

Securing Tenure, Forests and Livelihoods in Madagascar and Cameroon

Key findings on local tenure systems in Madagascar

Fabrico Nomenjanahary, Patrick Ranjatson, Narinjanahary Andriamananjatovo, Rebecca McLain, Renaud Randrianasolo and Anne Larson

Background

Securing Tenure, Forests and Livelihoods in Madagascar and Cameroon is a participatory action research project designed to develop tools that enable forest landscape restoration (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. Funded by Germany's Federal Ministry for Economic Cooperation and Development (BMZ), the project compares community tenure systems in Madagascar and Cameroon, two African countries investing in tenure reform and FLR. This factsheet presents key findings from the project's Madagascar component, summarizing the main tenure patterns in our two study sites: the Ambatoben'Anjavy and Sadjoavato Communes in northern Madagascar (Figure 1).

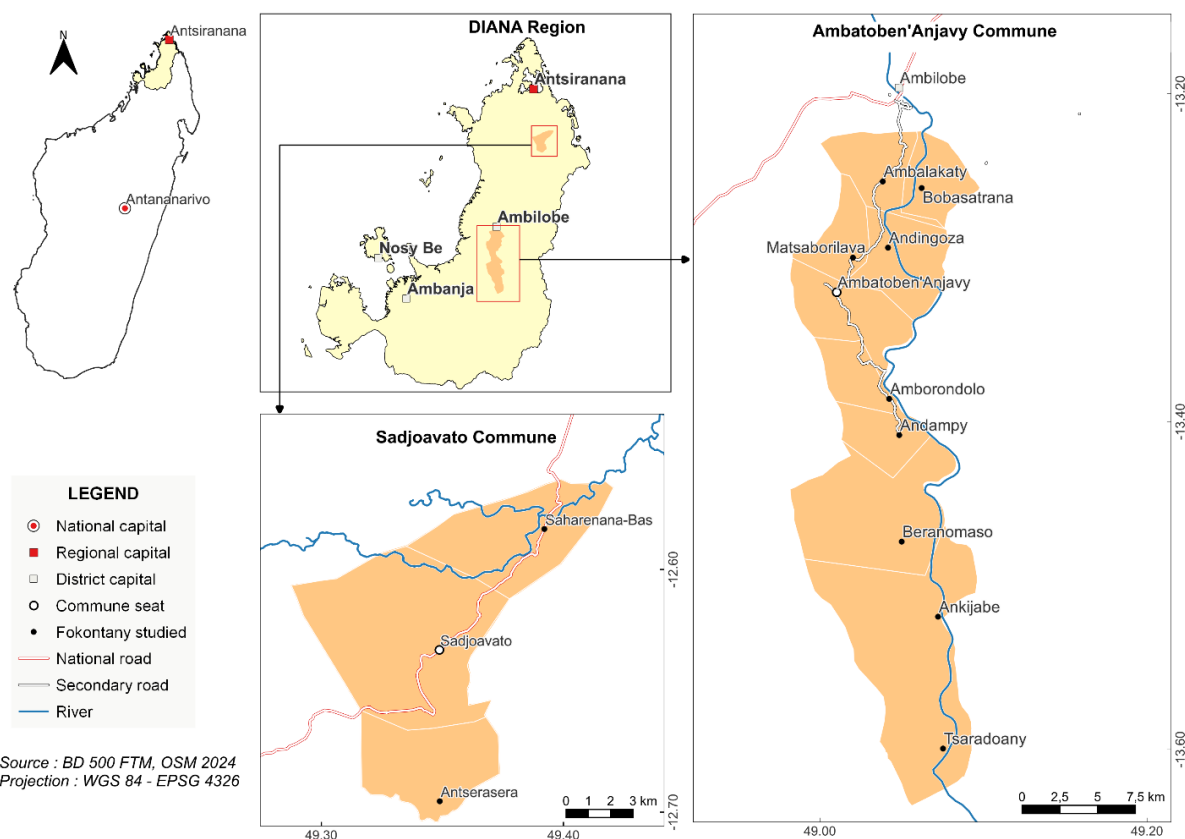


Figure 1. Location of Sadjoavato and Ambatoben'Anjavy Communes



Figure 2. Eucalyptus plantation in Sadjoavato

Study context

Both communes are located along National Road 6, a paved highway linking the two sites to Antsiranana, the most populous settlement in northern Madagascar. Sadjoavato Commune is about 50 kilometres south of Antsiranana, and its residents have relatively good access to the region's major markets. Ambatoben'Anjavy Commune is further south along National Road 6, roughly 130 km from Antsiranana. The Mahavavy River, which flows along the commune's eastern edge, frequently floods from December to March. Consequently, large portions of Ambatoben'Anjavy Commune are inaccessible by motor vehicle for several months each year.

As in most parts of rural Madagascar, agriculture is the predominant source of livelihood in both communes. The local farming system consists of permanent rice fields in the river bottoms, with the uplands used for dryland or rainfed crops. The *fondra*, or areas between the bottomlands and uplands, are used for agroforestry, where annual and perennial subsistence crops are grown in

combination with commodity crops, such as cacao beans and sugar cane, as well as fruit trees.

Sadjoavato is characterized by extensive reforestation throughout the commune (Figure 2), primarily of *Eucalyptus* spp. and *Acacia mangium*. Reforestation began in the 1980s and continued under the GreenMAD project into the 1990s and the 2000s with support from the German government. Trees harvested from these reforested parcels are made into charcoal or lumber, and now constitute a major source of revenue for landowners and sharecroppers.

In Ambatoben'Anjavy, reforestation parcels are concentrated in the northern part of the commune, which is close to the town of Ambilobe and is therefore easily accessible for projects. Cashew trees have been planted on much of the land unsuitable for agriculture and are an important source of revenue for locals during nut harvesting season. Additionally, many families in Ambatoben'Anjavy engage in gold mining along the banks of the Mahavavy River to diversify their incomes.

Message 1: Local perceptions differentiate lands belonging to public institutions from those belonging to villagers. The latter lands are owned by individuals/ households or extended families.

In most of rural Madagascar, land tenure is predominantly shaped by local custom, although formal legal tenure isn't entirely absent. From a formal legal standpoint, most rural land is either state land or untitled private land. However, no maps or boundary markers distinguish state lands from untitled private land. In the absence of legal ownership documents – such as land titles or land certificates – villagers rely on their perceptions of ownership to justify how they use or manage lands. Consequently, in most of Madagascar, local perceptions of tenure status are more relevant than legal categories.

- In Ambatoben'Anjavy and Sadjoavato, locals perceived land as falling into three main ownership categories: (i) individual/household land, (ii) extended family or lineage land, and (iii) other types of land, such as land belonging to the state, persons outside the family, or associations (Table 1).
- Individual/household land was by far the most common type of local ownership, comprising nearly two-thirds of the plots held by the survey respondents in both study sites. Extended family or lineage land was the next most common, with slightly more than one-quarter of the plots falling into this category. Very few plots were viewed as belonging to public institutions.
- A chi-squared test found no significant difference between the two communes with respect to the frequency of the three perceived ownership categories.

Land perceived as belonging to public institutions

- Land perceived as belonging to public institutions is generally land that villagers do not use for farming or other livelihood activities.
- When they reforest such lands, villagers consider them to be a donation from the state, the commune or an external project that is promoting reforestation.
- In-depth qualitative data suggest that villagers are more interested in the trees planted than in the land itself. Indeed, we found that conflicts arose over tree ownership, but not over

ownership of the parcels on which the trees were located. Some villagers have been able to sell their reforestation plots based on the value of the trees.

- In 2024, an external project provided support for locals to obtain land certificates. Many reforested stand owners took advantage of this opportunity to obtain land certificates for the parcels they had reforested.
- Migrants, particularly those who had previously been able to access agricultural land only through sharecropping, were particularly interested in obtaining land certificates for their reforested parcels.

Message 2: People acquire access to land in many ways, but inheritance from a family member is the most frequent mode of access.

In rural Madagascar, farming is a critical contributor to most households' livelihoods. Since not all villagers own land, understanding the ways in which people gain access to land is important.

- Access to land in Ambatoben'Anjavy and Sadjoavato was gained in a variety of ways (Table 2). Inheritance was by far the most common means by which people had access to land in both communes, with most land being inherited from family members rather than through marriage.
- The next most common modes of access were inter vivos gifts, sharecropping, and purchases from private individuals.
- Other modes of access included rentals; purchases from an institution (government or private entity); lands allocated by a government or local authority (e.g., community or elder); and donations from a charitable organization. However, few parcels were acquired in these ways.
- For parcels that were not inherited, we found some important differences between the two study sites in the ways in which land was acquired. Sharecropping was more common in Sadjoavato than in Ambatoben'Anjavy (15.88% of parcels vs 10.84%), and inter vivos gifts were nearly twice as frequent in Ambatoben'Anjavy as in Sadjoavato (12.10% of parcels vs 6.24%).
- A chi-squared test found a significant difference between modes of access for the two sites.

Table 1. Local perceptions of tenure categories in Ambatoben'Anjavy and Sadjoavato

Local land category	Ambatoben'Anjavy (N=878)		Sadjoavato (N=852)	
	Number of parcels (n)	Percent (%)	Number of parcels (n)	Percent (%)
Individual/household land	504	57.40	508	59.62
Family land	248	28.25	222	26.06
Other land ^a	126	14.35	122	14.32
Total	878	100	852	100

Chi-squared test results: $X\text{-squared} = 1.1281$, $df = 2$, $p\text{-value} = 0.5689$

a Other land includes land perceived as belonging to another private person or individual not related to the person in the household, an employer, a company, a cooperative, the village, the commune, or the national government.

Table 2. Modes of access to parcels in Ambatoben'Anjavy and Sadjoavato

Mode of access	Ambatoben'Anjavy (N=876)		Sadjoavato (N=850)	
	Number of parcels (n)	Percent (%)	Number of parcels (n)	Percent (%)
Inherited from my family	459	52.40	447	52.59
Inherited through marriage/from my spouse's family	56	6.39	66	7.76
Gift	106	12.10	53	6.24
Sharecropping	95	10.84	135	15.88
Purchased	103	11.76	82	9.65
Other	57	6.51	67	7.88
Total	876	100.00	859	100.00

Chi-squared test results: $X\text{-squared} = 40.87$, $df = 15$, $p\text{-value} = 0.0003347$

Message 3: The local ownership status of a parcel does not necessarily imply that the "owner" has the right to transfer the parcel by inheritance. This is especially true for lands in the extended family and "other" ownership categories and might be attributable to the need to reduce the potential for latent conflicts regarding ownership.

Ownership in the two study sites does not necessarily translate into full ownership as envisioned by the bundles of rights framework articulated by Schlager and Ostrom (1992).¹ This is because there is no strict translation of the term



¹ Schlager E and Ostrom E. 1992. Property rights regimes and natural resources: A conceptual analysis. *Land Economics* 68(3): 249–262.

Tableau 3. Catégorie de propriété locale en fonction des droits de transmission par héritage

Who has the right to transfer the parcel by inheritance?																
Land category	Ambatoben'Anjavy (N=312)								Sadjoavato (N=271)							
	Person(s) living in the household		Family member not living in the household		Others		Total		Person(s) living in the household		Family member not living in the household		Others		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Individual/Household	180	80.00	26	11.56	19	8.44	225	100			15	7.89	5	2.63	190	99.9
Extended family	24	41.38	33	56.90	1	1.72	58	100	34	57.63	23	38.98	2	3.39	59	100
Other type of lands	23	79.31	4	13.79	2	6.90	29	100	15	68.18	7	31.82	0	0	22	100

Chi-squared test results: Ambatoben'Anjavy X-squared = 71.953, df = 10, p-value = 1.858e-11; Sadjoavato X-squared = 65.102, df = 10, p-value = 3.876e-10. Note: Parcels were taken into account in the analyses only when the respondent answered 'yes' to the question, "Do you have the right to transfer your rights by inheritance?" and considered the other persons with whom the respondent shares this right

Note: n= Number of plots; % = Percentage of plots

"ownership" in the Malagasy dialect, which was used during the field research. Furthermore, ownership as conceptualized in the bundle of rights framework might not be relevant to the local concept of land rights. Determining whether persons claiming "ownership" have the right to transfer a parcel through inheritance should reveal the extent of the rights that such persons think they have. Specifically, it will enable us to know whether they hold the parcel alone, or with someone else.

- In both Ambatoben'Anjavy and Sadjoavato, land ownership in the local perception does not always equate with having the right to transfer land via inheritance (Table 3). We found a significant statistical difference between the frequencies of local ownership categories and possession of inheritance transfer rights in both communes.
- The percentage of parcels held by individuals or households, where the respondent or another person living in the households has the right to choose to whom they can transfer the land through inheritance, is very high: 80% and 89.47% for Ambatoben'Anjavy and Sadjoavato, respectively. However, for a small percentage of individual or household parcels, decisions regarding transfers through inheritance are made jointly between individuals or households and family members living outside the household or even other persons.
- For family lands, the right to transfer through inheritance is much more likely to rest with a family member outside the household than with the individual or household using the land. However, the extent to which this holds true varies by location. In Ambatoben'Anjavy, the right to transfer a family land parcel through inheritance is less likely to be held by the household than by a family member living outside the household. In contrast, in Sadjoavato, someone living in the household is more likely to have the right to transfer a family land parcel via inheritance than a family member living outside the household.
 - A plausible explanation for this difference is that in Sadjoavato, family land is considered land that hasn't been formally distributed to the children through an "acte de notoriété" (affidavit) at the commune level. In Sadjoavato, the extended family is typically not very large, generally consisting of the children, parents and grandparents, if still living.
 - By contrast, in Ambatoben'Anjavy, the extended family is much larger, and more akin to a lineage or clan. Additionally, social cohesion is still very strong in Ambatoben'Anjavy, leaving less room for individuals or households to make unilateral decisions about the family land parcels they have access to.
- For a large percentage of parcels categorized as family land, respondents reported that they hold the right to transfer land through inheritance

Table 4. Perception of tenure security by local ownership category

Risk of losing rights within five years	Ambatoben'Anjavy (N=728)						Sadjoavato (N=846)					
	Household land		Extended family land		Other types of land		Household land		Extended family land		Other types of land	
	n	%	n	%	n	%	n	%	n	%	n	%
Very unlikely	209	49.88	77	38.89	38	34.23	248	48.53	8	39.82	2	20.18
Unlikely	109	26.01	53	26.77	25	22.52	147	28.77	79	35.75	20	17.54
Likely	74	17.66	51	25.76	31	27.93	85	16.63	22	9.95	33	28.95
Very likely	13	3.10	13	6.57	15	13.51	20	3.91	13	5.88	28	24.56
Don't know	14	3.34	4	2.02	2	1.80	11	2.15	19	8.60	10	8.77
Total	419	100	198	100	111	100	511	100	221	100	114	100

Chi-squared test results: Ambatoben'Anjavy: (X-squared = 181.43, df = 10, p-value < 2.2e-16; Sadjoavato: X-squared = 124.44, df = 12, p-value < 2.2e-16)

Note: n= Number of parcels; % = Percentage of parcels

either alone or jointly with another person living in the household (41.38% for Ambatoben'Anjavy and 57.63% for Sadjoavato). This is surprising as we expected decisions to transfer land through inheritance would take place at the extended family level rather than at the household level.

- For lands whose ownership status is categorized as "other" (i.e. land that belongs neither to a household nor to the extended family), a high percentage of respondents (79.31% for Ambatoben'Anjavy and 68.18% for Sadjoavato) still reported that decisions to transfer such land through inheritance are made within the household.
 - One plausible explanation can be found in the way households occupying or using this category of land perceive their rights. In some cases, the legal owner – e.g., a colonial company – may have abandoned the land but still legally retains title to the land. As long as the perceived owners ("others") do not evict the person now occupying the land (technically a squatter), the latter may consider that the right to transfer the parcel to another person of their choice through inheritance is part of the secondary rights they hold legitimately because they have been using or occupying the parcel for a long period. In other words, the rights that they can transfer through inheritance might only be use or management rights rather than full ownership, as they recognize that they don't hold the primary right to the land.

- For land in the "other land" category, particularly for reforestation parcels reported as being state lands, a few respondents claimed they own those parcels because the land had been given to them by the state, the commune, or reforestation projects.

Message 4: Most parcels in Ambatoben'Anjavy and Sadjoavato were perceived as being secure, irrespective of their local ownership status.

- Household/individual lands were most likely to be perceived as secure, followed by extended family lands.
- Lands categorized as belonging to those other than household or family members were much less likely to be considered secure.

Local perceptions of tenure security/insecurity are important to understand, particularly in areas such as Ambatoben'Anjavy and Sadjoavato, where few people seek to obtain titles or land certificates. A crucial question is whether perceptions of tenure security differ depending on local ownership categories. We found that tenure security perceptions differed in both communes for the three ownership categories (Table 4). However, the difference was statistically significant only in Ambatoben'Anjavy.

In Ambatoben'Anjavy, plots in individual/household ownership were more likely to be perceived as secure than those categorized as extended family or other lands.

- The risk of losing rights to individual/household land was perceived as very unlikely or unlikely on 75.89% parcels, compared with 65.66% of extended family plots and 56.75% for other plots.
- Conversely, plots belonging to institutions or persons other than a family or household member were more likely to be perceived as insecure than household or family plots.
- On 41.44% of "other" plots, respondents reported that it was very likely or likely that they would lose their rights, compared with only 20.76% for household plots and 32.33% for extended family plots.
- A chi-squared test shows that for parcels in Ambatoben'Anjavy, there was a significant difference in the perception of tenure security depending on the type of local ownership category.

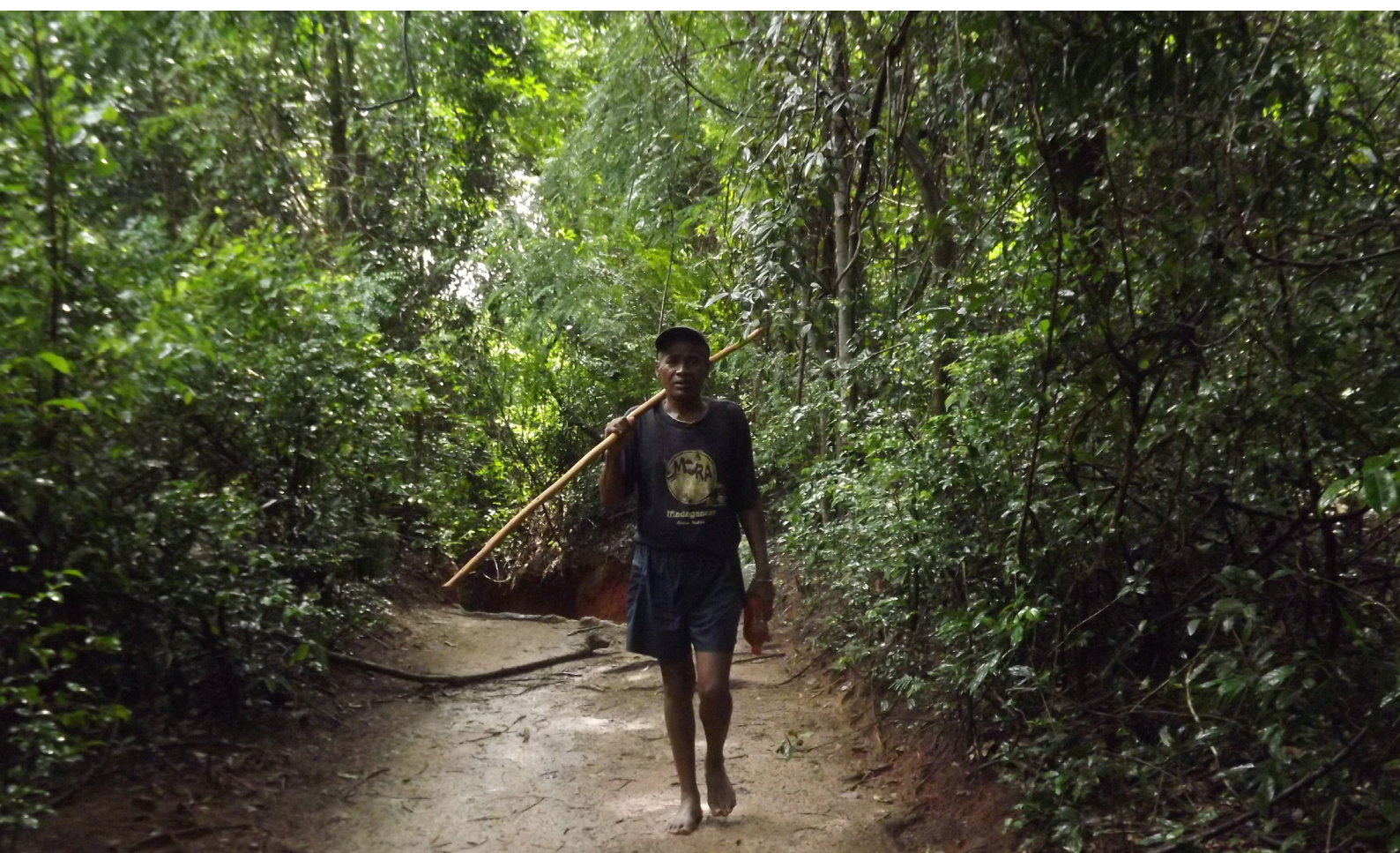
In Sadjoavato, tenure for most individual/household and extended family parcels was also considered

secure (77.30% and 75.57%, respectively, with an unlikely or very unlikely risk of rights being lost in the next five years).

- Parcels reported as belonging to others were much less likely to be considered secure (37.72%).
- On 53.51% of "other" plots, respondents reported that it was very likely or likely that they would lose their rights, compared with only 20.54% for household plots and 15.83% for extended family plots.
- A chi-squared test shows that for parcels in Sadjoavato, these differences in perceived tenure security were statistically significant.

Our qualitative data revealed several factors that were likely to influence perceptions of security:

- People feel secure when their elders are still alive. When elders give up their control over land by transferring it to heirs while they are still alive, conflicts may arise. This might explain why extended family plots are perceived as less secure than household plots.



- Possession of papers (*petits papiers*) that can be used as evidence of land ownership enhances feelings of tenure security.
- For land purchases, people seek to secure their ownership claims by getting the villages (*fokontany*) or commune to recognize that the purchase occurred.
- For reforested parcels that people have acquired through a state initiative or reforestation project, the villagers think that mapping their boundaries and recording those details at the communal level are sufficient evidence of ownership. They therefore think there is no need to seek greater legal security, such as a land title or certificate.

Implications for FLR practitioners and policymakers

- According to local perceptions, land tenure rights are much more complex than the often-presumed duality between individual private land and public land. Moreover, our study shows there are many rights that can be held at different levels within a household, or within a larger family group.
- Our study also shows that, contrary to the conventional wisdom, most parcels in the study area are perceived as being secure at the present time. Efforts to increase tenure security by formalizing land rights need to incorporate ways to register the different bundles of rights as well as the individuals or groups holding them. Without such protection, there is a risk that more powerful individuals or groups will appropriate the land for themselves, thereby causing more vulnerable rights holders to lose access to their land entirely.
- Forest landscape restoration initiatives need to take into consideration the full range of rights that exist on land targeted for restoration, as those rights will affect who should be included in restoration decisions, what types of restoration are appropriate, and who will benefit.



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