



**TOOLBOX**

# **Understanding and addressing tenure In forest landscape restoration in Africa's community lands**

**Forest landscape restoration for improved livelihoods**





### Citation

Larson AM, McLain R, Andriamananjatovo N, Awono A, Guizol P, Guylou Mvaébeme S, Ndoumbe Nkeng M, Nomenjanahary F, Randrianasolo FJ, Ranjatson P. 2024. *Toolbox: Understanding and addressing tenure in forest landscape restoration in community lands*. Bogor, Indonesia: CIFOR; Nairobi, Kenya: ICRAF.

### Project duration

2021–2024

### Funding partner

BMZ

### Objective

The widespread adoption of FLR practices, resulting in improvements in sustainable land management and food security.

### Research partners

Laboratoire de Recherches Appliquées (LRA),  
Mention Foresterie et Environnement de  
l'École Supérieure des Sciences Agronomiques,  
Université d'Antananarivo, Madagascar.

### Produced by

KANDS Collective | [hello@kandscollective.com](mailto:hello@kandscollective.com)

### Project information

This toolkit is part of the project Improving Livelihoods Through Forest Landscape Restoration: Securing Tenure, Forests and Livelihoods in Madagascar and Cameroon.

# Contents

<b>The purpose of this toolbox</b>	<b>4</b>	<b>III. Step-by-step implementation guide</b>	<b>12</b>	<b>References</b>	<b>34</b>
<b>Background</b>	<b>5</b>	<b>Step 1:</b> Background preparation on formal tenure in the area of interest	12	<b>Annexes</b>	<b>35</b>
<b>I. Tenure and FLR roadmap:</b>		<b>Step 2:</b> Local mapping and village territory walk	14	<b>1:</b> Questions for completing the Legal Review	36
<b>What's in the toolbox?</b>	<b>6</b>	<b>Step 3:</b> Tenure focus group and key informant interviews	17	<b>2:</b> Village territory walk	38
Overview of steps and activities	7	<b>Step 4:</b> Initial review of the results in annex 3	32	<b>3:</b> Interview questions based on tenure-FLR scenarios	43
<b>II. Introduction to land tenure and FLR</b>	<b>8</b>	<b>Step 5:</b> Validation, adjustment and co-creation of solutions	33		
Why land tenure?	8				
What restoration?	8				
Land tenure: formal, customary, local, communal	9				
Formal tenure regimes	10				
Tenure security	11				



# The purpose of this toolbox

This toolbox was designed to help practitioners understand and address **tenure-related challenges** relevant to Forest Landscape Restoration (FLR) in community lands. It is intended for use by FLR projects or programmes and their associated field teams during the analysis of field locations.

## Community lands

By “community lands,” we mean lands that are collectively or individually-owned, used, or held by smallholder farmers or families, indigenous peoples, or local communities, either individually/privately or collectively, formally or informally.

The toolbox is based on research findings demonstrating the many ways in which land tenure can be an obstacle to the uptake of FLR, especially, though not exclusively, when this includes planting trees. It is based on the understanding that FLR commitments cannot be met without including lands being used by local communities and that investments in such lands will only be effective over the long term if those communities ‘own’ the specific FLR choices made.

**The toolbox is aimed at projects seeking effective community- or village-level participation. The specific purpose of the tools found here is to identify, primarily at the project site level, the ways in which land tenure issues inhibit the uptake of FLR practices and find ways to solve them. It is not intended to be the only tool used for engagement with villages and villagers.**

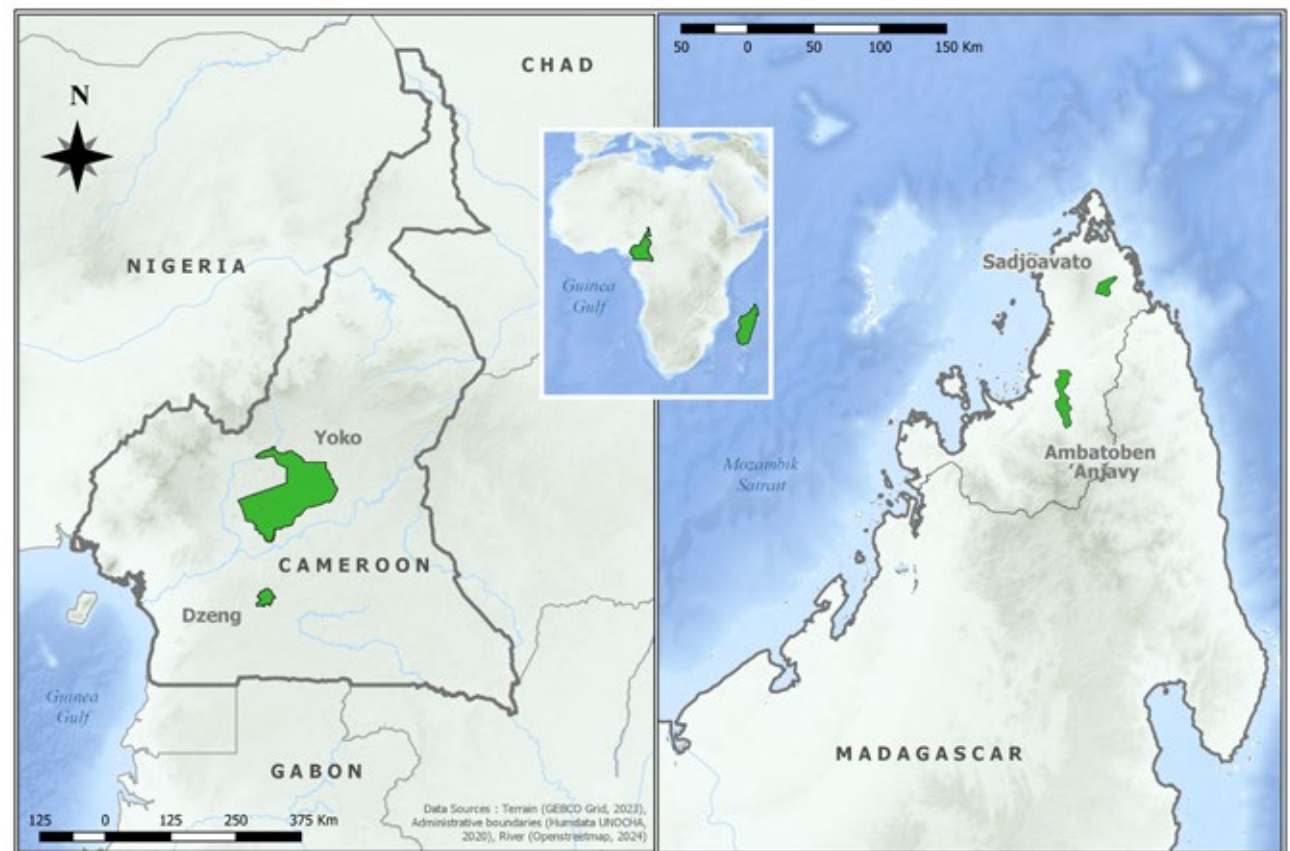


*Aerial View of Landscape in Madagascar (Ulrich Razafison/CIFOR-ICRAF)*

# Background

The data collection guides and scenarios in this toolbox draw primarily on findings from a CIFOR-led research project, “Improving Livelihoods through Forest Landscape Restoration: Securing Tenure, Forests, and Livelihoods in Madagascar and Cameroon”, which was implemented between 2021 and 2024.<sup>1</sup> It was funded by BMZ (Federal Ministry for Economic Cooperation and Development of Germany) under its initiative to assist African countries in meeting their restoration goals and was designed to develop tools to enable FLR programme managers, practitioners and policymakers to have a better understanding of how community tenure systems operate, as well as when, how and for whom they deliver tenure security.

The project compared community tenure systems at two sites in **central Cameroon** (Dzeng and Yoko Communes) and two sites in **northern Madagascar** (Sadjoavato and Ambatoben-Anjavy Communes). For a few scenarios where examples were not present in the study sites, the toolbox developers provide relevant examples from their field experiences in other parts of Africa.



**FIGURE 1:** Map of Field Sites in Cameroon and Madagascar (Source: Terrain (GEBCO grid, 2023), Administrative Boundaries (Humdata UNOCHA, 2020), River (Openstreetmap, 2024))

<sup>1</sup> For more details about the project, visit the project website at the following URL: [www.cifor-icraf.org/improving-livelihoods-through-forest-landscape-restoration/](http://www.cifor-icraf.org/improving-livelihoods-through-forest-landscape-restoration/)

# I. Tenure and FLR roadmap: What's in the toolbox?

This section provides an overview of the toolbox, detailing the five steps for implementation.

This toolbox is intended to assist **FLR project or programme staff and field teams** in navigating and preparing for the implementation of the field tools.

The toolbox is structured into three parts:



**Overview of the toolbox** and a Tenure and FLR Roadmap of the five implementation steps.



**Introduction to Land Tenure and FLR** including useful concepts and terms.



**Step-by-Step Implementation Guide** including activities, explanation of scenarios, an introduction to the tools, and country-specific examples.



## TOOLBOX TIP

Choose what works for you! Feel free to add other questions relevant to your specific context. The questionnaires are designed to be used and adapted in a manner that is most helpful for the user. (For example, while the questionnaires refer to villages and villagers, the toolbox can be applied to other social or administrative units with adjustments to the questions as needed.)

The tools provided consist of qualitative questionnaire guides designed to gather information relevant to identifying and addressing tenure challenges in FLR. They are meant to be used flexibly, with questions adapted to the specific context rather than following a rigid order. Several questions include prompts for additional information.

The questionnaire guides are organized into five distinct but related steps and their associated activities.

STEP  
1



Conducted before going to the field

STEPS  
2-5



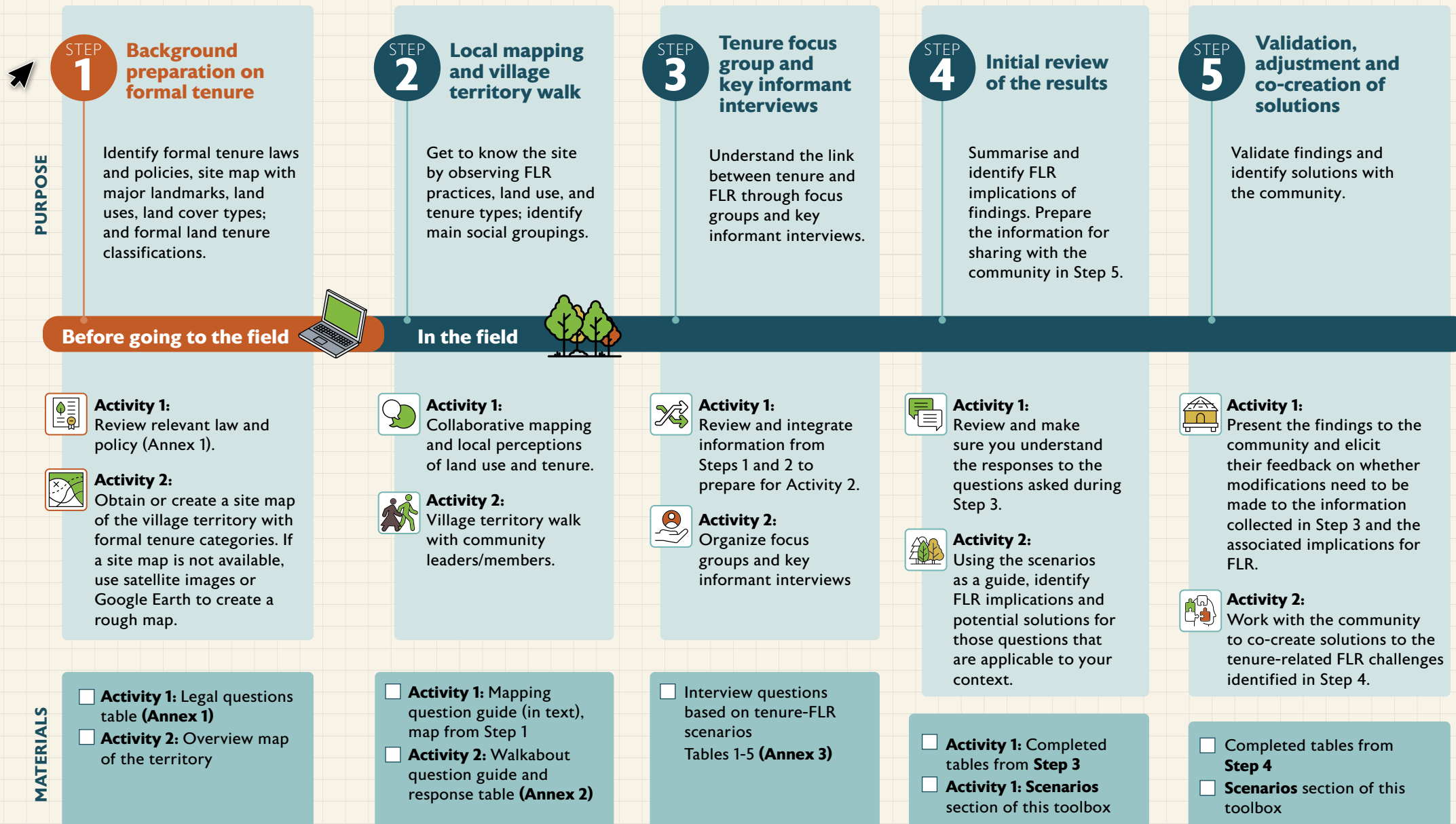
Carried out in the field

See the following page for a visual understanding of this.



Fieldwork in Madagascar (Ulrich Razafison/CIFOR-ICRAF)

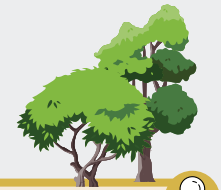
## Document map





Village in Madagascar (Ulrich Razafison/CIFOR-ICRAF)

## II. Introduction to land tenure and FLR



### Why land tenure?

There is substantial evidence that weak or insecure land tenure can be a significant obstacle to investments in sustainable land management practices. This is not entirely straightforward, however, as planting trees can also be a way to claim land. It might also lead to the assumption that providing individual land titles is the only or best solution to addressing tenure insecurity. In fact, tenure – to land, trees, tree parts or products, carbon, and more – is highly complex, and the characteristics and related effects of tenure on behaviour are site-specific.

**This toolbox has been designed based on an in-depth analysis of tenure and FLR in four study sites: two in Cameroon and two in Madagascar.** However, the tools have broad applicability to other African countries. The toolbox aims to simplify a difficult issue without oversimplifying. It takes a practical, goal-oriented approach shaped around directly relevant scenarios, or hypotheses, drawn from the research findings. This introduction focuses on assuring the reader's familiarity with some of the most important tenure and FLR issues to be aware of.

### What restoration?

Although restoration involves much more than the planting of specific trees, for the purposes of this toolbox, we refer primarily to tree planting and protected natural regeneration. Tree-planting may take many forms, from groups of trees to agroforestry, boundary plantings, fences, individual trees in a courtyard or home garden, and so on.

Efforts to promote restoration should take into account who owns or is using the land; local needs and preferences for the type of restoration and tree species; and who will benefit from restoration, as well as who will lose (e.g. loss of land for agriculture or grazing livestock).

<sup>2</sup> Our definition of FLR is a modified version of the definition adopted by the IUCN, WWF and the Global Partnership on Forest and Landscape Restoration.

**IUCN's definition:** <https://www.iucn.org/our-work/topic/forests/forest-landscape-restoration>: "Forest landscape restoration (FLR) is the ongoing process of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes. FLR is more than just planting trees – it is restoring a whole landscape to meet present and future needs and to offer multiple benefits and land uses over time."

**World wildlife fund definition:** <https://forestsolutions.panda.org/approach/forest-landscape-restoration>: "FLR is a planned process that aims to regain ecological functionality and enhance human wellbeing in deforested or degraded forest landscapes."

**Global partnership on forest and landscape restoration definition:** <https://www.forestlandscaperestoration.org/about-us/> "Forest and landscape restoration (FLR) is defined as a process that aims to regain ecological functionality and enhance human well-being in deforested or degraded landscapes."





## Land tenure: formal, customary, local, communal

“Tenure” encompasses both state-based **legal** or **formal** rules and procedures and **local** or **customary** rules, norms, and procedures. Most often, we assume that formal rules take precedence and that the law is enforced, even when we know it is often not. Hence when we talk about formal land rights, we assume that everyone has the same basic understanding of what this means.

What happens in practice is far more complex. In many cases, formal tenure is absent or unclear. Customary rights may or may not be recognized by statutory law, but even when recognized, it is often not clear how they operate in any particular location or local culture, or how they interact with statutory law. Outsiders often have great difficulty understanding the complexities of local tenure systems, and local people often cannot explain them clearly because they are used to them just being “how things are

done.” Moreover, local tenure rules and norms are likely to vary from one place to another - and they may change over time. In contexts characterized by overlapping statutory and local tenure systems, it is important to search for synergies between formal and local tenure regimes.

It is important to recognize the importance of these local and customary systems. It is equally crucial to recognize that both local/customary and formal tenure regimes can be the source of different kinds of barriers to and incentives for restoration. Perhaps most importantly is understanding that local *perceptions* are key to understanding the barriers and incentives to tree planting – and that different people within the same village and even the same household may have different perceptions, as well as different needs and aspirations with respect to FLR.



### Land/resource tenure

Land and resource tenure consist of the social relations and institutions governing access, use, rights, and responsibilities over land and natural resources (Maxwell and Weibe, 1998). This includes “who can use which resources, for how long, under what conditions” and for what purpose. Tenure often refers to the “bundle of rights” that a person or community has in land, trees, or resources. Land tenure systems can be based on customary practices, formal laws, or a combination of both, resulting in private, communal, informal, or formal land tenures.



### Customary tenure

Customary systems of land ownership and management are based on traditional practices, customs, and norms within a specific community or culture. The land rights within the customary systems are governed by unwritten rules and social agreements from one generation to another, distinguishing collective ownership (used and managed by a group of people), inheritance rules (based on traditions and rites), use rights (including access and use within a group of people) and stewardship responsibilities (rules and practices that promote sustainable land and resource management).



Mahavavy River, Madagascar (Ulrich Razafison/CIFOR-ICRAF)

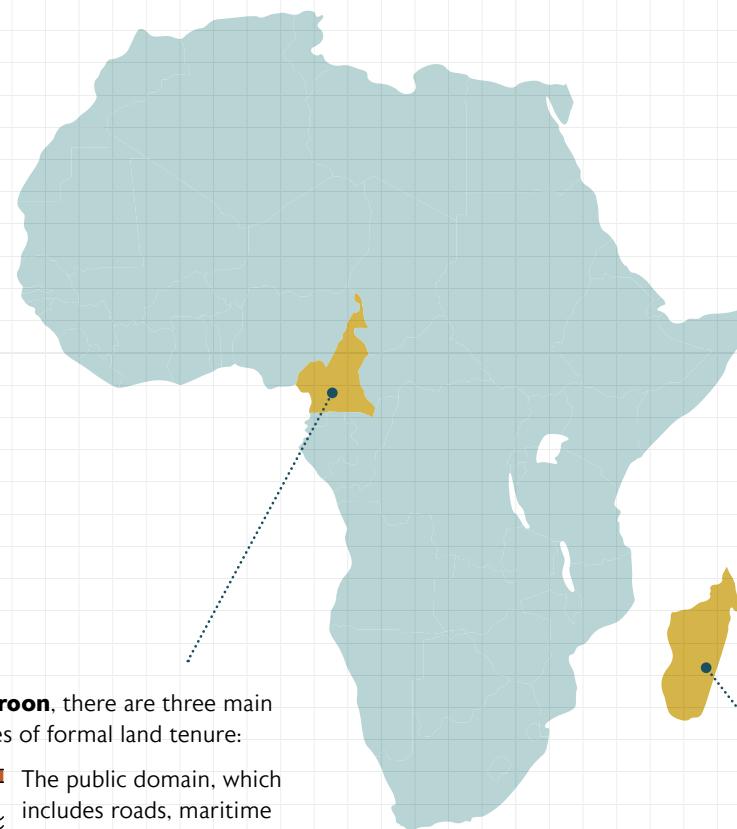







## Formal tenure regimes

It is important to understand the legal status of land before making any investment in it, including forest landscape restoration, as not doing so can have unexpected and unintended consequences.

There are many ways to name formal tenure regimes: public domain, state (public) domain, state (private) domain, private (individual) domain, private (company/firm) domain, private (collective) domain, and/or collective domain. Mechanisms through which the state grants formal or legal rights to land may include ownership rights, such as through titles, or use rights, such as through concessions. The meaning of these different terms also varies from country to country, as does the specific distribution of rights in each type, and thus requires understanding them in each specific context. Compare, for example, Cameroon and Madagascar, as illustrated on the following map.



In **Cameroon**, there are three main categories of formal land tenure:




-  The public domain, which includes roads, maritime areas, waterways, and roads, and ministries or schools
-  The private domain, both State and individual
-  The national domain, consisting of lands with human presence (1st category) and lands without occupants (2nd category)

### TOOLBOX TIP

In this toolbox, **Step 1 Activity 1** consists of a series of questions about relevant laws governing trees and land to be answered **before** going to the field. It is meant to produce a general understanding of formal tenure and does not require developing a detailed picture of each formal land tenure category and its intricacies. However, a basic understanding of the information obtained through answering the recommended questions, as well as developing a map of the project site, including any known formal land tenure classifications (national parks, protected areas, etc.), will be helpful for guiding village-level discussions and analyses.

You may find, for example, that what is on paper (in law) has little meaning in practice (e.g. the different land types are not delineated, rules are not enforced) and has little meaning to local communities, who might have their own understanding, history and/ or designations for the same areas officially claimed by the state.

In **Madagascar**, there are also three main categories of formal land tenure:

-  The State domain, including the public and the private state domain
-  Private property, including titled and untitled private property
-  Land with a specific status designation (for example, national parks, protected areas)



### Formal tenure

Formal systems of land ownership and/or management are those that are legally recognized and documented by government authorities. Formal land tenure is characterized by the existence of state-issued titles or other official documents or contracts that establish and protect individual or collective rights to land, whether permanent (such as a title) or temporary (such as a concession). Some countries, such as Rwanda, Ethiopia, and Madagascar, have begun to issue land certificates through a local process that is more accessible than obtaining formal title. It is important to recognize that formal land tenure rights are not restricted to ownership; they can include other rights, such as use rights or management rights to land or resources.





House in Sadjoavato, Madagascar (Rebecca McLain/CIFOR-ICRAF)



Aerial View of a Forest in Cameroon (Mokhamad Edliadi/CIFOR-ICRAF)



## Tenure security

### Land tenure security has several key elements:

- 1 It refers to “landholders’ confidence that their rights will be upheld by society” (Robinson et al. 17:4).
- 2 It also refers to “the ability of an individual to appropriate resources on a continuous basis, free from imposition, dispute, or approbation from outside sources, as well as the ability to claim returns from investment in the resource” (Migot-Adholla et al. 1991).
- 3 Finally, it is not a “stable state but the result of a whole series of factors to be taken into consideration on a case-by-case basis” (Le Roy et al, 1996: 21).

**Although it is often assumed that a title guarantees security, this is not always the case.**

Research demonstrates that land rights derived from customary systems are sometimes perceived by local communities as more secure than state-issued titles - and/or that titling programmes can introduce new sources of insecurity (Boone 2019). However, **customary tenure rights may become insecure in areas where demand for land is high and the state fails to recognize or protect customary systems.**

At the same time, state-issued titles or land certificates often do not adequately account for pre-existing rights of secondary rights holders, such as women and pastoralists, thereby undermining their tenure security. Titling or certification efforts that privatize collectively held lands may lead to broader institutional changes that undermine safety nets as well as local cultural values and norms. **Land formalization processes can increase and entrench inequalities if there is not a deep understanding of local power dynamics and politics.**

As a result, efforts to formalize tenure rights through the issuance of titles or land certificates may cause more problems than they solve.

1

2

3

4

5

# III. Step-by-step implementation guide

STEP

1

BEFORE GOING INTO THE FIELD:

## Background preparation on formal tenure



### ACTIVITY 1:

#### REVIEW RELEVANT LAW AND POLICY

➤ **Annex 1** includes a series of scenarios and questions regarding property rights and regulation of trees.

This table requires the review of formal land categories and the role and rights of the State and local people.

The answers can be obtained by reviewing the relevant policies, laws, and regulations or by interviewing an authority familiar with them. These typically include land, forest, grazing, and environmental policies, laws, and regulations developed by state entities, including decentralized governing bodies, at the national or sub-national level. It also includes mining or other land investment policies (which might encroach on restoration or protected areas).

Answers should be noted in **Annex 1**. This factsheet provides ideas on data sources: <https://www.cifor-icraf.org/knowledge/publication/8972/><sup>31</sup>

The scenarios presented in **Step 3** of this manual provide background information to help practitioners develop a summary of the formal policies, laws, and regulations that may influence these legal questions, including indications of which laws are the most relevant to consider. In Step 3, local perceptions of formal and customary land tenure categories will be assessed.

#### How will I use this information?

Understanding formal land categories and rules and regulations is essential, even if they are not always clearly delineated or well enforced. They provide a basis for understanding local incentives (such as tenure rights) regarding tree planting or other FLR activities. Where formal rules are unclear or locally unaccepted, they provide a basis for comparison with local and customary perspectives. You will not know which laws are meaningful to or how they are likely to affect local people until you go to the field.



Ugwono Pauline Plants Gnetum (Okok) in the Village of Minwoho, Lekie, Center Region, Cameroon (Ollivier Girard/CIFOR-ICRAF)

<sup>31</sup> Geographic Information Systems shapefiles for protected areas (including national parks, terrestrial and marine reserves, etc.) are available from the World Database on Protected Areas housed at Protected Planet's website: <https://www.protectedplanet.net>. Resources are available in English and French.

1

2

3

4

5



## ACTIVITY 2:

OBTAIN A MAP OF THE VILLAGE TERRITORY. ADD FORMAL TENURE CATEGORIES.

- A** If feasible, **obtain a satellite (or Google Earth) image that covers the entire village territory** and have a 1m x 1m version of the image printed and laminated to serve as an orientation map.
- B** If possible, **identify and mark the boundaries of the main legal/formal tenure types** or classifications according to the state. Keep in mind that in many countries, the boundaries of these tenure types exist only on paper and may not be marked on the ground.
- C** If possible, indicate on the village territory map those locations where **tree cover** is relatively dense.
- D** If it is not possible to get a satellite image or a large-scale printed version of the image, then purchase several large sheets of paper, such as from a flipchart, to use for developing a **hand-drawn orientation map** upon arrival in the village.



### Where to find maps

Geographic Information Systems shapefiles for subnational administrative boundaries for most countries in Africa are available on the United Nations Office for the Coordination of Humanitarian Affairs' website: <https://data.humdata.org/dataset>. There should also be national sources.



### How will I use this information?

As in Activity 1, it is important to understand the formal tenure types and classifications as they are relevant, at least on paper, to the villages or regions of interest. For example, it could make a big difference to local land use and decision-making if there is a protected area in or near the village; if there is untitled pastureland; if there is a communal land title; or if some villagers hold titles or certificates and others do not. It is also relevant if the official borders of these areas are different from the borders recognized by villagers. The map provides a starting point for the visit to the village.



Participatory Mapping in Sadjoavato, Madagascar (Mamy Hasinjato Mandimbiriantsoa/ESSA-Forêts)



1

2

3

4

5

## STEP 2 IN THE FIELD: Local mapping and village territory walk



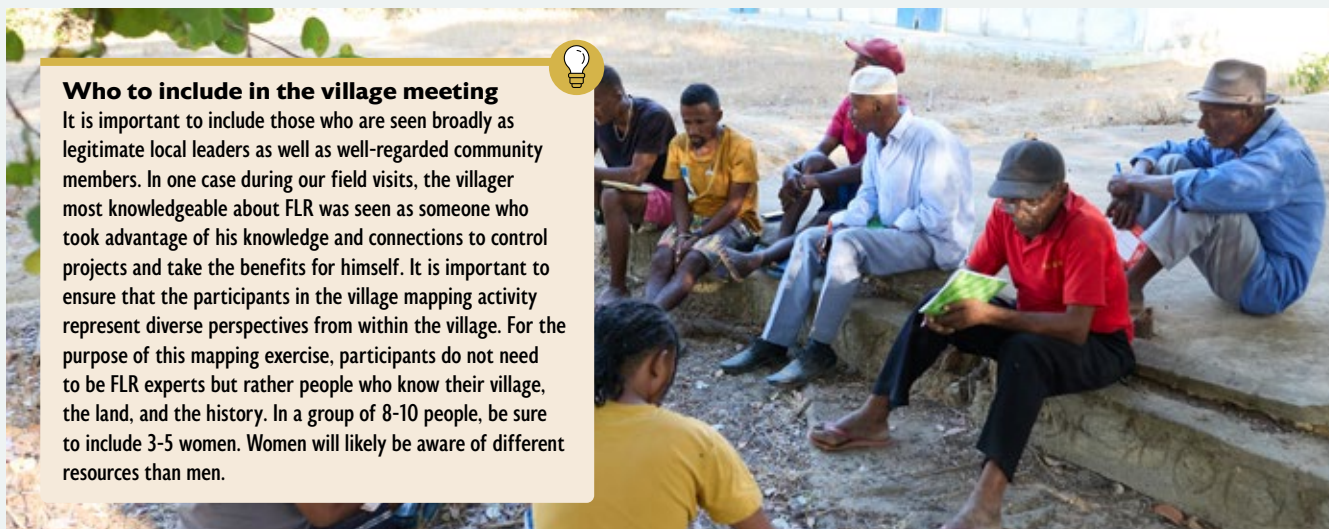
### ACTIVITY 1:

#### COLLABORATIVE MAPPING AND LOCAL PERCEPTIONS OF LAND USE AND TENURE

- A** Use the map created during Step 1 to **identify key landforms, land uses, local tenure categories**, as well as the names locals use for them.
- B** **Call a meeting with village leaders<sup>4</sup> and villagers** who are knowledgeable about the geographic layout of the village and where different types of landforms, land uses, and land tenure types occur within the village boundaries. Remember that local understanding of landforms, land use, and land tenure categories might differ from the formal categories identified and mapped in Step 1. Documenting these local perceptions, as well as local terms and definitions, is crucial. It is also important to collect this data, here and elsewhere, in a way that ensures that a variety of local perspectives are included.
- C** Using the map you have brought, work with the group to outline or confirm the village boundaries as well as what might be the broader area that villagers use or claim. **See example on page 15.**
- D** While developing the map, **ask participants to provide local terms**, preferably in local languages, for the different landforms, land use types, and tenure categories. Develop a list (glossary) of these terms for use later on.

#### How will I use this information?

This exercise will open the conversation with village leaders and villagers, help you get to know each other, and start to talk about the village, the land, and land uses. In some places, land tenure can be a very sensitive issue, and it is important to build trust and common understanding through such conversations. It will help you start to define local land categories and interpretations, vocabulary, opinions on FLR, and concerns about tenure, which will be deepened in the next activity. The map created through this activity can be used as a reference during the focus group discussions or key informant interviews carried out during Step 3 and during Step 5 when the community validates the findings and co-creates solutions to tenure-related FLR challenges.



#### Who to include in the village meeting

It is important to include those who are seen broadly as legitimate local leaders as well as well-regarded community members. In one case during our field visits, the villager most knowledgeable about FLR was seen as someone who took advantage of his knowledge and connections to control projects and take the benefits for himself. It is important to ensure that the participants in the village mapping activity represent diverse perspectives from within the village. For the purpose of this mapping exercise, participants do not need to be FLR experts but rather people who know their village, the land, and the history. In a group of 8-10 people, be sure to include 3-5 women. Women will likely be aware of different resources than men.

#### Land use

Land use generally refers to how the land is being used currently. In some cases, it may be formally categorized into two types, agricultural and non-agricultural, but it may refer to much more detailed uses. Agricultural land can include food and short-cycle crop types, permanent agriculture, or agroforestry. Non-agricultural land may refer to pasture, natural forest, tree plantations, and so on. In some cases, people use the term "land use" to refer to the "appropriate" or "correct" use based on biophysical characteristics such as topography and soil type, but it is not used that way in this toolbox.

Small group discussion, Ambatoben'Anjavy, Madagascar (Ulrich Razafison/CIFOR-ICRAF)

1

2

3

4

5

**Note:**

If a satellite image map is not available, have the participants draw a sketch map of the village territory, including the types of features and land uses..



**Mark the following types of areas on the map** and document how these are understood and referred to locally. Compare and note if and how these differ from the legal/formal categories identified during **Step 1**.



State protected areas/national parks/forest reserves (if present)



State forest, agricultural, or mining concessions (if present)



Cropland (note the different types of crops present)



Local protected areas



Sacred forests/cultural sites



Forests/wooded areas



Residential areas



Hamlets



Pasturelands



Reforestation sites



Areas where land ownership/use is contested



Other notable natural and cultural features

1

2

3

4

5



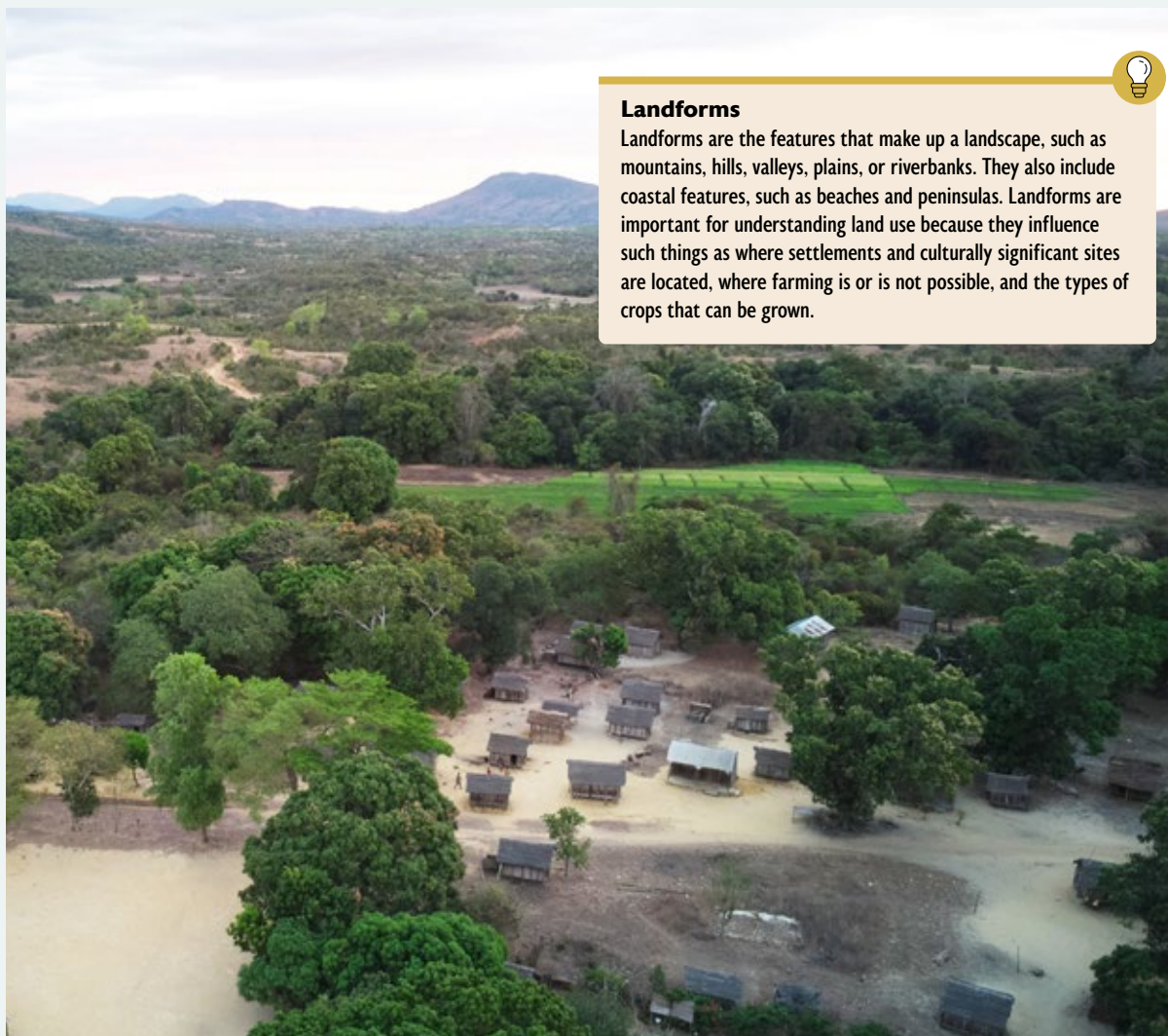
## ACTIVITY 2: VILLAGE TERRITORY WALK (SEE ANNEX 2)

- A** Once the map is developed, ask the village leaders/ villagers to identify a pathway (or set of pathways) through the village territory that will allow you to **get a sense for the range of land use and land tenure types within the village boundaries**. This will allow you to see with your own eyes what you have drawn on the map. The observational data you collect on the village territory walk will also be a crosscheck for the information provided by community members during Step 3. The walk might take the form of a large circle traversing the village territory or it might consist of several linear or meandering pathways.
- B Identify 3 to 5 people who are willing to accompany you** on a walk through the village territory. Use prompt questions but let them lead the conversation and listen actively. The prompt questions are found in Annex 2 and pertain to:
1. Landforms and land use types
  2. Land tenure and ways to access land, trees and tree products, other products
  3. Forest landscape restoration patterns
- C** As you walk through the village territory, **draw rough sketches of what you see**, and record your answers to the prompt questions using the chart in Annex 2.



### How will I use this information?

This activity builds on the previous one. Informal discussion while walking through the territory provides an opportunity to clarify key tenure and land use concepts and terms in local languages and perceptions that are important to the subsequent analysis. It allows you to show them you are listening by learning to “speak their language,” develop a rapport with the villagers accompanying you, and meet others on the walk. Much of the information collected during the village territory walk will be useful to include in Annex 3.



### Landforms

Landforms are the features that make up a landscape, such as mountains, hills, valleys, plains, or riverbanks. They also include coastal features, such as beaches and peninsulas. Landforms are important for understanding land use because they influence such things as where settlements and culturally significant sites are located, where farming is or is not possible, and the types of crops that can be grown.

Forest landscape in Ambatoben'Anjavy, Madagascar (Ulrich Razafison/CIFOR-ICRAF)



1

2

**3**

4

5

STEP  
**3**

IN THE FIELD:

**Tenure focus group and key informant interviews**

**You have discussed the village land features and uses, tenure types, and visible FLR patterns; you have a better understanding of local terms and perceptions of formal land categories and have some sense of social groups present in the area, land tenure issues, and experience with FLR.**

**ACTIVITY 1:**  
INTEGRATE INFORMATION

At this time, review all of the information collected from Annexes 1 and 2 in light of the questions you will ask in Step 3. For example, you might want to have on hand for reference the legal responses from Annex 1 in relation to the corresponding questions in Annex 3. You may want to adjust some of the questions in Annex 3 to correspond with local terminology or specific land types or social groups you have identified in Annex 2.

**ACTIVITY 2:**  
ORGANISE FOCUS GROUPS

You are now ready to dig into a more systematic set of questions. Those questions are found in Tables 1-5 in Annex 3. We suggest that you organize one or more focus groups (FG) with 8-10 people who represent the variety of social groups found in the village. Ideally, you will organize one FG with men, and a second FG with women. Different groups to consider as participants include different ethnic groups, wealthier and poorer individuals, those who have secure tenure and those who do not, longer-term residents and newer arrivals, and those interested in FLR and those who are not. You may need to follow up interviews with local key informants to reconcile inconsistencies or get clarification on some topics.



*Focus Group with Women, Sadjoavato, Madagascar (Fabrico Nomenjanahary/ESSA-Forêts)*

**Key Scenarios**

The question guide for Step 3 is designed around key scenarios encountered during the research team's fieldwork in **Madagascar (Box 1)** and **Cameroon (Box 2)** or, in some cases, experiences in other countries.

**This section:**

- 1 Explains the reasons behind each scenario
- 2 Provides a short example describing how the scenario plays out on the ground
- 3 Explains the implications of the scenario for FLR investments
- 4 Suggests potential solutions to disincentives to FLR investments, where applicable

The scenarios—which can also be understood as statements of hypotheses—suggest one option of what might be found. However, if the scenario is not present, it may still be relevant, as

- a counter-scenario might be true and
- there might be variations on the scenario.

The point is not to discard the question if the scenario is not found, but to identify the specific situation with respect to that question, in order to fully understand the implications for FLR decisions. Similarly, the examples given are just some of the possibilities, and there may be others with modifications.



In **Annex 3, Tables 1-5**, each scenario has been turned into a general question and is followed by at least one and up to four specific questions. Where relevant, there is space for a Yes/No answer. Additional space is provided for writing down more details for that particular situation for the village you are assessing. At times, there are separate rows under a single question, because there might be more than one answer. For example, the answer might differ depending on the type of tenure or the type of user or social group. Note: It is not a problem if people do not agree on the answer - most likely it means you have found something important to understand!

You might partially fill out the final two columns (implications for FLR and solutions/considerations), but you can also complete them later, in **Step 4**, using this manual.



1

2

3

4

5



## BOX 1

## Madagascar

Our examples for Madagascar were collected in the Sadjoavato and Ambatoben'Anjavy Communes in the DIANA Region. The local farming system consists of permanent rice fields in the river bottoms, with the uplands used for other crops. Agroforests are located between the bottomlands and uplands. In this zone, annual and perennial subsistence crops are grown in association with fruit trees and commodity crops, such as cacao and sugar cane.

**Sadjoavato** is characterized by extensive reforestation throughout the commune, primarily of *Eucalyptus* spp. and *Acacia mangium*. Reforestation began in the 1980s and continued under the GREENMAD project, with support from Germany's international cooperation agency. GREENMAD adopted an approach known as Individualized Village Reforestation, wherein participants in reforestation efforts were eligible to obtain a land certificate from the Local Land Office for a portion of the reforested land. Many individuals had their parcels mapped but did not complete the final steps needed for a land certificate until 2023, when the national government implemented a massive land certification program. Roughly 53% of the land in Sadjoavato Commune has been titled, certified, or has had its boundaries officially recorded in the local land use plan. The commune manages part of the reforested area, and a community forest management association co-manages a natural forest that extends a short distance into the commune. The remainder of the land falls into the two main categories of state land: untitled private property and state domain.

In **Ambatoben'Anjavy**, reforestation parcels are concentrated in the northern part of the commune, which is close to the city of Ambilobe and therefore easily accessible by projects. Cashew trees have



'Vilo', a traditional agroforestry practice in northern Madagascar (Addis Moukouyou/ESAE Diego)



been planted in some areas on lands unsuitable for agriculture and are an important source of revenue for locals when the nuts are ripe. Compared to Sadjoavato, a much larger portion of Ambatoben'Anjavy Commune is covered with natural forest. Forested areas are managed either by extended families or under co-management agreements between the state and community forest management associations. Very little land in the commune has been titled. Unlike Sadjoavato, Ambatoben'Anjavy does not have a local land office, ruling out the possibility for individuals to obtain land certificates for their untitled private property or even to have the boundaries of their parcels officially recorded. Consequently, under the state tenure system, most land in the commune is either untitled private property (if farmed or developed as a residence) or state domain.



Erosion at a mining site in Ambatoben'Anjavy, Madagascar (Addis Moukouyou/ESAE Diego)



1

2

3

4

5



## BOX 2

## Cameroon

Our examples for Cameroon were collected from Dzeng and Yoko Communes in the Center Region. Dzeng is 54 kilometers from Yaoundé, the nation's capital, while Yoko is roughly 270 kilometers from Yaoundé. Both communes are heavily forested, and shifting cultivation is widely practiced. In both communes, very few people have titles for their land; most people have access to land through the customary tenure system, which exists in parallel with the state system.

**Yoko** is the larger of the two communes, covering 17,000 square kilometers, with a very low population density of one person per square kilometer. At the time of our study, traveling to and through the commune was quite difficult, but a national road linking Yoko to Yaoundé was under construction.

Under the state tenure system, a large portion of the commune falls into the state's private domain, including national parks, communal forests, and forest management units. Additionally, many areas are set aside for development projects and hunting for sport. Subsistence agriculture is the main source of livelihood for most people in Yoko, although a few villagers in the southern part of the commune have cocoa plantations. Pastoralists coexist with farmers in the northern region, which is largely forest savanna.

**Dzeng Commune** covers an area of only 987 square kilometers and is much more densely populated, with nine persons per square kilometer. Dzeng's Communal Forest, which consists of three distinct parcels, covers roughly one-fifth of the commune's land area. The Communal Forest was established without considering

local land rights, and opposition to it remains strong among the local inhabitants. Illegal clearing of the forest to create agricultural land is not uncommon. Because of Dzeng's proximity to Yaoundé, the demand for agricultural land is high, and land sales are increasingly common. Most of the commune's inhabitants make their living from farming, with logging sometimes a secondary source of income. Agroforestry, such as cocoa or oil palm plantations, is still rare. As in Yoko, portions of Dzeng Commune are in the state's private domain, and some areas have been designated for development projects or hunting for sport.



Cocoa Production in Rural Cameroon (Olivier Girard/CIFOR-ICRAF)



Reforestation Activities in Mandjou, East Cameroon (Emily Pinna/CIFOR-ICRAF)

1

2

3

4

5


**Table 1: Scenarios relevant to the individual's or collectivity's relationship with the state and/or FLR projects**

Individual and community rights to land and resources are strongly influenced by the state. Formal rules establish access, use and decision-making rights according to state law. However, these laws may or may not be enforced, and they may or may not be recognized by local populations, who often operate

from local and customary rules and norms. All of the scenarios in Table 1 include questions about the legal/formal situation (for Annex 1) and the informal local practice/perception of the scenario (for Annex 3); some include questions about enforcement, how different social groups are affected, and others.



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
1-A	<b>All trees are the property of the state (national or subnational, e.g. commune)</b>		
In some countries, all naturally occurring trees are the property of the state. Perhaps more commonly, all trees in a particular tenure type (for example, national parks or protected areas) are the property of the state. Local people's rights to trees on state-based tenure regimes, such as protected areas or classified forests, are often very limited. Local populations may have rights to certain tree products, such as leaf litter, fruits, or (potentially) firewood for domestic consumption, but they are less likely to have the right to cut down trees for timber or harvest any forest products for sale without obtaining permission from the state. It is important to know if this scenario exists in the project area, and if it does, whether it is enforced and if enforcement is biased toward certain populations.	In certain types of tenure, such as commune forests in Cameroon and classified forests in Madagascar, all trees are the property of the state, whether planted or natural. A more extreme example occurs in Ghana, where all naturally occurring trees belong to the state, regardless of whether they are located on state or privately held land. Although it has recently become possible to register planted trees in Ghana, doing so involves time and effort.	If all trees are state property, there is a disincentive for people to voluntarily engage in either active or passive restoration.	The provision of paid employment for tree-planting along with long-term employment for villagers to take care of trees over time may be necessary to overcome this disincentive. However, this requires a long-term investment by the state agency, donor organization, or NGO responsible for implementing the FLR project. Another approach that has been successful in some areas of Madagascar is the establishment of co-management contracts, where the state transfers some management authority over forested areas as well as enforcement responsibilities to community-based forest management associations.



1

2

3

4

5



## SCENARIO

## EXAMPLE

## FLR IMPLICATIONS

## POTENTIAL SOLUTIONS

**Certain trees (planted trees, certain species of trees) are the property of the state or are considered valuable to the state**

FLR projects promote tree species that they believe are important to achieve their goals. Historically, many projects have emphasized fast-growing exotic species, such as Eucalyptus spp., Acacia mangium, or Prosopis spp., over other species desired by local people. In such cases, locals may perceive the species promoted in FLR initiatives as belonging to the state or the project. In other cases, the state may designate specific highly valuable or iconic species, such as Acacia albida in many parts of the Sahel, as protected species, whose harvest is either prohibited or strictly regulated.

In northern Madagascar, we found that the implementation of large-scale state and project-led reforestation projects during the 1990s led villagers to assume that Eucalyptus and Acacia mangium, the two species that were heavily promoted by these projects, were the property of the state or the reforestation project.

The perception that certain species belong to the state or projects may reduce locals' willingness to adopt FLR if those species are the ones being promoted.

It is important for FLR projects to identify whether there are species of trees that locals view as being owned by the state or a project and, if so, to work with villagers to identify the species that they would prefer to plant or protect.

**1-B Permission is needed from the state (national level) to prune or to cut down a tree**

In many francophone African countries, permission is needed from the state forestry service to prune or cut down living trees, particularly if they are considered economically valuable species. In some countries, restrictions on the pruning and cutting of live trees apply to all trees that are formally located in the state domain. Under such circumstances, locals may be required to obtain permission to cut or prune trees located on lands to which they have access under customary tenure claims, including fields in which they have planted crops and areas they are letting lie fallow. In some countries, depending on the type of forest, permission to cut trees may need to be obtained at the level of a district or commune rather than from the state forestry service (see Table 3-B). Even when a permit is not needed for cutting the tree, a permit may be required for transporting the timber. Wealthier villagers are often more able to get legal permits.

In Cameroon, logging permits are issued only by the central services of the Ministry of Forests and Wildlife; they do not apply to private forests. In the case of a forest plantation established on the private property of an individual, the legislation requires prior approval from the forestry administration before any logging can begin.

Requiring a permit for cutting or pruning a tree constitutes a disincentive to plant trees that would be used for firewood, poles, charcoal, or timber. Obtaining a permit is often costly in terms of time and resources that smallholders do not have. The same is true for transport permits. On the other hand, if people perceive that these regulations are not enforced, they may have little effect.

Develop simple local procedures establishing ownership and decision-making rights over trees planted and protected natural regeneration.



1

2

3

4

5



	SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
1-C	<p><b>All or some untitled land is the property of the state</b></p> <p>In many parts of Africa, national land laws specify that all or some types of untitled land are the property of the state. If those laws are enforced, locals may perceive that their claims to the land, even if they have lived there for generations, are insecure.</p>	<p>In Madagascar, prior to 2005 when a new land policy was implemented, all untitled land legally belonged to the State. State land fell into two categories: the public state domain and the private state domain. The only avenue by which private individuals or firms could acquire land ownership was by applying for a title to land in the private state domain. Importantly, the absence of a land title was enough to prove that the land was state land, given that the private state domain has never been mapped, nor are there markers to indicate the boundaries of this domain. In Cameroon, the majority of land is classified as national land. This includes lands held under customary law. The classification gives the state the formal right to expropriate these lands for other uses.</p>	<p>If untitled land is state property, people may not want to plant or protect trees in case they will not reap the benefits. They may fear the land or trees will be claimed by the state, especially if the trees are indigenous species. If the land is forest, they might also have an incentive to clear the land to stake their claim, or to plant exotic species that make their claim more visible.</p>	<p>One possible solution, if state law provides for it, is to help individuals who plant trees to obtain land certificates. This was a solution made possible in Madagascar under the 2005 land reform, which dropped the presumption that all untitled land belonged to the state and created a new category of tenure: untitled private property. Customary owners of untitled private property can apply for land certificates, which is a kind of title issued at the local level. To obtain a land certificate, the customary owner has to prove that they have put the land to productive use for five years or longer. Under state law, planting trees is considered evidence of productive use. Hence, when an FLR project works in areas with untitled lands, locals may be more likely to participate in the project in order to obtain a land certificate.</p>
1-D	<p><b>People may plant a tree or multiple trees as a means to establish a claim to state land</b></p> <p>In some parts of Africa, the state will recognize land claims made in the state domain. Traditionally, this involves demonstrating the claim by clearing the land, but increasingly, claims that involve planting trees are accepted. Even if this is not backed up by law, people may plant trees to assert claims in relation to neighbours or local authorities. The ability to do this may vary across social groups.</p>	<p>In a field site in Madagascar, one villager had planted eucalyptus trees in 1975 to delimit the area and mark his presence in state-owned land. He then was in a position to request the Commune to recognize his occupation of the land and to have the land surveyed at the provincial level. This allowed him to apply to the commune to have his occupation of that land recognized as legal.</p> <p>In the commune of Dzeng in Cameroon, following the demarcation of a new communal forest by the local government, some farmers reclaimed old cocoa plantations or family fallows located within the boundaries of the new forest. They proceeded to thin out the remaining forest fallow and plant fruit trees, thereby marking the development of the land and establishing a right to it. This process is a fundamental aspect of land tenure in Cameroon. Nevertheless, a more common way to make a claim is by clearing forest, known as the right of the axe (i.e., droit de hache), although fruit trees are typically planted to mark these areas.</p>	<p>Tree planting as evidence of productive use of land is clearly a positive development compared to using land clearing as the way to demonstrate use.</p>	<p>Encourage state and/or decentralized authorities to accept tree planting as a way to support land claims when demonstrating use is an option for legalizing a claim.</p>



1

2

3

4

5



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
<p><b>1-E</b> <b>FLR projects may take away individual or family lands that people were using for other uses</b></p> <p>Some FLR projects choose land areas for tree planting based on biophysical characteristics without regard for the social characteristics or consequences. If people do not have land titles, certificates, or some kind of recognized legal claim, the state has been known to take lands for other purposes, often without compensation. If claims are recognized, they are more likely to pay compensation, but this is often deemed inadequate for replacing local lands and livelihoods. This appears to happen more often in pasturelands—we did not find cases of agricultural land being taken over for forest restoration.</p>	<p>In Burundi, a country of steeply sloping hills, large-scale forest plantation projects were undertaken in the 1970s and 1990s with the objective of rehabilitating timber resources and preventing erosion. These pastures appeared to be under-exploited, yet they enabled fertility to be transferred from these vast spaces to the fields concentrated around the scattered family farms known as rugos, with their characteristic enclosures. In fact, the herds were brought back to an enclosure on the family farm each day, and the cow dung was used as brown manure in the fields, primarily to fertilize the bean fields, which are a staple food in Burundi. These pastures were originally the king's lands. In practice, they were commons, and the king was the figure of the institution that ran the country, but these lands were not his private property. With the advent of independence, these lands became national property; however, they remained managed as commons until the State initiated projects in the area. As a result, reforestation projects transformed these common lands into private state property. This may have had the effect of depriving some family farms of resources through the loss of fertility transfer from pastures to fields.</p> <p>In one of our study sites in Madagascar, a project carried out a regional reforestation campaign on behalf of the state on land that a family had used for pasturing cattle. The family planned to irrigate part of this land to grow rice and other seasonal crops, given recent declines in their cattle herd. The members of this family, who felt they had no power and were incapable of dealing with the state, ceded the land in favour of reforestation. In other locations, protected area demarcation encroached on family pastures, including in one site where some families had begun to plant irrigated rice.</p>	<p>This scenario creates a disincentive for locals to adopt FLR. It also potentially creates a conflict between the projects and locals, as the latter might sabotage the FLR project's plantations.</p>	<p>Establish more bottom-up FLR: collaborate with land users such that decisions over what to plant where are demand-driven.</p>
<p><b>1-F</b> <b>Collective lands are seen as vulnerable to expropriation by large-scale FLR projects</b></p> <p>Pastureland is often seen as an "easy" target when FLR projects seek to plant large numbers of trees over large areas. This is partly because pastureland is frequently common or collective land that is not held under a property title, and, in some areas, because pastoralists may be marginalized populations with weak land rights. Although compensation for land loss is sometimes provided, it appears less likely to be given for pasturelands.</p>	<p>In Madagascar, authorities are working to develop legislation that would provide the possibility of acquiring state-recognized community or collective rights to pasture and other collectively managed lands. Currently, these lands are prime targets for large-scale FLR projects. Locals in our study sites stated that they lack the power to protect their lands from expropriation by projects, which have a close relationship with the state. And because these collectively owned lands lack legal status, locals lose their rights to those lands.</p>	<p>This scenario could create a disincentive for locals to adopt FLR as proposed by projects; it could also be an incentive if locals see tree planting as a way to strengthen or retain their claims. It could potentially generate conflict between projects and locals, as the latter might sabotage the FLR project's plantations (such as by setting fire to the reforested plots or continuing to graze zebu in the area and thereby risk damaging the young trees).</p>	<p>Support efforts to provide legal recognition for pastureland and collectively held lands. Establish more bottom-up FLR: Collaborate with the users of these lands and demonstrate that the projects are not going to monopolize the pasture/collective land but rather work with local people. If required, assure negotiations with fair compensation (e.g., independent lawyers to support community negotiations).</p>

1

2

3

4

5


**Table 2: Scenarios relevant to general land use, characteristics of the parcel and local preferences**

The choices people make about protecting natural regeneration or tree planting are often related to the characteristics of the land or parcel, and the related decisions may vary by social group. One important consideration is the experience—or lack thereof—with agroforestry. In some cases, trees and agriculture are seen as incompatible. Other farmers consider whether the parcel is seen as too small for trees or too far away to plant valuable species. Erosion may be an incentive for tree planting despite other disincentives.



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
2-A	<b>Local people are more likely to protect natural regeneration/plant trees if the land is not good for agriculture</b>		
In some cases, villagers make a strong distinction between land that is naturally unsuitable for agriculture (sandy, clayey, rocky, marshy, or steeply sloped land) and land that has lost its agricultural qualities (due to ploughing, bush fires, pesticides, infrastructure). In the first case, the land is either abandoned because the household has other choices or improved by planting trees to create conditions favourable for agriculture (such as absorbing water in marshes, etc.). In the second case, trees are more often planted to restore soil (leguminous trees). Also in the second case, fallowing is a technique that allows trees to regenerate naturally to restore soil properties. Generally, tree planting is always coupled with other activities (livestock, subsistence, or cash crop agriculture).	In northern Madagascar, the locals divide land into two main categories: those that are suitable for farming (“fandra” and “tanimbary”) and lands that are not good for agriculture (“tany henjana”). If the land can be farmed, locals will cultivate it, often maximizing crop production by removing natural regeneration. On land that is not suitable for farming, locals will come up with alternative ways to gain some benefit, typically economic, such as grazing cattle or establishing tree plantations for charcoal production. In other cases, however, there is no such separation between trees and agriculture. Even in Burundi, where the parcels are quite small (see 2-B), farmers have a few trees around their homes, most often fruit trees, but sometimes even timber trees interplanted with banana plants, which can be integrated into agricultural practices; these are agroforestry systems. In Cameroon, there is often no clear separation between agriculture and tree planting; for example, in Dzeng, some farmers plant Moabi ( <i>Baillonella toxisperma</i> ) in their fields.	Where there is a strong separation between trees and agricultural lands, villagers are likely unwilling to establish a tree plantation or protect natural regeneration on land that they can farm; they are more willing to do so on lands that they consider unsuitable for farming. At the same time, we should not assume there is always a separation between trees and agriculture. Restoration can be achieved through agroforestry systems, which also help reduce the frequency of fires and thus reduce degradation—a prerequisite for forest restoration.	It is important to identify how trees, and which types of trees, fit into the agricultural system of the local population before proposing a restoration project. In Burundi, where firewood is scarce and the population faces food self-sufficiency challenges, trees or shrubs that quickly produce firewood without hindering agricultural production, along with fruit trees, are likely to interest the local population. In Cameroon, fruit trees are currently the species most in demand by the local population. However, the best way to identify which types of trees will be suitable for the local population is to ask them directly, to avoid common assumptions in this field.





1

2

3

4

5



## SCENARIO

## EXAMPLE

## FLR IMPLICATIONS

## POTENTIAL SOLUTIONS

### Local people are more likely to plant trees valued primarily for timber if they have larger parcels

Planting timber trees takes up space for a long time without generating income. Local populations who invest in timber plantations need to have large parcels of land and enough additional space to sustain their daily lives. This, along with other reasons, explains why local populations do not plant timber trees. Firstly, it is very difficult to obtain seedlings for forest trees. The techniques for propagating forest trees are not known to the villagers. Secondly, the period between planting a young tree and its maturity for harvest is very long, with some species taking up to a hundred years. Finally, harvesting timber, even from planted trees, requires legal documentation that is generally beyond the reach of villagers due to its cost and the complexity of the procedures.

In Sadojavato, most of the local people who have larger parcels that they consider unsuitable for farming have established Acacia and Eucalyptus plantations for timber and charcoal production. In the project sites in Cameroon, even on larger parcels, we did not encounter local populations planting trees with the hope of generating income from timber. Timber is still perceived as abundant and potentially profitable only in the very long term. The elites prefer to plant agroforestry systems with cacao, focusing primarily on the income from cacao rather than timber, leaving a few timber trees to regulate light over their cacao trees. Some local elites in Dzeng plant Moabi (*Baillonella toxisperma*) not for immediate timber income, which is too distant for them, but for patrimonial reasons; they want to preserve this culturally significant tree to pass on to their children and grandchildren.

It is essential to consider local perceptions and economic interests regarding timber species. In some contexts, planting timber species, which is a long-term investment, is not in the interest of local populations. This is especially true if there is no long-term guarantee of tenure rights to the land or the trees. It may also vary by social group (e.g., wealthier farmers may be more likely to plant species for timber). In Madagascar, however, when land cannot be cultivated, local people will look for other types of land use that can contribute to their livelihoods. If the parcels are large, locals may be willing to establish plantations of tree species valued primarily for timber that can either be used locally or sold.

It is important to understand local needs and perceptions regarding the incentives for local people to plant or avoid timber species. For example, the state should consider strong incentives to encourage owners of large parcels to reforest; simplify the procedures for harvesting timber from planted trees; and train communities on the techniques for propagating forest or timber trees.

### Local people are not likely to plant or protect naturally regenerating valuable trees on parcels far from their houses.

(Note: tree plantations, such as cocoa or coffee plantations, may be an exception)

Generally, the parcels around villages are converted for use as fields for subsistence or cash crops, like cocoa. As a result, the protection of natural forests can only occur on parcels that are farther from the houses. These parcels often contain fruit or medicinal trees that are utilized by the entire community or by families who own them. Local populations tend to plant certain trees close to their homes to better control access to their products. Distance considerations may vary by social group.

Fruit trees such as wild mangoes, mangoes, avocados, oranges, and lemons are commonly found in home gardens in Cameroon. This setup helps reduce fruit theft and provides easy access for cooking. However, some villagers in Cameroon do walk an hour from their homes to parcels where they harvest wild mangoes. These are naturally occurring trees that have been protected by the villagers.

Home gardens are crucial for disseminating improved species and contribute significantly to household food security. However, these spaces are relatively small. To develop more ambitious agroforestry and fruit tree activities on larger parcels farther from home, neighbours need to establish rules to prevent theft. While local populations often utilize trees on distant parcels, those closer to the village are more closely monitored and protected, reducing the likelihood of theft.

Facilitate negotiations among neighbours to agree on rules and enforcement methods, creating a local institution to manage the issue.

### Trees/ FLR for erosion control are a common interest (even on land where tenure is insecure)

Agriculture is the main livelihood of rural people in sub-Saharan Africa. Anything that threatens their ability to produce food, such as soil erosion, is a threat that they will seek to eliminate if possible. Consequently, in areas of Africa where erosion threatens farmland, people have developed indigenous forms of erosion control.

In Ambatoben'Anjavy Commune and parts of Sadojavato Commune in northern Madagascar, locals are experiencing erosion that decreases soil quality and reduces productivity on certain types of land. Even though most of the users of the parcels subject to erosion perceive their tenure to be insecure, they still use traditional methods of controlling erosion such as vetiver, ricebags, and possibly planting native or exotic tree species.

In areas where locals are using indigenous FLR practices, externally funded FLR projects can work with the local population to learn about these practices and improve their efficacy or expand their use. Locals are already adopting these practices because they are aware of their short and long-term benefits. Erosion control may or may not include tree planting. These areas may be prime for agroforestry practices that maintain year-round soil cover.

Valorisation of indigenous FLR practices by projects. Support for agroforestry/ agroecology.

1

2

3

4

5


**Table 3: Scenarios related to relationships with local authority (commune, forest management committee, traditional, other)**

If national authorities are far away and not seen as all that relevant locally, this is unlikely to be the case of subnational authorities. These include local offices of the state, which may have several levels by different names in different countries, as well as local traditional authorities, which are very important for landholdings in much of Africa. It could also include forest management committees or community forestry associations. This table focuses on how the role of these authorities affects incentives to plant a tree or to protect natural regeneration.



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
3-A	<b>Permission is needed from a decentralized state authority to plant a tree or protect natural regeneration</b>		
In some areas, permission from a local government authority is needed not only to cut down trees but also to plant trees. This may be more relevant to specific types of tenure. In countries where decentralized state authorities can own or control land, permission is likely to be needed to plant trees in those areas. It is important to understand who has the rights to the trees after planting.	Planting on one's own land is not usually an issue. However, on land other than one's own, tree planting can be seen as a land claim. Planting a single tree might not raise concern, but planting a large number of trees would require permission from the management authority. In Cameroon, for example, permission from the community to plant a tree is only necessary on communal forest lands, which are part of the community's private domain. In practice, however, in places like Dzeng, farmers sometimes plant fruit trees in the communal forest without authorization as a way to claim communal forest land. In Madagascar, some projects have required village groups to organize and identify state or communal land for reforestation, which requires the consent of the relevant authority.	Permission for tree planting on certain tenure types would have to go through the appropriate decentralized authority. In some cases, local people might be unaware that it is possible to get such permission or how to go about getting permission.	Facilitate negotiations and agreements with the subnational authority, including the conditions to benefit from the trees planted. It might also be worth considering community-based options where these exist, such as the "Schéma d'aménagement communal" (land use plans) in Madagascar or community forestry permits. The project should be aware of all such possible arrangements, as well as their pros and cons.
<b>Permission is needed from a traditional authority to plant a tree or protect natural regeneration</b>			
In some African countries, a local resident who has acquired a parcel of land does not need the village chief's permission to plant trees. However, non-locals or migrants must obtain permission from the village chief to undertake any long-term land management activities on the land allocated to them. Traditionally, planting trees on a parcel is a technique for marking property boundaries, so no non-local can plant a tree without the consent of the locals or the village chief.	In Cameroon, a local resident can plant any type of tree on a family parcel without informing the village chief. In contrast, a migrant who has received land from the village chief can only plant trees with the chief's approval.	Migrants have less incentive to plant trees and may be uncertain about their future rights to benefit from the trees they plant.	Negotiate with traditional authorities to obtain permission for tree planting, ensuring a clear distribution of rights and responsibilities.



1

2

3

4

5



## SCENARIO

## EXAMPLE

## FLR IMPLICATIONS

## POTENTIAL SOLUTIONS

3-B

**Permission is needed from a local authority to cut down a tree or gather tree products, such as nuts, leaves, or fruits**

If a permit is not required from a central state authority to cut down a tree (see 1-B), it may be required from a local authority. This likely depends on the location of the tree based on tenure: private land may not require permission, but land under a traditional authority might. A permit may be required from a local authority for transporting timber or tree products.

In Madagascar, theoretically, permission is always needed from either the regional or commune level to prune or cut down a living tree, especially in specific types of forest (protected areas, communal forests, etc.). The permittee must pay a fee or, in some cases, is obligated to reforest the harvested area. However, in practice, some locals ignore the permit requirements and cut trees according to their needs (i.e., for construction wood, to make charcoal, or expanding their fields).

Requiring a permit for cutting or pruning a tree is a disincentive to plant trees that would be used for firewood, poles, charcoal, or timber. On the other hand, if people perceive that these regulations are not enforced, they may have little effect. Additionally, local permits are usually much less burdensome to obtain than nationally issued permits. Furthermore, the law can be an incentive if the permittee is required to reforest the area, although in practice, this does not always occur.

Develop simple local procedures establishing ownership and decision-making rights over trees planted and natural regeneration that has been protected.



Women Preparing the Gnetum (Okok) Nursery in the Village of Minwoho, Lekié, Center Region, Cameroon (Ollivier Girard/CIFOR-ICRAF)



1

2

3

4

5



**Table 4: Scenarios related to relationships with other local people<sup>5</sup>, including between primary and secondary rightsholders**

The scenarios in this table refer to relationships among people within the village, rather than with state or local authorities. It considers the way in which tree planting may stake a claim, as well as scenarios related to secondary rights holders in relation to the “landowner” or primary rights holder. (Note: you will need to identify and use local terms for primary rights holders and the different types of secondary rights holders).

There are multiple types of secondary rights holders; the most common are renters (fixed time, fixed payment), borrowers (typically a more indefinite time period with a token payment), and sharecroppers. Sharecropping is a system where a landowner lets someone else farm his or her land in return for a share of the crop. In many areas, sharecropping is often a way for migrants to gain access to land, but

sharecropping can also take place between long-time residents and between family members. Although it is commonly a way for less well-off or landless individuals to gain access to land, in some areas, the reverse might occur: a wealthy farmer who has the means to farm additional land may enter into a sharecropping arrangement with a less well-off widow who is unable to farm the land she has inherited.



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
4-A	<b>Planting trees increases tenure security over areas in use</b>		
Tree planting can be a way of demonstrating use of an area that is not currently or obviously under agricultural production, such as fallow or pasture. It lets others know the land is being used by someone else and makes it less likely someone else will try to claim it for their own use. Tree planting can also mark and clarify borders.	In Madagascar’s customary tenure systems, a person can gain local recognition of his or her rights to both trees and the land on which they are located through planting trees. The rights of that person and his or her descendants will be recognized over multiple generations. In Madagascar’s legal system, planting a tree is also evidence that the tree planter has a long-term connection with the planted trees and the land on which they are found. Indeed, in the DIANA Region, planting a tree is one step in the process of acquiring a land certificate. Customary and legal recognition increase tenure security of the parcels. In Cameroon, to show the land is occupied farmers plant fruit trees, which are more visible than native species and thus more clearly mark the area.	In contexts where planting a tree increases tenure security, villagers are likely to have greater incentive to adopt FLR practices, particularly border plantings and living hedges along the boundaries, as well as agroforestry or fruit or nut-bearing trees in parcel interiors. This may also affect the choice of species: if visibility is important then there is a disincentive for native plants or natural regeneration.	This is an opportunity for FLR, but species choice should recognize the needs of the farmer in these circumstances. It is also worth exploring other ways to increase security if, for example, native trees are more desirable to the farmer.

<sup>5</sup> In this case, local people refers to anyone living in the community or village, including migrants.



1

2

3

4

5



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS
<b>4-B Secondary rights holders are often not permitted to plant trees on the land of the primary rights holder/owner</b>			
<p>In many parts of Africa, because planting a tree is seen as a way to make a land claim, landowners (primary rights holders) who lease or lend their land are often reluctant to allow the tenant (secondary rights holder) to plant trees on the land.</p>	<p>In Cameroon, a sharecropper or tenant cannot plant trees because doing so could be considered land development, which might enable him to claim ownership of the land. Both in Dzeng and Yoko, planting trees on a parcel is traditionally and unanimously recognized as a source of land ownership rights (exclusion and alienation). Therefore, it is strictly forbidden for non-natives, migrants, and “native non-landowners” to plant trees on parcels that have been allocated to them for a specific and limited use. Planting a tree on a parcel when one only has temporary rights results in the repossession of the said parcel by the owner. In the two communes studied in Madagascar, in most cases of sharecropping the landowner only allows annual or short-cycle crops (rice, market garden crops, rainfed crops) if the sharecropper is not related to him, as the agreement or contract could be terminated after one season. The owner does not allow sharecroppers to plant perennial trees, as this could mean ceding all rights. Even when the tenant farmer no longer works the land, it is possible that he may return at any time to claim rights to the planted tree, or even to the land itself.</p>	<p>Secondary rights holders might want to plant a tree to claim land, and thus conflicts could arise with the primary rights holder.</p>	<p>Facilitate negotiations and agreements between the primary and secondary rights holder that clearly lay out the rights of each. For example, the latter may be allowed to own the tree or harvest the fruits, but not to lay claim to the land.</p>
<b>4-C Some categories of secondary rights holders can plant trees with permission of the owner, often due to their familial relationship with the owner</b>			
<p>In some parts of Africa, family members may have different tree planting rights when they are secondary rights holders. This may vary depending on the relationship to the owner, their social group, or the tree species. It is also possible that under certain circumstances, some family members do not even need permission.</p>	<p>In northern Madagascar, we found that sharecropping sometimes is practiced on plots that the sharecropper will eventually inherit (i.e., the parents are the primary rights holders, and a future heir sharecrops the land while they are still living). The prospective heir will usually give a third or a half of his or her crops to the parents. In this type of sharecropping, future heirs have the right to plant trees on the plot without asking permission from their parents but with their knowledge. In contrast, a family member who is not a future heir to the plot must obtain permission from the primary right holder to plant trees on it.</p>	<p>Secondary rights holders who will inherit the land are more likely to be willing and able to adopt FLR; others might see needing permission as a disincentive. There is a potential for misunderstanding over who has rights to the tree(s) and tree products in both the short and the long term.</p>	<p>Encourage discussion among the relevant family members regarding short- and long-term rights to the trees in order to avoid potential conflict.</p>



1

2

3

4

5


**Table 5: Scenarios related to variations by social group**

Different groups of people in the same community or village may have fundamentally different rights or access to land, forest, and tree resources. They may also have different preferences. Although some of this may be addressed in Tables 1-4, this table assures that a few specific aspects are taken into account. This section considers poorer residents relative to wealthier ones, migrants relative to long-time residents, and women relative to men.



SCENARIO	EXAMPLE	FLR IMPLICATIONS	POTENTIAL SOLUTIONS	
5-A	<b>The rights to plant trees differ depending on the social group and ranking within the community</b>			
	Migrants, lower caste, poorer households, and youth may all be subjected to different rules regarding tree planting, both in terms of the types of trees that can be planted and their location.	In our sites in Cameroon, the rights to plant trees are the same for different social groups as long as they have their own land, but migrants, poorer households, and widows are less likely to have secure tenure rights. Similarly, a native of the community who only has usage rights to a piece of land does not have the right to plant trees on it. In northern Madagascar, some social groups, especially migrants who do not own land, generally do not have the right to plant trees. However, in Ambatoben'Anjavy, some migrants have access to the lands owned by long-time residents where they mine gold. Once the migrants stop mining, they are obligated to plant trees on the parcels where they have dug for gold. In this case, the trees belong to the long-time residents rather than the migrants who plant them.	Secure land tenure rights may be even more important for poorer and more vulnerable social groups if they are to participate in FLR.	Be aware of and adjust to the needs of specific households. Seek to strengthen land security for areas involved in FLR activities.
5-B	<b>Only men make decisions about tree management/Women can only plant trees with permission</b>			
	There is a common assumption that only men make decisions about tree management, but this is not necessarily true. In many cases, men and women make decisions together, and in some cases, there are tree species that women are more likely to manage, or parcels/locations where women can plant trees without needing permission from their husbands. There may also be species women are prohibited from planting. This may be linked to the belief or traditional knowledge that certain resins of certain tree species make women infertile or are lethal to curious children. In this case, it is important to specify the types of species that women cannot plant.	In Cameroon, both men and women have the right to plant and manage trees on their parcels without needing any formal permission. A woman who owns a parcel in her own name does not need anyone's approval to manage tree resources or plant trees on it. However, for couples, planting trees or managing tree resources on a parcel generally requires the prior agreement of the man, who is considered the head of the household. This is especially true for parcels of great importance or those cultivated by the man such as cocoa plantations, natural forests, or the home plot. For fields of subsistence crops managed by women, it is more often an exchange of information or a request for assistance from the husband rather than a request for permission. In some cases, the action of planting may even precede informing the husband. In the two Cameroonian communes, women plant fruit trees in their subsistence crop fields without needing their husbands' authorization. In Uganda, women have historically been prohibited from planting ficus ( <i>Ficus natalensis</i> ) because it signifies "chiefdom," implying that she is the head of the household.	It is important to carefully manage activities to prevent them from being dominated by men, and to use this situation to achieve the social objectives of restoration in a more equitable manner.	Strengthen the capacities of both men and women in managing tree resources. Ensure gender representation during training sessions. It is also important to promote a holistic household approach, meaning that activities should involve both partners, not just one.



1

2

3

4

5



## SCENARIO

## EXAMPLE

## FLR IMPLICATIONS

## POTENTIAL SOLUTIONS

5-C **Women are not landowners (primary rights holders) and have different land rights than men**

The household land may be held by men alone, by husband and wife jointly, or by women alone. Despite what is written in national law and policy, which often guarantee women's equal rights to own land, this is less common in practice. When women own land, it might be smaller and of lower quality than parcels owned by men. However, women's rights and access to land are context specific and need to be explored in each location. Projects often inadvertently reinforce or even deepen inequalities by failing to account for women's (sometimes hidden) roles and interests.

Women are landowners in the two Cameroonian communes of this study. They possess as many land rights as men. However, the findings show that women's rights are more threatened than those of men, especially in societies where the patriarchal customary regime still has strong influence. In both communes, there are female heads of households who own land with different types of rights. In the commune of Yoko, where society is still male-dominated, women, although having strong land rights, are more insecure than men.

Without specific encouragement, women's engagement in activities is likely to be low. It is important to understand how tree planting affects women's land rights.

Work with women's organizations and engage with women in the community. Implement a strategy to secure women's land rights; raise awareness among men.

5-D **Daughters do not inherit land**

Despite what is written in national law and policy, which often guarantee daughters the right to inherit land, they may receive, if any, smaller and more marginal areas than their brothers.

In the two communities in Cameroon, daughters and sons inherit family land, though it disproportionately goes to sons. In some cases, access to family land is open to any descendant who wants to invest in it. This usually results in the appropriation of large areas by those with greater labour capacity (financial means or physical strength), generally males. Moreover, even when women inherit land in equal proportions to their brothers, these lands are often later reclaimed by their brothers when they move to live with their husbands, especially if the land has not been "developed." Brothers often argue that a woman only has rights to her husband's land. Ultimately, while daughters do inherit family land, they generally do not have long-term security over their parcels.

Daughters may have less opportunity to express their interests and preferences, or to plant trees. Given the benefits generated by the project, intrafamilial conflicts could arise.

Implement an inclusive approach in identifying plots or intervention sites at the household level to minimize conflicts.



Private Garden, Rice Plantation in the Village of Minwoho, Lekie, Center Region, Cameroon (Ollivier Girard/CIFOR-ICRAF)

1

2

3

4

5

## STEP 4 IN THE FIELD: Initial review of the results



### ACTIVITY 1: SUMMARISE AND REVIEW YOUR NOTES

Summarize or “clean up” your notes from focus group discussions as captured in Annex 3 and review this information for inconsistencies. If there are differing opinions in any of the rows, highlight those for follow-up and discussion. Make sure to refer back to any relevant information from Annexes 1 and 2.



### ACTIVITY 2: CONSIDER THE FLR IMPLICATIONS AND SOLUTIONS

For each row you have filled out, use the information from the scenarios in Step 3 of this toolbox to review and consider the implications and potential solutions for FLR, and complete those sections of the table. The implications and potential solutions you develop are not final, but rather are meant to serve as guides for subsequent community discussion.



*Spraying Crops in Ambatoben'Anjavy, Madagascar (Ulrich Razafison/CIFOR-ICRAF)*





1

2

3

4

5



Presentation on FLR and Tenure at the University of Diego Suarez, Madagascar (Anne Larson/CIFOR-ICRAF)

FLR and Tenure Discussion in Yoko, Cameroon (Anne Larson/CIFOR-ICRAF)

## STEP 5 IN THE FIELD: Validation, adjustment and co-creation of solutions

Share the findings with the community members to discuss if they are an accurate reflection of the local context with respect to tenure factors likely to influence FLR practices. To ensure that proposed solutions to tenure-related FLR challenges are locally appropriate and legitimate, engage the community members in identifying how FLR practices are likely to be affected by the observed land and tree tenure patterns, and what actions can be taken to address those challenges.



### ACTIVITY 1: PRESENT RESULTS TO COMMUNITY

Present the results of the completed tables in Annex 3 back to the community members.

- Discuss the following questions:
  - Do the results accurately represent the situation in the community? Are there errors or differences in interpretation?
  - Is anything missing that is important to know?
- Present and discuss the FLR implications of the different tenure scenario findings. Do focus group participants agree, or do they have other interpretations?



### ACTIVITY 2: DISCUSS POTENTIAL SOLUTIONS AND THEIR FEASIBILITY

- Identify with the group the priority solutions desired by community members and the ones most feasible for the project.
- Determine what else is needed to adopt FLR practices.



## References

Boone C. 2019. Legal empowerment of the poor through property rights reform: tensions and trade-offs of land registration and titling. *Journal of development Studies*, 55(3), 384-401.

Le Roy E, Karsenty A, Bertrand A. 1996. *La sécurisation foncière en Afrique: Pour une gestion viable des ressources renouvelables*. Paris: Karthala.

Maxwell D, Weibe K. 1998. Land tenure and food security: exploring dynamic linkages. *Development and Change*, 29(2), 261-288.

Migot-Adholla S, Hazell P, Blarel B, Place F. 1991. Indigenous land rights systems in sub-saharan africa: a constraint on productivity? *The world bank economic review*, 5(1), 155-175.

Robinson BE, Holland MB, Naughton-Treves L. 2011. Does secure land tenure save forests? A metaanalysis of the relationship between land tenure and tropical deforestation. *Global environmental change*, 21(4), 134-140.



Diolo Celine Plants Gnetum (Okok) in the Village of Minwoho, Lekié, Center Region, Cameroon (Ollivier Girard/CIFOR-ICRAF)



Implemented by



## Contact Details

**Anne M. Larson**  
Project Lead  
[a.larson@cifor-icraf.org](mailto:a.larson@cifor-icraf.org)

**Rebecca McLain**  
Project Co-lead  
[rebecca.mclain@gmail.com](mailto:rebecca.mclain@gmail.com)

**Abdon Awono**  
Scientist, CIFOR-ICRAF  
[a.awono@cifor-icraf.org](mailto:a.awono@cifor-icraf.org)

**Patrick Ranjatson**  
LRA Madagascar  
[jpranjatson@gmail.com](mailto:jpranjatson@gmail.com)

