their work to minimise pressures on the forest, with project support, the group has been exploring use of fuel-saving stoves to reduce firewood use.

Source: Excerpt adapted from - Hannah Lawton, 2022, International Women's Day: How Nature-based Solutions Support and Empower Women, <https://eco-act.com/international-womens-day/international-womens-day-2022/>

Lessons Learned: This project uses a gender targeted approach which focuses on women as defenders of the environment, capitalizing and building on their knowledge of and commitment to protection of local natural resources. It combines this with measures designed to enhance women's livelihoods which serves to further reinforce their desire to protect the environment since they are able to do so while increasing their incomes.

Enhancing Women's Livelihoods: Anourek Cambodia Forestry Project:

This project in South-West Cambodia was set up to address an increase in wildlife hunting and burn cultivation that was destroying thousands of hectares of globally significant ecosystems. Through a forest protection and community support approach, it now protects 497,000 hectares of tropical rainforest and more than 27,000,000 tons of CO₂e have been avoided to date. Community and government partnership that benefit local communities with sustainable income generation is a core operating principle of the project.

As a part of this approach the project empowers local women through their participation in Community-Based Ecotourism. This work has contributed to the recruitment of local women into decision-making positions and provides opportunities for capacity-building related to ecotourism. The project promotes gender equality while providing women, including those from ethnic minorities, with their own sources of income. Forty-four percent of the positions in the project's ecotourism activities and agricultural project management are currently held by women. This is quite a high rate in the Cambodian context and has contributed to the project's success.

Source: Excerpt adapted from - Lawton, op. cit.

Lessons Learned: This project focuses on inclusion of women in both decision-making and livelihood enhancement, both key areas to empower women and both areas where women have been traditionally under-represented. By capitalizing on the under-recognized resource of women's labour and leadership, the project greatly increased its effectiveness and results.



Research Findings on Gender-Responsive Collaborative Forest Management

Diverse studies have shown that use of gender-responsive collaborative forest management in India (e.g., Agarwal, 2015) clearly demonstrate that women's effective participation in decision-making influences the nature of decisions made in community forest user groups. This includes the rules regarding forest use and how these should be implemented, has resulted in fewer violations against these rules, and increased the likelihood of improved forest condition. Various cases illustrate that women's participation in forest governance and management are positively linked with ecological conditions, including improved forest growth (greater biomass regeneration) and ability of forests to store carbon, and increase forest-based livelihood benefits. In India, another study found a slight increase in the value of non-timber forest products in forests managed by all-female user groups compared to those managed by male-dominated groups. Likewise, in Nepal, women's active participation in community forest user groups was found to promote more cooperative, sustainable management practices as well as improved incomes from the forest.

Ensuring that there are mixed-gender community forest groups has also been linked to better community compliance with rules for resource use as well as conflict resolution, improved patrolling and rule enforcement, greater accountability and transparency, more equitable access to resources, and more effective resource conservation. Promoting more equitable voice and influence can also generate broader buy-in and enhanced capacities, thereby improving prospects for socioeconomic development and positive environmental outcomes.

To foster this more inclusive approach to community forest management, some organizations promote the use of Adaptive Collaborative Management (ACM). ACM is:

- characterized by conscious, facilitated efforts among such groups to communicate, collaborate, negotiate and learn collectively.
- Involves actors at multiple scales, including community forest user groups at the community level and district level officials
- Is based on the premise that "effective participation in local resource governance can be supported through the creation of knowledge-sharing and discussion spaces, in which diverse actors engage in dialogue and social learning around collective resource management". This helps the different actors involved feel comfortable talking to and learning from each other and involves setting up a combination of formal and informal meetings to support this process. This includes setting meeting times when **both** women and men are available to attend.
- Also involves strengthening women's capacities by increasing their knowledge, skills, leadership, and confidence and by supporting changes in gender relations, through supporting mixed-gender dialogues that address gender issues and encouraging men to champion women's empowerment.

Source: Excerpt adapted from - Marlène Elias, Markus Ihalainen, Iliana Monterroso, Bryce Gallant, Ana Maria Paez Valencia, 2021, Enhancing synergies between gender equality and biodiversity, climate, and land degradation neutrality goals, Alliance of Biodiversity International and the International Center for Tropical Agriculture.

Lessons Learned: The key operating principles of Adaptive Collaborative Management outlined in the third paragraph in the text box above provide a blueprint for how to set up and apply this approach. In addition to ensuring inclusive meetings and consultations, the success of this approach depends upon ensuring that the related discussions regarding natural resource management include themes related to changing unequal gender relations and building of women's skills so that they are able to take part in community discussions and meetings with local officials full and with confidence so that their perspectives and potential solutions are included in the process.



Links between Improved Land Tenure for Women and Reduced Carbon Emissions

REDD+ is a global initiative under the United Nations Framework Convention on Climate Change (UNFCCC). Its aim is to reduce greenhouse gas emissions by curbing deforestation and forest degradation, conserving and enhancing forest carbon stocks through rehabilitation of ecosystems and reforestation, and sustainably managing forests. To do this REDD+ relies on countries taking actions at the national level to create conditional, performance-based incentives to prevent forest conversion and enhance forest carbon stocks. In REDD+ countries, local populations are rewarded through market-based mechanisms or public services for conserving and sustainably using lands and forests, based on verified reductions in emissions in the forest sector. In other words, REDD+ strongly promotes the adoption of nature-based solutions.

Gender-responsive REDD+ can lead to improved environmental outcomes across areas of concern to the Rio Conventions in several ways. For one, REDD+ processes have highlighted the need for more secure rights to land and resources among women and marginalized groups as a precondition for more sustainable land management decisions. Several studies have shown the positive links between tenure security, including women's rights to land, and incentives and capacities to invest in sustainable land, soil, and environmental management. A global review of 117 studies by Tseng et al. (2021) in 2/3's of the cases they studied found a **positive relationship between improved land tenure security and environmental outcomes, including more sustainable agricultural practices, improved forest condition, and investments in agroforestry and forest conservation**. In an analysis from nine countries, Tseng et al. (2021) also find that **in** 72% of the cases studied, enhanced land tenure security has positive effects on women's empowerment.

Source: Excerpt adapted from - Elias, et al, 2021, Enhancing synergies between gender equality and biodiversity, climate, and land degradation neutrality goals, Alliance of Biodiversity International and the International Center for Tropical Agriculture.

Lessons Learned: The key takeaway from Tseng et al's research underscores the points raised earlier in this report that women's more limited access to formal land title acts as an impediment to sustainable natural resource management. When NbS initiatives work to support women's acquisition of land title for land on which they work or recognize that women have a decision-making role at the community level even though they are often not officially considered to be household heads, it contributes to more sustainable natural resource management.



Mangrove Protection and Women's Livelihood Enhancement— Forest Sector Modernization and Coastal Resilience Enhancement Project in Vietnam (World Bank Group)

Climate change is increasingly affecting Vietnam's development. With 3,260 kilometers of coastline, the country is highly exposed to rising sea-levels. Climate change impacts on the Vietnamese economy and national welfare are already significant— about 3.2% of gross domestic product in 2020. To strengthen the resilience of coastal communities, the World Bank approved the Forest Sector Modernization and Coastal Resilience Enhancement Project, which addresses gender gaps in coastal communities, including the generally lower incomes for women than men, women's heavier workloads in agricultural work and housekeeping chores, and their limited access to vocational training and extension services in farming and aquaculture— despite their over-representation in these areas of work.

Several project components include actions to reduce gender inequalities tailored to the local context. One component focuses on interventions for coastal forest development and rehabilitation; another seeks to increase generation of sustainable benefits and livelihoods from coastal forests. For both components, gender-specific actions were identified to create opportunities for women, including support for women-led microenterprises (e.g., tree seedling nurseries, ecotourism), providing targeted capacity building on tree planting for women, improving rural road networks to address women's needs, and supporting women's membership and leadership roles in community forestry groups. The project also prioritized women for mangrove planting and management activities. As a result, female workers account for up to 80% of the labor mobilized for coastal forest planting in some provinces.

In the project's livelihood enhancement opportunities, women were involved from the early consultation stage to the design of interventions that could benefit them directly with consideration of the local context and the role of women in income-generating activities. Specifically, the project provided livelihood grants to local cooperatives that engage with women to support demand-driven livelihood activities such as organic agriculture, animal husbandry, aquaculture, apiculture, and handicraft manufacturing.

Source: Excerpt adapted from - World Bank Group, 2023, Integrating Gender and Social Inclusion in Nature-Based Solutions.

Lessons Learned: The World Bank example above takes another approach and uses actions that target women and address their specific needs and capacities within a larger project. To do this, the project needed to tailor different project components to the local context. Intersectional gender analysis plays an important part in determining the optimal solutions for each context. An important part of this was the inclusion of women in the project's planning and design to help determine their priority needs and what the possibilities for change were.

5.4 Intersectional Approaches to NbS: Inclusion of Indigenous Peoples

Increasing Indigenous People's Involvement in Sustainable Forest Management: The Brazil Dedicated Grant Mechanism Project

In Brazil, expansion of modern agriculture in forested regions has degraded land and increased risk of drought and soil erosion, with significant consequences for the survival of Indigenous people and traditional communities (IPTCs). As part of the Forest Investment Program's special window to provide grants to IPTCs, the World Bank approved the Dedicated Grant Mechanism for Indigenous People's Project in Brazil. The project's design integrates inclusive actions to create opportunities, including small grants for community-based sustainable livelihood activities and targeted training to strengthen IPTCs' voice in natural resource decisions.

In addition, its results framework set several gender and socially inclusive indicators such as percentage of female beneficiaries of community-based subprojects satisfied with technical assistance provided, number of organizations representative of IPTCs provided with capacity-building support to improve management of forest and land uses and share of trained forest users that are ethnic minorities and women.

Evidence from the project's evaluation shows that the subgrants enabled 25 IPTCs to implement 60 initiatives; women designed and managed 13 of these sub-projects. Similarly, the capacity-building activities helped 190 IPTC organizations acquire the necessary leadership and negotiation skills to participate actively in local, national, and global natural resources and climate change-related decision-making bodies and programs. It also facilitated their representation National Steering Committee for Dedicated Grant Mechanism in Brazil, including three women who have been successively chosen to head the National Steering Committee.

Source: Excerpt adapted from - World Bank Group, 2023, Integrating Gender and Social Inclusion in Nature-Based Solutions.

Lessons Learned: The community-focused approach to implementing this project provided several opportunities for IPTCs, especially women in these communities, which served to counteract the challenges they face in sustainable livelihoods, forestry management, and climate change-related decision-making processes.²⁶ The internal grant mechanism also allowed indigenous communities to make their own choices about which activities they considered a priority to work on. This combined with an overall project approach to strengthen the voice of indigenous peoples, particularly indigenous women, also were critical success factors.

²⁶ World Bank Group, op. cit.



5.6 Use of Media in NbS

Use of Media in Gender-Inclusive Nature-based Climate Solutions

The On-Air for Gender Inclusive Nature-based Climate Solutions project aims to ensure a just, gender-responsive enabling environment for nature-based solutions to help local communities address their climate adaptation needs. It does this by providing a platform for local sub-Saharan African communities to express their climate change adaptation needs, particularly for women and youth. It does this by using Farm Radio International's wide radio network and its innovative approaches to design, produce and air gender-responsive, interactive and local radio programs. The High Impact Radio Series partnered with 20 radio stations to produce broadcasts in Burkina Faso, Côte d'Ivoire, Ethiopia, Ghana, Uganda and Zambia.

Project activities include:

1. Engaging with climate adaptation specialists, in-country stakeholders, women-led rights groups and relevant knowledge partners in the targeted communities to extract content priorities relevant to their expressed climate change adaptation needs.
2. Designing, producing and airing gender-responsive, interactive High-Impact Radio Series to significantly expand access to information about nature-based solutions for climate adaptation across sub-Saharan Africa.
3. Engaging with the Canadian public to inform them about the adaptation needs of countries in sub-Saharan Africa and how nature-based solutions can be part of the solution.

Source: Excerpt adapted from - <https://w05.international.gc.ca/projectbrowser-banqueprojets/project-projet/details/P01052200>

Lessons Learned: Interactive radio and TV media have proven to be highly effective approaches to facilitate change related to gender relations and attitudes. Combining this approach to foster increased interest in gender-responsive nature-based solutions focuses change on multiple fronts so that the gender-responsive approaches reinforce nature-based approaches and vice versa.

5.7 Women-Focused Value Chains

Research on Women's Role in Production of Non-Timber Forest Products

Development of women-dominated non-timber forest product (NTFP) value chains can provide economic incentives for restoring and conserving greater species diversity than those that focus only on typically male-dominated mainstream commodities, such as various timber species. This, in turn, can support more biodiverse restoration and resource management options as well as climate change mitigation and adaptation through more diversified livelihood portfolios.

The development of women-coded value chains can increase the flow of economic benefits to women and incentivize their contributions toward sustainable land management while diversifying and enhancing household livelihood portfolios. For example, the commercialization of NTFPs that are primarily traded by women, such as shea nuts and butter or néré seasoning in West Africa, can provide income-generating opportunities to women that motivate the protection of standing trees or forests.

Entry barriers and inequitable access to service provision may constrain rural women's abilities to adopt sustainable land-use practices. In Ethiopia, for instance, Tsige et al. (2020) found that women farmers' capacity to adopt climate-smart agriculture was constrained by their limited access to cooperatives, extension services, and credit. Conversely when attention is not paid to women's roles and practices it can undermine the success of forest protection initiatives. For example, in Cameroon, women firewood producers who relied on machetes rather than chainsaws often cut younger (and thinner) mangroves.

Conversely, when women's contribution to value chains is considered it can have a positive impact on sustainable development. For example, the promotion of women-only cooperatives through an organic coffee certification scheme in Guatemala incentivized the uptake of more sustainable production practices while yielding improvements in women's skills and social status.

Source: Excerpt adapted from - Elias et al, op. cit. pp. 16-17.

Lessons Learned: Value chain development efforts that explicitly address inequities and enhance women's competitiveness in value chains, such as through enhanced technological capabilities or access to services, can help unlock synergies between equity and sustainability in rural value chains.²⁷ These, in turn, contribute to better treatment of the land and other natural resources.

²⁷ Elias et al, op. cit. p. 17.



5.8 Focus on Women's Participation and Contributions

An important part of the change in mindset needed related to NbS is to see women as agents of change as opposed to simply as vulnerable groups. When there is this shift, women's participation has been shown to improve the outcomes of nature-based solutions and to more sustainable management of diverse natural resources.

Supporting Women's Agency and Participation

The African Women's Network for Community Management of Forests (REFACOF) has been promoting the influential participation of women in REDD+ processes. It is a network of women involved in sustainable forest resource management in Africa and serves as Cameroon's civil society REDD+ and climate change platform coordinator. The government of Cameroon has shown interest in the platform's contributions to the national REDD+ strategy, and consequently, the platform has been able to influence high-level decision-making processes. The decentralized platform's Coordination Unit spans the village, district, and regional levels, and at each level, a seat has been reserved for a woman as well as an Indigenous People's representative. Across levels, 30 to 40 % of seats in this influential platform are occupied by women. This gives them a formal voice in REDD+ policy, programming and processes. REFACOF has also built strong networks with powerful actors, including customary authorities, parliamentarians, and mayors, to raise their sensitivity to gender issues and have them champion gender equality.

Source: Excerpt adapted from - Elias et al, op. cit. pp 11-14.



The following examples showcase the role of women as defenders of biodiversity and the impact that their participation is having in their respective communities.

Examples of Community Activism Led by Women

Example 1: In Kenya, the Enkutuk Entim Community Forest Association, a collective community forest user group formed in 2005 includes the Paran Women Group in Ololunga, Narok County. They have brought women groups from Maasai and Ogiek communities bordering Mau forest in Narok county together. These groups are now working together to protect and restore forest ecosystems in a coordinated and collective manner.²⁸

Example 2: In the Dolakha district of Nepal, women play essential roles in community forests. They have successfully used their knowledge and experience to develop effective strategies to conserve, manage and use forests. As a result of their success women are increasingly being recognized as important actors engaged in biodiversity conservation in this region.²⁹

Example 3: In the state of Queretaro in Mexico, in the Charape-La Joya Ejido community, Eulalia Moreno and her two daughters founded Women & Environment. This is a community-based initiative supported by the Autonomous University of Queretaro that works to improve the livelihoods of the town's residents through a micro-business focused on sustainable use of plants. In 2016, Women & Environment, in collaboration with the Spanish Company Provital S.A, inspired by the Nagoya Protocol guidelines, initiated the path to obtain the Internationally Recognized Certificate of Compliance for access to a plant useful for cosmetics purposes and its associated traditional knowledge. By 2017, after completing all the accreditation processes, Provital S.A. became the first cosmetic ingredients supplier worldwide to fully fulfil Nagoya Protocol requirements, and initiated work with the community and the University.

Example 4: In Indonesia, in the isles of Kei, southeast Moluccas, women collect molluscs and shells in the intertidal area of what is now part of a regional Marine Protected Area. This practice, known as bameti follows a system of sustainable management of marine biodiversity in coastal areas based on women's traditional practices and local knowledge. Women also work as small-scale fish traders (papalele). To maintain local fish stocks in a sustainable way, the women monitor changes in the availability and abundance of species, and when needed, take action for fish species restoration and conservation, and place temporary limitations in the use.

Source: Excerpt adapted from - Women4Biodiversity, op. cit.

Overall Lesson Learned: The over-riding lesson in all the examples provided throughout this report is that women's participation in terms of decision-making and inclusion of their livelihoods, knowledge and experience related to natural resource management make significant contributions to NbS. Highlighting these factors and approaches in any NbS based on the local context, whether one uses a mainstreamed or targeted model contributes to both increased gender equality and more sustainable natural resource use and management.

²⁸ Women4Biodiversity, op. cit., p. 9.

²⁹ Ibid., p. 9.



Annex 1: Gender in Biodiversity and Related Conventions

Gender in the Convention on Biodiversity

Over the last 20 years there have been over 50 Convention on Biodiversity (CBD) decisions that have strengthened its mandate to adopt an approach that reflects gender considerations. This includes adoption of the 2015-2020 Gender Plan of Action by the Conference of the Parties at its twelfth meeting which aimed to reinforce the link between gender equality and biodiversity.³⁰

The Women4Biodiversity organization notes that one objective of the Gender Plan of Action is to mainstream gender into national biodiversity strategies and action plans (NBSAPs) and that these action plans stand as the principal instrument for implementing the Convention at the national level. As a part of the updating process of these NBSAPs, Parties are requested to mainstream gender considerations, where appropriate, in the implementation of their Plans and its associated goals, and in keeping with its Aichi Biodiversity Targets in the Strategic Plan for Biodiversity 2011-2020 targets and indicators. The Strategic Plan also indicates that capacity-building for gender mainstreaming should be supported.³¹

Women4Biodiversity notes that of the Aichi Biodiversity Targets, Target 14 is the only one to address gender issues overtly. This target calls for the needs of women, indigenous and local communities, and the poor and vulnerable to be taken into account in the restoration and safeguarding of ecosystems, however, there are no other provisions within the 2011-2020 Strategic Plan that outline how gender should be mainstreamed.³²

Women4Biodiversity has also compiled a summary of the gender considerations in diverse international conventions and agreements supporting nature-based solutions.

Gender-related Clauses and Statements in International Environmental Conventions

Agenda 21 (1992)

The 1992 Earth Summit, or UN Conference on Environment and Development (UNCED), marked a pivotal moment embedding gender equality considerations in environmental decision-making on the global stage. The Rio Declaration recognized the important role of women in environmental management and development, and Agenda 21 called for sex-disaggregated data and gender-sensitive databases (United Nations Sustainable Development, 1992). While not legally binding, Agenda 21 (UNSD, 1992) has served as the blueprint for sustainable development, shaping national planning, donor investment and programming in the area of the environment for some decades. Agenda 21 built upon previous plans and platforms that promoted women's empowerment and gender equality regarding crucial issues such as land ownership, resource stewardship, education and employment.

³⁰ Women4Biodiversity, op. cit., p. 10.

³¹ Ibid., p. 10.

³² Ibid., p. 10.



Convention on Biodiversity (1993)

The first of the three Rio Conventions, the CBD has a preamble text plus many subsequent decisions of Parties that include gender considerations. In 2008, Parties to the CBD adopted a Gender Plan of Action, making it the first Multilateral Environmental Agreement to do so. In a recent update for the period 2015- 2020 the CBD integrated actions to enhance the monitoring framework and indicator system for gender mainstreaming in its Secretariat and at the national level. The general Principles for the programme of work on the implementation of Article 8(j) of the Convention, also call for the “full and effective participation of women of indigenous and local communities”.

UNCCD (1996)

The UN Convention to Combat Desertification (UNCCD) recognized women’s important role and participation in combatting desertification and mitigating the effects of drought. Parties have integrated gender into their decisions and evolved a Gender Action Plan— the latest version of which (September 2017) aims to accompany implementation of the UNCCD 2018-2030 strategic framework (UNCCD, 2017).

UNFCCC (1994)

The implementation of the UN Framework Convention on Climate Change (UNFCCC) is informed by more than 50 decisions on gender equality made over recent years. These include the Lima Work Programme on Gender and, in 2017, Gender Action Plan designed to strengthen monitoring and reporting of implementation of gender-related mandates under the Convention.

Basel, Rotterdam, and Stockholm Conventions (1989, 1998, 2001, respectively)

The Basel, Rotterdam, and Stockholm Conventions (BRS) are designed to help protect human health and the environment from the negative effects of hazardous pollutants. A Gender Task Team was established in 2012 to mainstream gender across the BRS Secretariat and support the work of Parties and stakeholders. A BRS Gender Action Plan was developed in 2013 and updated in 2016. It serves as the guiding framework to ensure gender is an integral part of implementation.

Sendai Framework (2015-2030)

The Sendai Framework for Action for Disaster Risk Reduction calls for stronger women’s leadership and participation in disaster risk reduction. This recognition provides a new opportunity to strengthen the capacities of gender machineries, women’s organizations and women at regional, national and community levels to shape how DRR and climate change are implemented in the coming 15 years.

Source: Women4Biodiversity, op. cit., pp. 14-17.



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FINCAPES

Flood Impacts, Carbon Pricing, and Ecosystem Sustainability



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