



# NATURAL AND SEMI-NATURAL FORESTS

## Gender and Sustainable Land Management (SLM)

Gender equality is a key entry-point for SLM adoption, spread and upscaling. The joint WOCAT-UNCCD project on gender-responsive SLM technologies and approaches was launched in 2020 to fill the gap in the availability of gender-disaggregated data. The project deepens the analysis of SLM practice adoption patterns, assesses and analyses their differentiated impacts on women and men and informs gender-responsive policy design aimed at achieving land degradation neutrality.



## Methods and data

A gender questionnaire (QG) was developed and reviewed by 20 gender and SLM experts and piloted in 15 countries to test the methodology, the applicability of the tool and the relevance and use of the data collected. Five technology group profiles for gender-responsive SLM technologies and approaches were elaborated based on the WOCAT global SLM database and piloting data. The data under this profile cover 3 Technologies and QGs. Hence, the data is not comprehensive and there are gaps in terms of practices and regions. Two exemplary technologies are attached to each profile.

## Trees: providing hotspots of biodiversity and carbon capture for people and nature

Forests have multiple functions and uses: they are vital for humanity and nature – but also have an important productive function. They are havens for conservation of biodiversity in a wide variety of ecological conditions. Forests provide goods including wood (fuel and building materials/commercial logging), fruits, fodder for livestock, and non-timber forest products (honey, medicines, mushrooms, bark, etc.) and vital services including desertification control in drylands, biodiversity conservation, improving water quality, and protecting freshwater resources while feeding rivers and groundwater tables.

The key environmental benefits derived from forests can be summed up as conservation of biodiversity, protection against water and wind erosion, and improved water management and quality. Simultaneously, direct socio-economic benefits include improved livelihoods and well-being through income diversification. Forests are fundamental to climate change mitigation and adaptation.

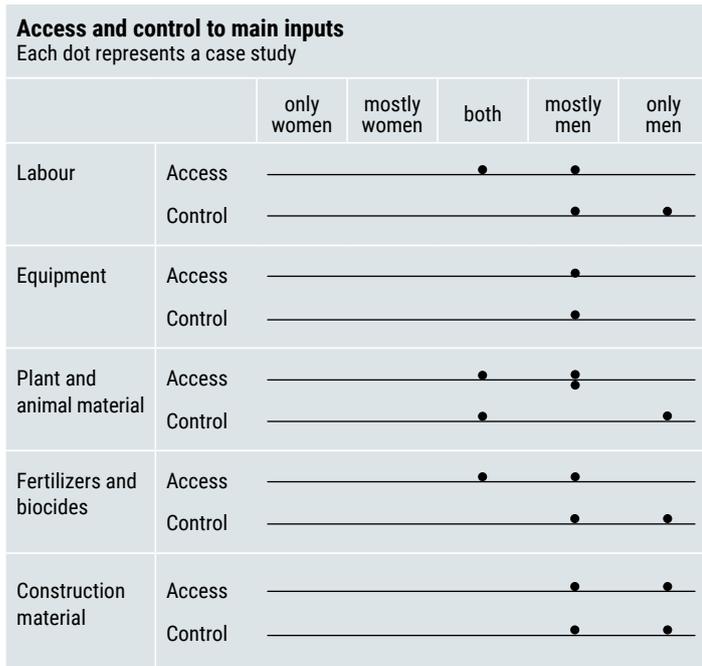
In drylands, sustainable forest management practices include reduced deforestation; fire management; restoration through natural and assisted regeneration; “enrichment planting”; selective planting and felling; participatory and community-based management; and schemes to pay for ecosystem services.

Dry forests cover a spectrum from deciduous forest in moist savannahs to dry deciduous woodlands and dry savannahs. Such landscapes are very variable, with cropland, grazing land and woodlands existing side by side. Rainforests cover tropical and mountain areas. In many countries, rainforests are now restricted to inaccessible mountain areas and to coastal and river zones.

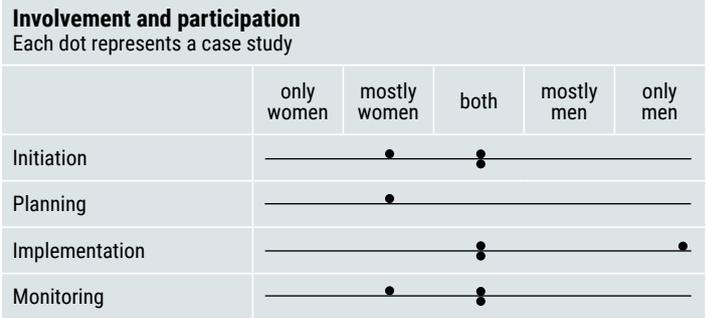
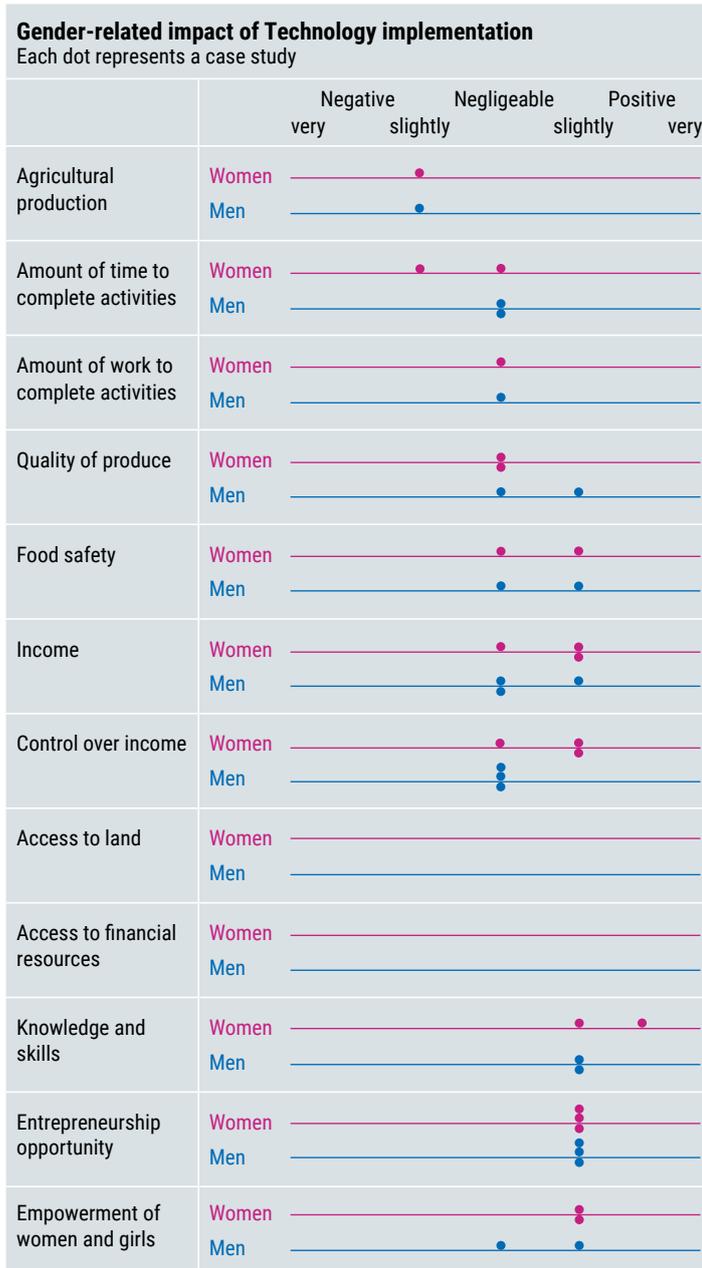
## Policy recommendations

- Facilitate bottom-up approaches, including men and women equally, in the forestry sector, to strive for equity in technology planning and design.
- Strengthen community awareness about forest land and resource rights as well as the role of women in SLM.
- Raise awareness of the gender-specific rights and management responsibilities of land, forest (and even individual trees), as well as gender-related challenges.
- Create enabling environments: in particular improve input supply to empower women economically and strengthen the perception of their role as farmers in the community.
- In situations such as removal of invasive alien species and land restoration through sponsored schemes, improve uptake through equal wages for equal work.
- Improve recognition of local innovation in community forest management.
- Enable women’s participation in income generation from (non-timber) forest resources, while respecting their religious norms (e.g. women-only working groups/hours).
- Address structural barriers, customary laws, beliefs and cultural norms related to trees and forests: build awareness of those relating to gender.

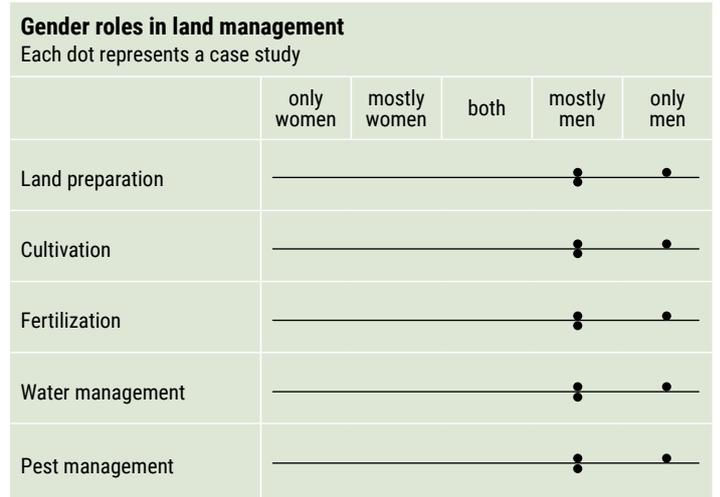
## Technology-related aspects



**Access:** Right to use resources    **Control:** Power to decide on the use of resources



## Community-related aspects



**Ownership and tenure rights**

	Women number of case studies	Men number of case studies
Access to land	<b>3 inherited</b> 1 bought	<b>3 inherited</b> 1 bought
Quality of lan	<b>2 marginal land</b> <b>3 fertile land</b>	<b>2 marginal land</b> <b>3 fertile land</b>
Tenure rights	<b>1 individual</b> (titled) <b>2 individual</b> (not titled)	<b>1 individual</b> (titled) <b>2 individual</b> (not titled)
Perceived land right security	<b>2 low</b> 0 medium 1 strong	<b>2 low</b> 0 medium 1 strong
Ownership of livestock	<b>Large ruminants</b>	<b>Small and large ruminants</b>

**Land use rights**

Type	Gender-specific number of case studies	Not gender-specific number of case studies
Statutory	0	2
Customary	0	2
Inheritance	2	1

**Literature**

Jhaveri, Nayna. 2021. Gender, tenure security, and landscape governance. PIM Flagship Brief November 2021. Washington, DC: International Food Policy Research Institute (IFPRI).

Dick Frederiksen, S.; Elias, M., Zaremba, H.; Aynekulu, E. (2021). Developing gender-equitable ecological restoration initiatives: A synthesis of guidance to improve restoration practice. Rome (Italy): The Alliance of Bioversity International and CIAT. 58 p.



The Abril family opening a stingless bee nest for honey collection; Photo: Natalia Roa

## Traditional native beekeeping [Colombia]

### Description

**Beekeeping with the native stingless bee (*Melipona favosa*) produces honey and protects bees and plants found in forest and savannah ecosystems. The traditional practice of capturing wild nests permits the extraction of honey from the same nest for up to 30 years.**

Native bee honey production in the floodable savannahs of the eastern Colombian Llanos (the Orinoco River Basin), relies on stingless bees of the species *Melipona favosa*. These bees nest inside tree trunks. The nests are retrieved either by rescuing them from rotten trees on the ground, or by cutting the branch with the nest, and then keeping the nest in place on the branch which is removed and taken home. In the case of the retrieved nests, the beekeepers study the outside of the nest and listen to the bees inside. With this information, they cut out a window. Once opened, they verify the location of the honey and pollen pots and the broods. They will then check every day for the presence of the sentinel bee and bee activity. Furthermore, they only extract honey at the end of the dry season when bees have enough food reserves. For the extraction, they will reopen the previously cut window, and take the honey and pollen pots, making sure enough is left behind so that bees can have access to food as well. The mean honey production from each nest is around the 750 -1000 ml.

The main benefits of native bee keeping is that it is sustainable, promotes conservation of native ecosystems, and constitutes a unique sustainable and profitable direct use of local biodiversity in the floodable savannahs of the eastern Llanos in Colombia. It is sustainable because honey can be extracted without damaging the bees.



#### Location:

Vereda Los Chochos, Trinidad, Colombia

#### Land use:

Forest / Woodlands  
Extensive grazing lands

#### Types of degradation addressed:

Physical soil deterioration  
Biological degradation  
Soil erosion by water and wind

#### Main purpose(s) of the technology:

- improve production
- conserve ecosystem
- preserve/ improve biodiversity
- create beneficial economic impact

### Women-friendliness of SLM Technology

Traditional native beekeeping as practiced in Los Chochos requires considerable effort and strength to carry the heavy trunks to the home and then to manipulate them. These tasks are mostly performed by men. Women participate in the observation of the hive behaviour and other less physically arduous tasks.

### References

#### Compiler of Gender Questionnaire:

María Paula Barrera, ABC Colombia

**Date:** January 2022

#### Key informant(s):

Damaris and Hector Abril, land users

#### Visit in WOCAT database:

[qcat.wocat.net/en/summary/5965](http://qcat.wocat.net/en/summary/5965)



Meeting with community Los Chochos to discuss gender-related issues and collect gender-disaggregated data; Photo: Beatriz Ramirez



Héctor Abril, holding the opened window and seeing the pots inside the nest; Photo: Natalia Roa

Main establishment and maintenance activities			
Activity	Labour by family	Reason	Labour
Hive extraction and transfer	Mostly men	Heavy workload	Hired: none Exchange*: none
Opening of a window in the nest	Mostly men	Heavy workload	Hired: none Exchange*: none
Checking the bee nests	Mostly women	Because women usually are at home	Hired: none Exchange*: none
Honey collection	Both		Hired: none Exchange*: none

\* Labour exchange within community

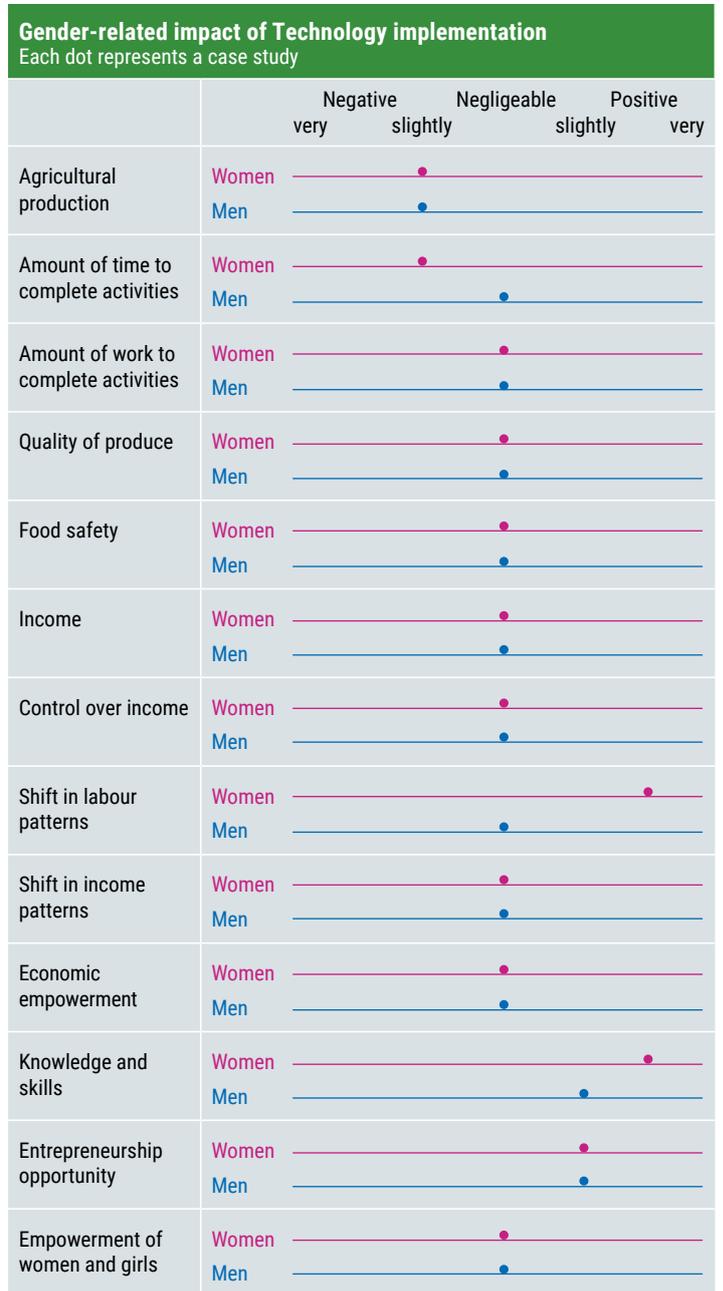
Cultural customs and taboos
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**Land tenure**

Men and women inherit equally. Statutory and customary land use rights are not gender-specific. The land use rights are based on national laws, some of them prohibit land titles because of land adjudication to a petroleum company. However, the lands can be inherited or bought.

**Recommendations to improve gender-responsiveness of the Technology?**

Most of the differences are related to physical strength between women and men, but they are not perceived as a hindering factor because the rational hives makes easier access to all the process. The community perceives the different roles (because of physical strength) as a normal, even natural gender condition. Nevertheless, improved participation of women in applying the technology and an understanding about their tenure rights are key to improve gender equality in land management.





Assisted Natural Regeneration in Medhakachapia National Park (MKNP); Photo: Fazlay Arafat

## Assisted Natural Regeneration [Bangladesh]

### Description

**Assisted natural regeneration (ANR) is a simple, low-cost forest restoration method that can effectively convert deforested lands to more productive forests.**

Medhakachapia National Park (MKNP) is nationally known for protecting the most extensive stands of mature critically endangered Garjan (*Dipterocarpus turbinatus*) trees in Bangladesh. Other native trees present in the MKNP include Telsur (*Hopea odorata*), Boilam (*Anisoptera scaphula*), Gamar (*Gmelina arborea*) and Chapalish (*Artocarpus chaplasha*). Originally, the entire park area was densely covered with Garjan forest, but now there are only about 9000 mature Garjan trees – as many parts have been encroached upon with agriculture. In order to restore forest health, the Bangladesh Forest Department introduced an “Assisted Natural Regeneration” (ANR) practice.

ANR aims to accelerate, rather than replace, natural succession processes by removing or reducing barriers to natural forest regeneration, such as competition with weedy species and recurring disturbances (fuelwood collection, grazing, fire and wood harvesting etc.). Compared to conventional reforestation methods, which involve planting tree seedlings, ANR offers the significant advantage of avoiding costs associated with propagating, raising, and planting seedlings. ANR is most effectively utilized at the landscape level in restoring forest protective functions, such as soil protection, and is most suitable for restoring areas where some level of natural succession is already in progress. ANR offers distinct advantages over other forest restoration methods but also has some limitations. ANR is much cheaper to implement and can be applied over larger areas than other restoration approaches, but may be less effective in enhancing floristic diversity during the initial stages. Some of ANR’s disadvantages can be overcome by enrichment planting with desirable species.

### Women-friendliness of SLM Technology

Assisted natural regeneration can be implemented easily by both women and men. No special technical knowledge or tools are required. The various activities, including nursery management, site preparation, planting trees, fertilizer application, weeding and other silvicultural interventions can be conducted by men or women. Community patrolling groups of men and women can equally care for the plantation site while ensuring protection from grazing, fire, and illicit felling.



#### Location:

Medakachapia National Park, Cox's Bazar, Bangladesh

#### Land use:

Forest/ woodlands

#### Types of degradation addressed:

Soil erosion by water  
Biological degradation

#### Main purpose(s) of the technology:

- reduce, prevent, restore land degradation
- conserve ecosystem
- create beneficial social impact

### References

#### Compiler of Gender Questionnaire:

Fazlay Arafat, Bangladesh Forest Department; Tania Akter, University of Chittagong

**Date:** January 2022

#### Key informant(s):

Mohammad Muktul Hossen, village chief

#### Visit in WOCAT database:

qcat.wocat.net/en/summary/4372



Meeting with the community living in the periphery of the forest to discuss gender-related issues; Photo: Fazlay Arafat



Uncovering seedlings from grass to accelerate natural succession processes; Photo: Fazlay Arafat

Main establishment and maintenance activities			
Activity	Labour by family	Reasons	Labour
Clearing the area, tying up seedlings with sticks	Both	Farm management decision	Hired: both Exchange*: yes
Fertilization	Both	Farm management decision	Hired: both Exchange*: yes
Weeding	Both	Farm management decision	Hired: both Exchange*: yes
Climber cutting, thinning, pruning	Both	Farm management decision	Hired: both Exchange*: yes

\* Labour exchange within community

**Cultural customs and taboos**

Most of the cultural customs and taboos in the community are guided according to Islamic norms. Women are not encouraged to go out of their homes unless extreme necessities. Girls usually get married at the age of 16-22. Women are discouraged not to go out of home without a proper Islamic dress code.

**Land tenure**

Men and women do not inherit equally. They follow the Islamic law of inheritance to distribute the land. According to Islamic jurisprudence, a son gets a share which equals the share of two daughters. The community does not have any legal rights on the land as they are staying as encroacher in forest land. Landless male-headed families and female-headed families encroached on the forest land for their living. However, they are not allowed now to increase their landholdings through further encroachment, but they are enjoying their customary land use rights within their already encroached land.

**Recommendations to improve gender-responsiveness of the Technology?**

For equal share of men and women to apply this technology, women must have access to public life and paid work (wages) without challenging cultural and religious traditions. Currently, men have higher wages as women for the same work. Furthermore, bottom-up approaches for design and planning of the technology are key. Labour division and timing of tasks have to be addressed in such an approach.

