

GLOBAL SOIL WEEK 2021

Benin Country Report



GSW2021: Benin Country Report

Monitoring the effects of Land Degradation Neutrality measures on land governance: a follow-up of the implementation of the UNCCD Decision 26/COP.14 on land tenure

December 2021



Written by

Check Abdel Kader, Baba
TMG Research gGmbH

Anna Kramer
TMG Research gGmbH

Charles Tamou
TMG Research gGmbH

Acknowledgements

We would like to express our sincere gratitude to our partners APIC NGO for supporting the implementation of the Global Soil Week project in Benin, and especially to Alidou Takpara, Cherifatou Sinagnissiré, Abou Adam, Abdou Ganiou Abou Chabi and Kpéman Rachidatou. We also wish to express our appreciation to the staff of Benin forest administration, and particularly those involved in the management of the Three Rivers gazetted forest, who facilitated our research on the ground. We are thankful to the communities of Kabanou and Sikki Gando for their engagement with the research project and commitment to on-the-ground activities.

We would also like to thank our TMG colleagues, Kai Siong Chong and Elena Müller for their valuable contribution.

The Global Soil Week research project is implemented with the technical support and financial contribution of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Table of contents

Acronyms	4
List of Figures	5
List of Tables	5
Preface	6
1 Introduction	6
2 Global Soil Week	7
2.1 Background information	7
2.2 Implementation approach and objectives	7
2.3 Translating the Global Soil Week into national processes	8
3 Institutional settings and policy frameworks	9
3.1 LDN targets and measures	9
3.2 LDN policy and legal framework	10
3.2.1 Policy framework and regulations on private island	10
3.2.2 Policy framework and regulations on forest island	10
4 Background Information on the selected case study	11
4.1 The Three River gazetted Forest	11
4.2 Institutional framework supporting the management of the forest	12
5 Mapping process of communities' land and user rights	13
6 Mapping results	15
6.1 Kabanou communities' dependency and impact on forest land and resources	15
6.2 Access to land: Overlapping formal and informal access modes and mechanisms	18
6.3 Conflicts and trade-off between forest conservation and the achievement of LDN targets	20
7 Implications of LDN measures on communities' rights to land and opportunities to reconcile both agendas	22
8 Conclusion and recommendations	23

Acronyms

ANDF	Agence Nationale du Domaine et du Foncier [National Agency for property and land tenure]
APIC	Association pour la Promotion des Initiatives Communautaires (NGO)
APiDeV	Association pour la promotion des Initiatives de Développement (NGO)
CBD	Convention on Biological Diversity
COP	Conference of Parties
DGEFC	Direction Générale des Eaux, Forêts et Chasse [Government Directorate General for Water, Forests and Hunting]
FAO	The Food and Agriculture Organization
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (German national development cooperation agency)
GPS	Global Positioning System
GSW	Global Soil Week
INSAE	Institut National de la Statistique et de l'Analyse Economique [National Institute for Statistics and Economic Analysis]
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
ITPS	Intergovernmental Technical Panel on Soils
LDN	Land Degradation Neutrality
LDN TSP	LDN Target Setting Programme
MCVDD	Ministère du Cadre de Vie et du Développement Durable [Ministry of Living Environment and Sustainable Development]
NTFPs	Non-Timber Forest Products
PFMP	Participatory Forest Management Plan
PMAF	Projet de Modernisation de l'Administration Foncière [Land Administration Modernization Project]
RGPH4	4ème Recensement Général de la Population et de l'Habitat [4th General Census of Population and Housing]
SGDs	United Nations Sustainable Development Goals
Synpa	Synergies Paysannes
UNCCD	United Nations Convention to Combat Desertification
UNDP	The United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VGGT	Voluntary Guidelines on the Responsible Governance of Tenure

List of figures

Figure 1: The Head of the Division for Rural development, land rights, forests, and animal husbandry in the German Ministry of Economic Cooperation and Development (BMZ) making a speech during GSW 2019 © Kader Baba	8
Figure 2: Map of the Three Rivers gazetted forest showing its four management zones	11
Figure 3: Implementation framework of the Three Rivers gazetted forest participatory management plan (source: DFRN, 2010)	12
Figure 4: Mapping phases, processes, timeline, and key objectives	14
Figure 5: Recording the GPS coordinates of a farm plot in Djaoulè: © Ganiou Abou, 2021	15
Figure 6: Communities' main sources of income (source: Household survey implemented in April 2021, n=200)	16
Figure 7: Opportunities for Kabanou village communities to access agricultural lands outside the forest area	16
Figure 8: Communities' own perception of their dependency on forest lands and resources. Perspectives from Kabanou, a village bordering the Three Rivers gazetted forest	16
Figure 9: Farmland occupancy history of Kabanou village communities (Source: Household data implemented in April 2021)	17
Figure 10: Farm size in hectare of Kabanou communities (Source: Household survey, April 2021)	18
Figure 11: Land access mode in Kabanou (Source: Household survey, April 2021)	18
Figure 12: A receipt for forest management contribution fees paid by a farmer in Kabanou village (Household survey, April 2021). For data protection reasons, the name, signature and receipt number have been hidden.	19
Figure 13: Spatial distribution of Kabanou village communities' farm plots in the Three Rivers gazetted forest (TMG Research, 2021)	20
Figure 14: Types of conflicts over forest land and resources reported by Kabanou village communities (Household survey data, February 2021)	21
Figure 15: Example of a house marked with two red crosses by the forester to threaten household members if they do not comply with stated rules in Kabanou. © Kader Baba, 2019	21

List of tables

Table 1: Payment mechanisms to access forest land and resources (cultivation and grazing) provided for in the Three Rivers PFMP	19
Table 2: Payment schemes (formal versus informal mechanisms) observed in the village of Kabanou (Field data, April 2021)	20

Preface

Land degradation neutrality (LDN) is increasingly recognized as an effective mechanism to address land degradation and sustain ecosystems. Although this mechanism could accelerate the achievement of SDGs, we should approach with caution many of the policy measures proposed within countries' LDN target-setting programmes to avoid violating rights to land and resources.

Analysing the case study of a participatory forest management plan (PFMP) to preserve a gazetted forest in Benin,¹ this report reveals how poor implementation of well-designed policy mechanisms could inadvertently produces outcomes that run contrary to expectations. The report stressed that the acceptance and widespread implementation of LDN, especially in those countries suffering

most from land degradation impacts, will depend on efforts to ensure social justice by securing communities' legitimate rights to forest land and resources. This can only be achieved if responsible land governance structures are established, and smallholder farmers supported to actively participate in forest and resource conservation.

The report summarized the findings of a collaborative research project by TMG Research and APIC NGO within the framework of Global Soil Week. It benefited from technical support and funding of by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the German Federal Ministry for Economic Cooperation and Development (BMZ).

1. Introduction

According to the United Nations Convention to Combat Desertification (UNCCD), "healthy and productive land can play an unparalleled role as an engine of economic growth and a source of livelihood for billions worldwide, including the most vulnerable populations. Achieving land degradation neutrality can become an accelerator of achieving SDGs across the board" (UNCCD, 2021a). Yet, 33% of the Earth's soils are currently degraded, and over 90% could become degraded by 2050 (FAO and ITPS, 2015; IPBES, 2018), making it impossible to reach the SDGs, especially those directly affecting smallholder farmers.²

Land degradation neutrality (LDN) has the potential to mitigate the loss of productive land through the recovery of degraded areas.³ Hence, it is a critical tool to address land degradation and contribute to reaching various SDGs (UNCCD, 2021b). While the urgency to accomplish LDN is evident, its widespread implementation, especially in regions suffering most from land degradation will depend on efforts to ensure social justice and good governance (Dallimer & Stringer, 2018). In many countries suffering from high levels of land degradation, sustainable land use is likely to become widespread only

through the efforts of smallholder farmers. Unfortunately, efforts to put smallholder farmers at the centre of LDN processes are often hampered by insecure access to land and top-down or coercive management approaches, especially of forest resources. The call for a "zero tolerance policy" in addressing communities' encroachment into forest land, as expressed in Benin's LDN target-setting programme, does not consider the severe risk of violating forest-dependent communities' legitimate tenure rights in accessing the resources they depend on for their livelihoods.

For smallholder farmers to become the drivers of sustainable land management, and to actively participate in the achievement of LDN at national level, it is essential to promote responsible land governance structures. This means guaranteeing tenure security for smallholder farmers and other marginalised natural resource users. It is against this background that the landmark [Decision 26 on land tenure](#) was reached at the 14th Session of the Conference of the Parties to the UN Convention to Combat Desertification (COP 14) in New Delhi in 2019. Decision 26 explicitly recognises communities' tenure rights, as

¹ Gazetting refers to the process of mapping and legal recognition of a forest by the state. Gazetted forests are reserved and protected under forestry and environmental laws.

² SDG 1 (no poverty), SDG 2 (zero hunger), SDG 5 (gender equality), SDG 10 (reducing inequalities), SDG 15 (life on land)

³ <https://www.unccd.int/actions/achieving-land-degradation-neutrality>

defined in the Voluntary Guidelines on the Responsible Governance of Tenure of Soil, Land, Fisheries and Forests (VGGT), and their key role in implementing LDN measures.

This report presents the results of a pilot study implemented by TMG Research and the NGO APIC in Benin to support the implementation of the above-mentioned UNCCD decision. It also explores innovative

ways to reconcile communities' tenure rights (to forest land and resources) with forest conservation, which is frequently the focus of policy-makers in engaging with international environmental conventions and agreements (e.g., UNFCCC, CBD, Paris Agreement). This pilot study was implemented as part of Global Soil Week, a research project by TMG Research with technical support and funding from GIZ.

2. Global Soil Week

2.1 Background information

Global Soil Week (GSW) is organised by TMG Research in close partnership with GIZ. It is a unique international platform bringing together a diverse range of actors to develop new policies and strengthen existing ones on sustainable soil management and responsible land governance. GSW's transdisciplinary format allows soil management and land governance to be addressed in an integrated way that acknowledges the overlap and synergies between these two issues.

Since its launch in 2012, GSW has accumulated a large volume of knowledge and experience from both its practical and theoretical work, while its focus and design have continuously

evolved in response to ongoing policy debates and land management programming. Since 2019, GSW has closely followed the processes towards achieving LDN and contributed to a stronger focus on the importance of implementing LDN measures through responsible land governance, prioritising tenure security for smallholder farmers and other marginalised natural resource users according to the principles of the FAO's *Voluntary Guidelines on the Responsible Governance of Tenure* (VGGT). TMG's commitment to this approach informed the thematic focus of the Global Soil Week 2021: "Creating an enabling environment for green recovery" (Kramer et al., 2021).

2.2 Implementation approach and objectives

GSW 2021 aims to help create enabling environments in which the legitimate tenure rights of vulnerable communities are protected within LDN initiatives. GSW combines the proactive generation of local knowledge with experience-based action research. The information generated in this way is fed back to international policy arenas in the field of sustainable development.

The first component of GSW 2021, action research, empowers civil society organisations to monitor the effects of LDN measures on the tenure rights of land users. A participatory tenure mapping approach was applied in two regions of Kenya and Benin. The use of a customised digital tenure mapping tool allowed marginalised land users to monitor potential or

existing conflicts between forest restoration goals and their rights to forest resources.

The second component, linking local knowledge with international policy making, is a direct contribution to the implementation of the UNCCD/COP14 decision on land tenure. The GSW pilot studies accordingly provide the basis for an empirically sound reporting on land governance and tenure rights at the upcoming UNCCD COP15.⁴ Beyond reporting at the UNCCD conferences of parties, the approach described here can also highlight the cross-cutting relevance of land governance and tenure rights in the context of the other two Rio Conventions (on Biodiversity and Climate Change).

⁴ The fifteenth session of the Conference of the Parties to the UN Convention to Combat Desertification (UNCCD COP 15) was originally rescheduled to take place in the final quarter of 2021. Due to the COVID-19 pandemic, it was postponed until 2022 (date tbc at time of writing).

TMG Research believes that international reporting processes require well-founded contextual information generated from local knowledge. Local knowledge, generated for

example through participatory tenure mapping, can inform and shape policies at national and international level thereby increasing accountability at various levels.

2.3 Translating Global Soil Week into national processes

A consultation meeting involving several organisations and institutions was organized in Benin to co-develop a research project in support of national efforts to achieve the LDN targets of the UNCCD COP 14 decision on land tenure. Participants included government forestry officials, the government's representative to the UNCCD from the Ministry of the Living Environment and Sustainable Development (MCVDD), researchers from Beninese universities, and several representatives of civil society organisations.⁵

All parties agreed that on the need to conduct further research on Benin's gazetted forests for three main reasons. First, the country's commitments to international environmental conventions and treaties focus on forests and protected areas. It is therefore not surprising that Benin's LDN target-setting programme stresses the need to protect forests and rehabilitate degraded lands. Secondly, most

of Benin's gazetted forests are subject to a participatory forest management plan (PFMP), a formal management instrument applied by the state. The PFMP is designed not only to support community participation in the management of a forest, but also to ensure that community rights to use forest land are respected, while guaranteeing sustainable use of forest resources. Thirdly, because most of Benin's gazetted forests are governed through a combination of formal and informal regimes, conflicts often arise between the main stakeholder groups (adjacent communities and forest officers), exacerbating the power imbalance and jeopardizing communities' rights. Studying the case of a gazetted forest provides an opportunity to better understand the complex interactions within forest governance and explore ways to place community rights to land and resources at the centre of LDN implementation and monitoring.



Figure 1: The Head of the Division for Rural development, land rights, forests, and animal husbandry in the German Ministry of Economic Cooperation and Development (BMZ) making a speech during GSW 2019 © Kader Baba

⁵ Synergies Paysannes (Synpa), the Association pour la promotion des Initiatives de Développement (APIDeV), the Association de Développement des Communes du Borgou, and the Association pour la Promotion des Initiatives Communautaires (APIC)

3. Institution settings and policy framework

This chapter briefly outlines Benin's LDN targets and planned measures. It also describes the policy and legal environment supporting the implementation of LDN in Benin, and provides an overview of the legal framework supporting community participation in forest management plans in Benin. This framework guided the pilot study implemented by APIC and TMG Research as it focused on a gazetted forest where specific management rules and regulations determine access to forest land and resources.

3.1 LDN targets and measures

To reverse land degradation, Benin has committed itself to restoring at least 50% (1.25 million ha) of land degraded during the 2000–2010 reference period, to limit the loss of non-degraded land to 5% (398,200 ha), and to reach a 12% (1,364,604 ha) net improvement of vegetation cover by 2030 (Feenstra et al., 1998; Global Mechanism of the UNCCD, 2018). To achieve these ambitious objectives, specific targets have been formulated. These include the following:

- To lower, from 21% (1,484,900 ha) to 5% (353,547 ha) the conversion of forests and natural savannas into agricultural and urban land uses;
- To increase by 5% (154,895 ha) the percentage of forest cover;
- To cut by half (350,000 ha) the area of forest with decreasing net productivity;
- To increase overall productivity on agricultural lands that had declining (631,400 ha) or stable (1.8 million ha) productivity during the 2000–2010 reference period;
- To end the conversion of wetlands for other types of land use.

Given the importance of forests for Benin's sustainable development and for the achievement of the country's commitments

to international environmental agreements, it is not surprising that actions are focused on forest conservation and rehabilitation. Policy measures formulated to support the achievement of LDN include:⁶

- The integration of LDN into national and local policy processes (integration of sustainable land management into Benin's long-term development plan, "Benin Alafia 2025", and the country's strategic development plan for 2018–2022, and the adoption by the Council of Ministers of a national action plan for sustainable land management (PAN-GDT).
- The strengthening of the policy and institutional framework on forests and protected area management and monitoring. This includes strong enforcement of forest laws and regulations (forest code, PFMPs, decree to ban export of charcoal and timber logging in protected areas, eviction of farmers and other users from unauthorised zones of forests and protected areas).
- The active involvement of local actors and municipal authorities. Districts and municipalities are key actors in fighting land degradation and in achieving LDN in Benin. This is supported by the establishment of land management committees and sub-committees at both district and village levels.

⁶ Benin's LDN measures and definitions of targets and hotspots can be found in the UNCCD knowledge hub: <https://knowledge.unccd.int/home/country-information/countries-having-set-voluntary-ldn-targets/benin>

3.2 LDN policy and legal framework

LDN targets and measures cover both agricultural and forest lands where different management regimes define access to and use of resources. This sub-section briefly presents the policy and legal frameworks that determine access to private agricultural land, and to forest lands.

3.2.1 Policy framework and regulations on private lands

Since 2010, Benin has been engaged in a fundamental reform of the land sector. The reform resulted in Law n° 2017-15 of August 10th, 2017, which modifies and extends the previous Law n° 2013-001 of August 14th, 2013, on the Benin Land Code (referred to as [Code Foncier et Domaniale](#)).⁷ The code addresses land administration in its entirety and creates a new institutional framework. It also establishes a national land registry and outlines responsibilities of the Agence Nationale du Domaine et du Foncier (ANDF) for its implementation and management. To this end, the [Land Administration Modernization Project](#) (PMAF), financed by the Embassy of the Netherlands to Benin, was set up to support the development of the land information system.

Regarding common land and access to grazing resources, Law n° 2018-20 of April 23rd 2019 defines general regulations for the sustainable management of pastoral resources as well as the prevention and management of pastoral conflicts. This law repeals Law N°87-013 of September 1987 which prohibited the clearing of grazing resources for cultivation and recognises the right of herders and pastoralists to graze their livestock on natural and unenclosed areas after harvesting. The enforcement of this law was instrumental in facilitating herders' access to additional livestock grazing areas, especially during dry seasons when natural pasture is not available, as well as reinforcing ties and synergies between cultivation and livestock farmers.

3.2.2 Policy Framework and regulations on private lands

Benin is a signatory to several international conventions, agreements, and regional initiatives. These include the UN Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), the Paris Agreement on Climate Change, and the AFR100 Forest Landscape Restoration Initiative. While these conventions and agreements have different thematic foci (biodiversity, climate, land degradation, etc.), Benin's strategies to achieve those commitments are, in most cases, based on forest conservation.

The management of forests, water resources, and hunting, is organized and governed by the [Law No. 93-009 of July 2nd, 1993](#) and its implementing [decision n° 96-271 of July 2nd, 1996](#), as well as by the law 2002-16 of October 18th, 2004 related to wildlife management in Benin. Following the adoption of the above law, Benin developed a [forest policy, legal and institutional framework](#) together with a priority action plan.

These reforms, supported by a new strategy of transferring power to local authorities in relation to the sustainable management of natural resources, led to the development of PFMPs as a tool that guarantees the participation of dependent communities' in forest management, including access to and use of forest resources. The institutional framework that governs stakeholders' participation in forest management, as defined in the PFMPs, is presented in the coming chapter.

“The Participatory Forest Management Plans (PFMP) guarantees the participation of dependent communities' in forest management, including access to and use of forest resources.”

⁷ <https://www.andf.bj/index.php/le-foncier-au-benin/textes-sur-le-foncier/loi-2017-15-du-10-aout-2017-modifiant-et-completant-la-loi-2013-01>

4. Background Information on the selected case study

This chapter describes the Three Rivers gazetted forest and the implementation framework of the forest participatory management plan mentioned above.

4.1 The Three Rivers gazetted forest

Located in northern Benin, the Three Rivers gazetted forest falls within one of the hotspots identified in the Benin LDN target-setting programme (MCVDD, 2017) for priority actions to achieve LDN.⁸ Three Rivers is the largest gazetted forest in Benin (259,300 hectares) and contributes directly to the livelihoods of over 50,000 residents spread across 48 villages and hamlets around the forest (INSAE, 2016; Monti et al., 2020). It is also home to numerous animal species, including harnessed bushbuck, common duiker and hartebeest antelope, hippopotamus, buffalo, warthog, and guenon monkeys. An assessment of fish diversity in the forest's waterways reveals over twenty fish families and about forty species (DFRN, 2010).

Due to the growing demand for agricultural land and other services, the Three Rivers gazetted forest, like many others in Benin, has experienced dramatic rates of degradation. From 1987 to 2016, the percentage of farmland within the Three Rivers forest increased from 7.1% to 45.29% at the expense of forest and savannas, despite the existence of a PFMP aimed at reversing forest degradation (Monti et al., 2020).

The management plan, developed in close collaboration with adjacent communities and municipalities, provides for four forest zones where access to land and resources is subject to specific rules and restrictions (see Fig. 2). The core zone enjoys strict protection. All human activities are forbidden, except those for research and monitoring purposes. In the protection zone, access to forest land and resources is allowed under certain conditions and rules specified in the forest management plan. The agroforestry zone is where forest-adjacent communities are allowed to farm and raise livestock, provided they respect the provisions of the PFMP. The service zone covers transportation networks and other infrastructure used for forest management, including forest rehabilitation, enrichment planting, and timber logging.

The practical management of the forest is organised within small spatial units called forest management units. For instance, the Three Rivers gazetted forest has been split into ten management units, including the unit of Mani that covers the village of Kabanou, one of the GSW research sites.

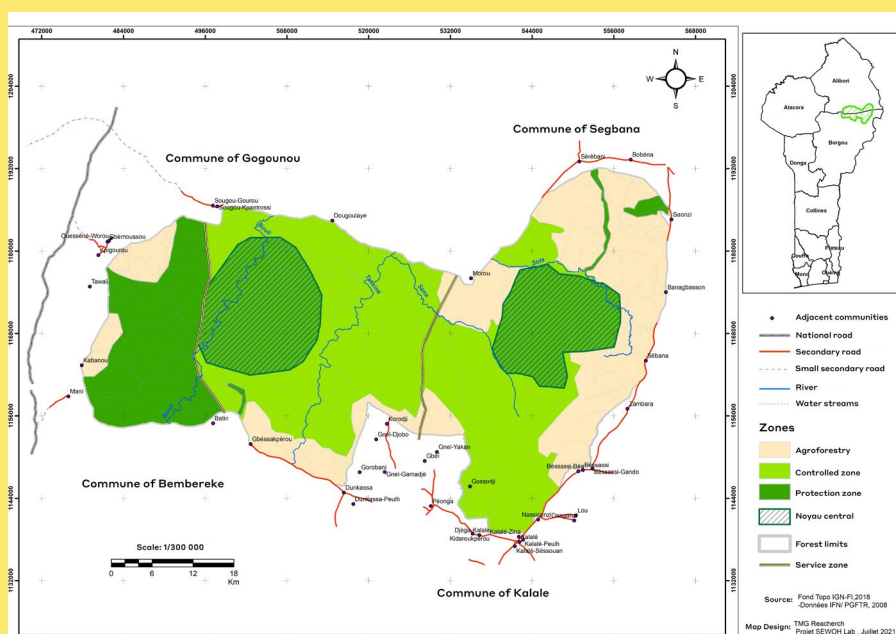


Figure 2: Map of the Three Rivers gazetted forest showing its four management zones (Source: TMG Research, 2021)

⁸ For information on the case study and its relevance for Global Soil Week please visit https://assets.ctfassets.net/rrir183ijfda/5cMre3kSxVGa8sLf7cTb5w/da335bce3ff20b64582a5eb0dea1f18b/Benin_InfoBrief_GSW2021_130921.pdf

4.2 Institutional framework supporting the management of the forest

A participatory forest management plan (PFMP) is a formal document, adopted by the Benin Council of Ministers and intended to promote forest sustainable management, while ensuring the long-term delivery of services upon which communities depend. It is developed through a participatory process that involves local community representatives, municipal authorities, civil society organisations, and Benin forest officers, and includes detailed description of forest stakeholders' roles and responsibilities, modalities of accessing forest land and resources, as well as conflict resolution mechanisms. It is a framework designed to reconcile forest conservation goals with communities' needs and interests. Figure 3 illustrates the PFMP implementation framework.

Three key stakeholder groups participate in the implementation of the PFMP of the Three Rivers gazetted forest. These are: i) the state, represented by the forest

administration and its decentralized bodies; ii) the municipalities, represented by the mayor in some instances; and iii) local communities organized into village organisations, councils, or management committees.

The state participates in the implementation of participatory forest management plans through the Ministry of the Living Environment and Sustainable Development (MCVDD), and especially the Directorate General for Water, Forests and Hunting (DGEFC). At the local level, the Technical Unit for Forestry Management (Cellule Technique d'Aménagement Forestier, CTAF) participates in the implementation of the management plan on behalf of the DGEFC. Its core responsibilities include the development, implementation, and control of operational plans, ground coordination of stakeholders' activities, provision of training and technical advice to local co-management structures and forest officers, and monitoring of contribution funds collected from forest users.

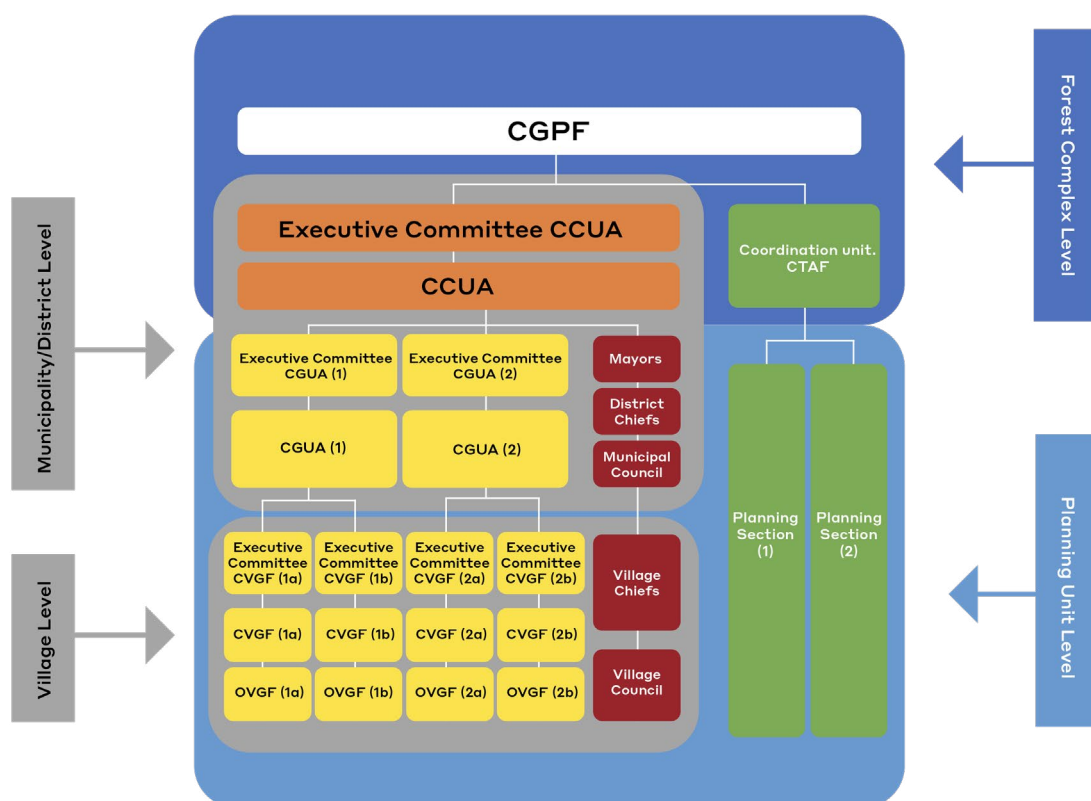


Figure 3. Implementation framework of the Three Rivers gazetted forest participatory management plan (Source: World Bank, 2020, DFRN, 2010)

The municipalities participate in the implementation and monitoring of PFMP through different offices, including those of the village chiefs and counsellors, the district chiefs, the municipal council, and the mayor.

At a village level, communities participate in forest management through a Village Forest Management Organisation (Organisation Villageoise de Gestion de la Forêt, OVGF) and a Village Forest Management Council (Conseil Villageois de Gestion de la Forêt, CVGF), the latter of which is headed by an executive committee. The roles and responsibilities of the CVGF executive committee include planning the activities to be carried out by communities, community mobilisation for the implementation of forest management activities, collection of forest contribution fees from villagers, and conflict resolution.

The most effective organ at ground level is the management council of the forest management unit (Conseil de Gestion de l'Unité d'Aménagement, CGUA). Its functions are to draft the annual workplan and budget of the forest management unit, to monitor and control the implementation of the annual workplan and budget after they have been adopted, etc.

The Conseil de Coordination des Unités d'Aménagement (CCUA) and the forest participatory management council (Conseil

de Gestion Participative de la Forêt, CGPF) enjoy general jurisdiction over the Three Rivers gazetted forest. The CCUA has the mandate to coordinate and supervise the activities of the CGUAs, including the adoption and approval of annual workplans and budgets, and the resolution of conflicts arising from the implementation of the PFMP. The CGPF is the highest authority at the level of the forest and meets twice a year to adopt the annual workplan and budget of the forest management plan, and to evaluate its implementation.

Despite the above comprehensive framework, it is important to note that most of the village level organisations are inactive. The provision of Article 16 of the Benin Forest Code stating that forest authorities should manage forests "(...) following participatory methods that associate adjacent populations" is scarcely implemented. According to a recent report by the World Bank, fraud in the collection and management of forest contribution fees, unlicensed wood harvesting, cumbersome management processes, and weak enforcement of the benefit sharing mechanisms stipulated in the PFMP are among the main challenges to implementing PFMPs in Benin. Furthermore, the report stated that nearly 90% of possible revenues from forest royalties and tax collection neither reach the communities nor the forest administration (World Bank, 2020).

5. Mapping community land and usage rights

From the initial meetings with the main stakeholders to the final validation of the mapping products, the mapping was conducted in a five-phase process, including a situational analysis, community mobilization, mapping preparation, mapping of tenure rights, and the validation of map products (see Fig. 4).

The first phase (situation analysis) consisted of desk and field research to understand communities' needs and perspectives on the implementation of the PFMP and mechanisms to access land and forest resources. These insights helped to refine the following phases.

The second phase (community mobilization) involved sensitizing community members to the project objectives, clarifying the mapping

processes, and using mapping outputs and products. Twenty-five village representatives (enumerators) received a short training course on the mapping process and digital tools used for the household survey and to map farm plots.

The mapping preparation phase was implemented in two stages. First, desk research was conducted to collect and digitalize official maps of the Three Rivers gazetted forest, including the boundaries of the different zones. These boundaries were then verified on the ground by a geographic information systems (GIS) specialist with the support of the officer in charge of the forest management unit of Mani, which includes the village of Kabanou and its hamlets.

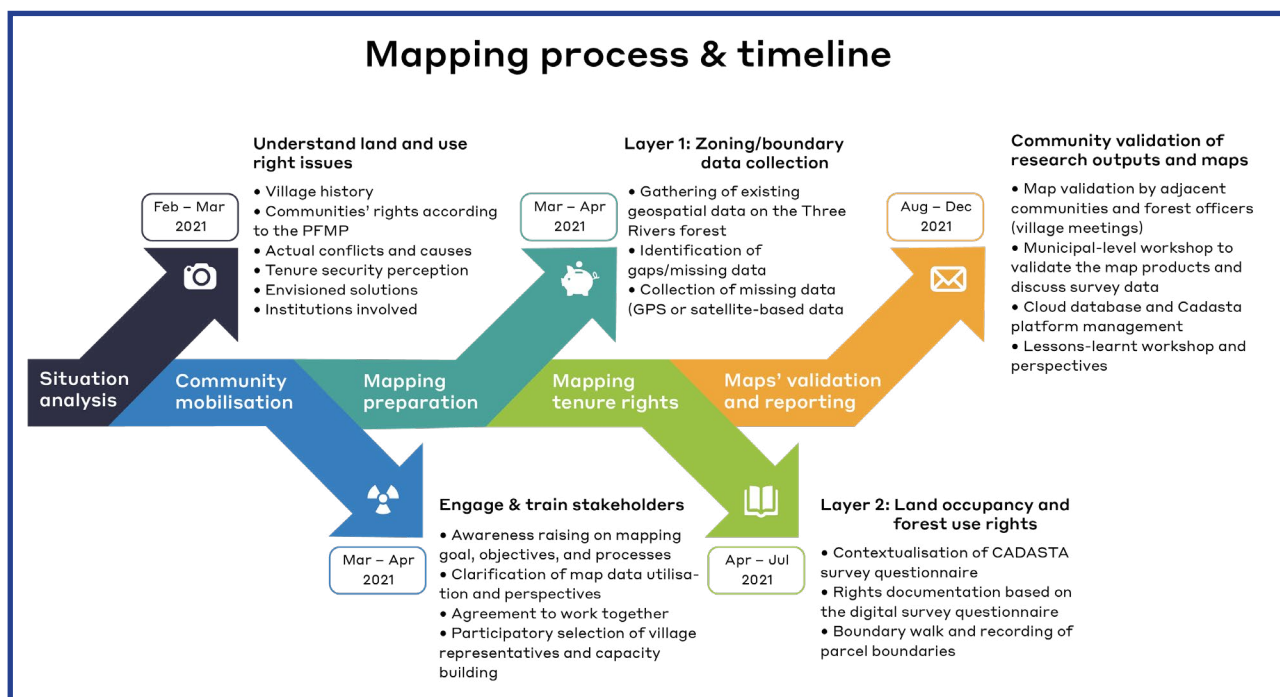


Figure 4: Mapping phases, processes, timeline, and key objectives

The fourth phase (mapping tenure rights) consisted of field work to collect data and data processing using the [CADASTA platform](#). Prior to data collection, a survey questionnaire was developed and uploaded on [Survey123](#), an application connected to the CADASTA platform. This application was used to collect various sets of data including village information, household characteristics, access to land and tenure arrangements, conflicts over resources, etc. At the end of the survey, the interviewee, accompanied by a technician from APIC and one enumerator mapped farm plots using a GPS device. Common resources such as grazing areas and watering points were also georeferenced, although this activity proved challenging due to the lack of clear delineation between areas.

The technical work consisted of uploading and cleaning the survey database, then linking survey data with the farm plots that were georeferenced during the data collection phase. The data were then analysed, and dashboards and thematic maps were created to visualize the outputs of the survey (see Ch. 6, Mapping results).

The final phase of the mapping process involved the validation of mapping products with local communities and the forest

administration. This took place during village meetings involving farmers whose lands had been georeferenced and representatives of farmer groups. During these sessions, the maps were presented, explained, and discussed with farmers to confirm the accuracy of the information collected and mapped and to consider additional relevant information. The maps were revised to include communities' perspectives and finally presented to the forest administration for feedback and cross-checking with relevant legal frameworks before final validation. The validation process concluded with a multi-stakeholder workshop where the mapping process and products were presented, analysed, and discussed.

“The maps were revised to include communities' perspectives and finally presented to the forest administration for feedback and cross-checking with relevant legal frameworks before final validation.”



Figure 5: Recording the GPS coordinates of a farm plot in Djaoulè. © Ganiou Abou, 2021

6. Mapping results

The results of the household survey and participatory mapping were divided into three main sections. Following a brief analysis of forest-adjacent communities' dependency on forest resources, the second section explains mechanisms for accessing forest land and resources, including communities' perspectives on tenure security. The final section analyses conflicts over access to forest land and resources, and outlines their implications for conservation goals and LDN targets.

6.1 Kabanou community's dependency and impact on forest land and resources

The village of Kabanou counts 331 households with an estimated 2,928 inhabitants (RGPH4, 2013). Women represent about 49% of the total population. Kabanou is one of forty-eight villages in or near the Three Rivers gazetted forest and is in the western part of the forest. It comprises seven large hamlets including Kabanou central agglomeration, Bokonbwerou, Karakou Daasi, and Sansé located on the edge of the forest, and Koussounin, Djaoulè, and Teera located inside the forest. Only the camp of Dah Kpaare is outside the forest limits.

Survey data reveals that 82% of respondents, regardless of gender, depend on agriculture for their livelihood needs. The sale of agricultural products and agropastoralism also contribute to household revenues (see Fig. 6).

While men could also rely on livestock (agropastoralism), women have fewer alternatives, as their revenues depend heavily on access to forest land for agriculture and the harvest of non-timber forest products (NTFPs). Further exploration of communities' sources of revenue other than accessing forest land and resources reveals that over 85% of men and 90% of women have no other plots of land outside the forest area (see Fig.7).

These figures suggest that Kabanou village communities depend critically on the Three Rivers gazetted forest for their livelihood needs. Protecting communities' and especially women's access to forest land and resources is therefore vital in meeting household food needs. Figure 8 highlights Kabanou village communities' own perception of their dependency on forest lands and resources.

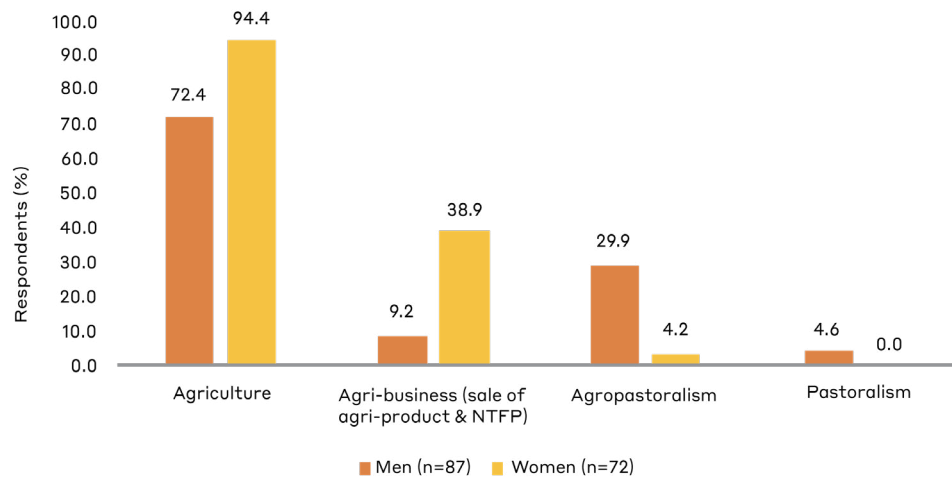


Figure 6: Communities' main sources of income (Source: Household survey implemented in April 2021, n=200)

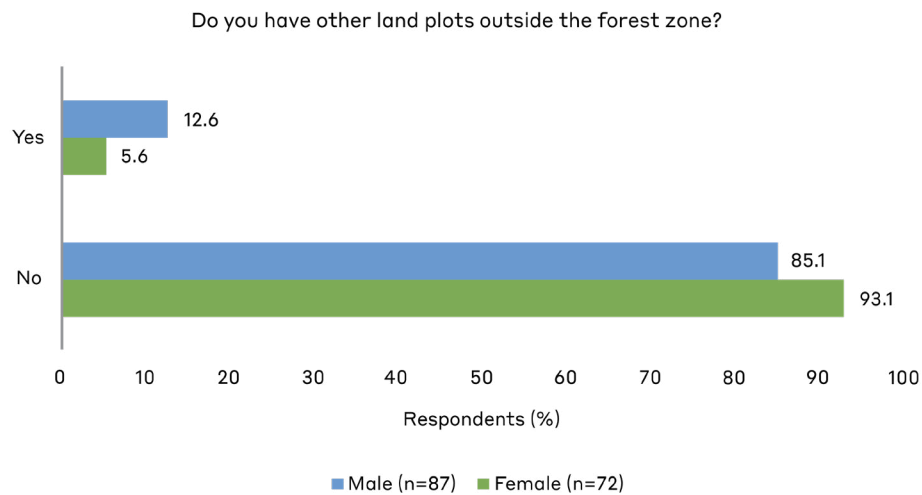


Figure 7: Opportunities for Kabanou village communities to access agricultural lands outside the forest area

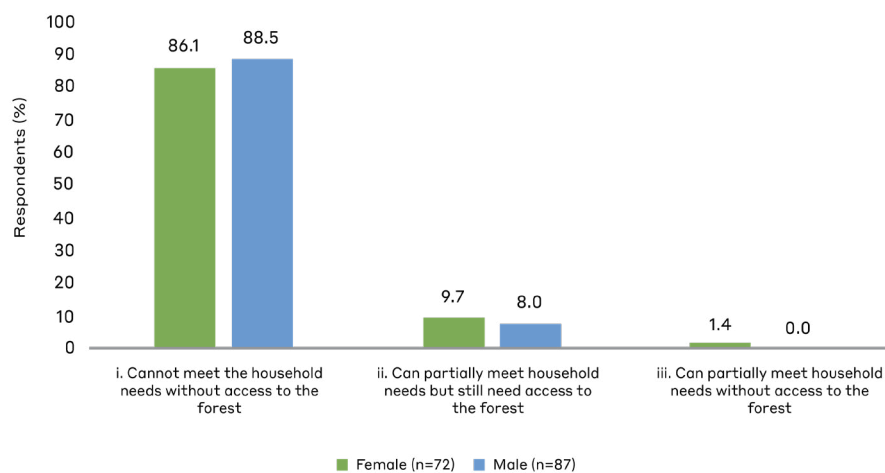


Figure 8: Communities' own perception of their dependency on forest lands and resources. Perspectives from Kabanou, a village bordering the Three Rivers gazetted forest

Data on land use history and farm plot dynamics were analysed to get a better picture of whether community need for and use of forest land and resources are the main reason for increasing forest degradation. Field data show that the current land occupation (farm plots) is not only a result of recent migration into the forest or new occupation of forest land. Regardless of the respondent's current location (inside or adjacent to the forest), about 35% stated that the farm plots currently occupied have been used for more than 30 years or were used by their parents who were born there (see Fig 9). The data also show that about 33% of respondents have occupied new plots of land over the last ten years,⁹ confirming an increased demand for agricultural land. Data analysis reveals that the farmers who occupied new plots of land over the last ten years mainly come from communities living on the edge of the forest. This may be explained by the fact that communities living outside or on the edge of the forest are less prone to abuse and coercion by forest officers than those living inside the forest (Koussounin, Djaoulè). Although food production is the most widespread form of cultivation among the communities of Koussounin and Djaoulè, they are also most frequently subject to control and coercive measures by forest officers.

Looking at the average size and number of farm plots currently used by individual households, data analysis shows that, regardless of gender and location, over 78% of respondents have only 1–2 plots of land on which they cultivate crops to meet household

needs. Another 15% have between 3–5 plots. About 89% of women have 1–2 plots of land, and only 4% have more than 2 plots of land. In most cases, average plot size ranges between 1 and 3 hectares (38% of respondents), although 25% of respondents have less than 1 hectare to meet their household food needs. Farmers having farm plots between 5 and 10 hectares represent 8% of respondents while only 3% of respondents claim more than ten hectares. Not surprisingly, 46% of female respondents have farm plot areas not larger than 1 hectare, while 35% report farm plots that range between 1 and 3 hectares. It is important to note that just 6% of women have more than 3 hectares, whereas the proportion among men is about 46% (see Fig.10).

To conclude, Kabanou communities depend on the Three Rivers forest to meet their household needs. Although 33% of the respondents occupied new plots of land over the last 10 years, indicating an increasing demand for farmland, it is equally important to note that about 35% of respondents have been living in the area for more than 30 years. In most cases, the extension of agricultural lands occurs by occupying small plots of land, rather than by clearing large areas inside the forest.

In a context where forest-adjacent communities regularly complain of forest land occupancy by a growing number of new farmers from other villages, districts and even municipalities, it is important to understand the modalities and mechanisms to access forest land.

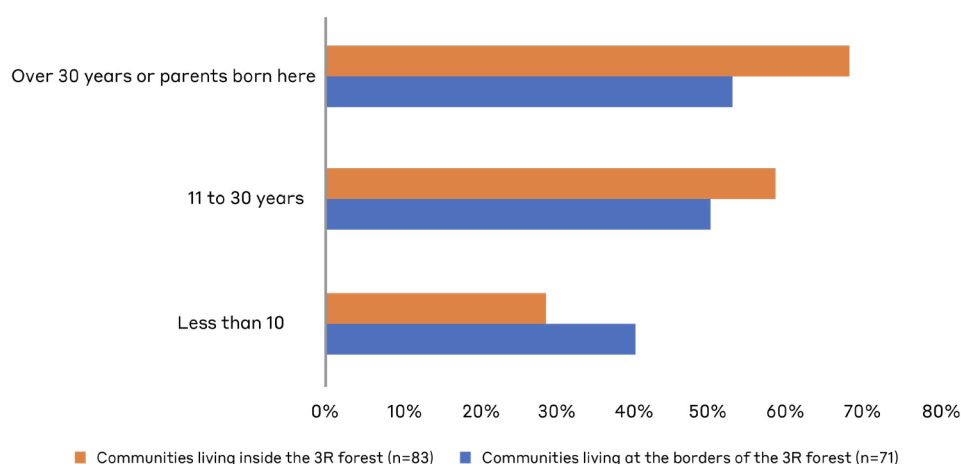


Figure 9: Farmland occupancy history of Kabanou village communities (Source: Household data implemented in April 2021)

⁹ Ten years is the threshold defined under the Benin land code to be able to claim land ownership on agricultural lands. Please note though that we refer to land occupancy on forest land, not land ownership.

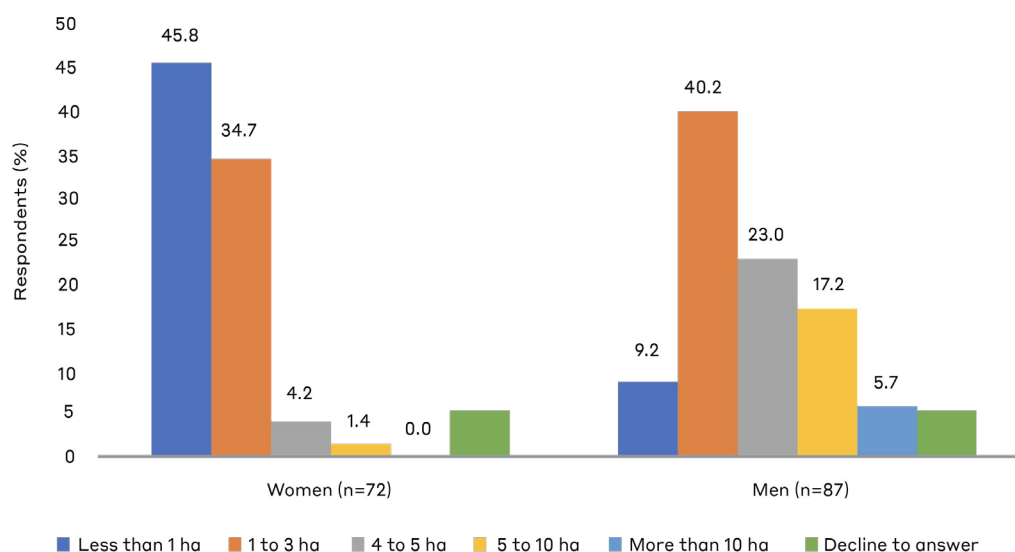


Figure 10: Farm size in hectare of Kabanou communities (Source: Household survey, April 2021)

6.2 Access to land: Overlapping formal and informal access modes and mechanisms

Although access to forest land is formally organized through the provisions of the participatory forest management plan of the Three Rivers gazetted forest, field data show that customary rights also determine communities' access to forest land. For instance, over 50% of the survey respondents indicated succession as the primary mechanism through which they occupied the plots of land they are currently cultivating,

regardless of where they live (i.e., inside or adjacent to the forest). Thirty-nine percent of respondents among the communities living at the borders of the forest cited donation,¹⁰ whereas this mechanism was cited by only 19% of the communities living inside the forest. However, 24% of them mentioned other mechanisms which they declined to specify (see Fig. 11).

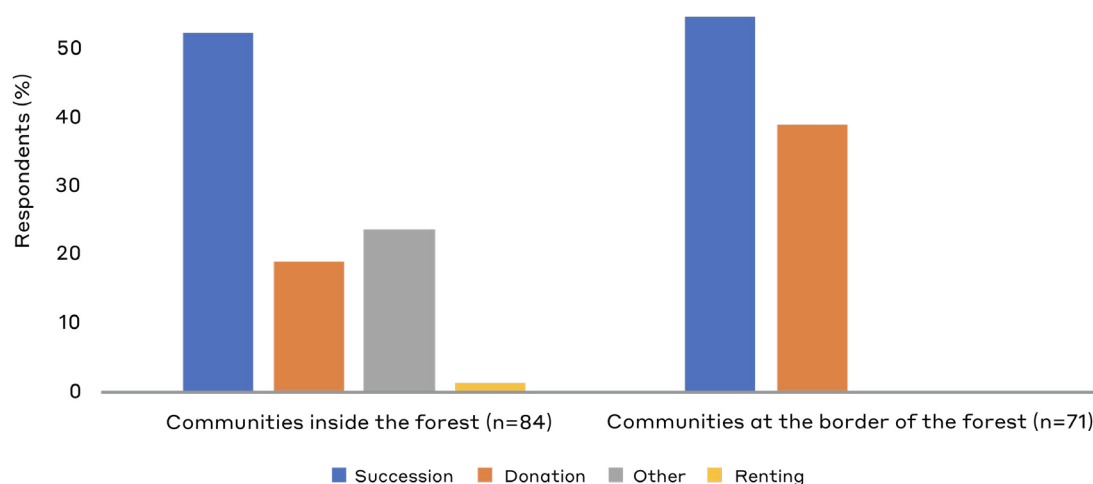


Figure 11: Land access mode in Kabanou (Source: Household survey, April 2021)

¹⁰ Donation is here defined as a customary mechanism through which a person, considered as the head of the household, transfers full or part of the use rights he has on a plot of land to a relative, usually his spouse (s) or an extended family member, without any financial transaction. It is different from buying or renting where the transfer of ownership is made through payment (in kind or financial)

For female farmers, access to land is arranged through donation in 57.5% of cases, suggesting a high level of dependency on family land. Although 18% of female respondents also mentioned succession as a mechanism to access land, this tenure arrangement was mainly stated by male respondents (85%). Other mechanisms such as renting or buying and selling that exist in private agricultural lands do not exist in Kabanou, indicating farmers' awareness of the status of the forest land they are using (occupancy rather than ownership rights).

Succession and donation being traditional arrangements, respondents were asked whether they have official documents that grant them land occupancy of forest land and use of forest resources. Although the participatory forest management plan provides for land use contracts between the forest administration and the adjacent communities, data show that forest users have no formal or official document (contract or use agreement) that entitles them to occupy or use the forest land or resources. Among the few respondents who stated that they have government-issued titles, further inquiries revealed that they were equating the receipts for forest contribution fees they pay to access forest land and resources to government issued titles (see Fig. 12).

Indeed, over 93% of respondents of the household survey reported that access to cultivation land and grazing resources is subject to the payment of yearly fees referred to as communities' contribution to the forest management (see Table 1). However, some services, including fuelwood, NTFP collection and beekeeping, are free of payment.

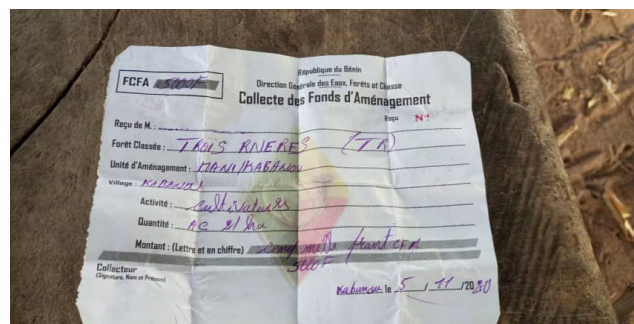


Figure 12: A receipt for forest management contribution fees paid by a farmer in Kabanou village (Household survey, April 2021). For data protection reasons, the name, signature, and receipt number have been hidden.

To ensure fair access to forest land by forest-adjacent communities, the PFMP set a maximum farm plot size of 2.5 hectares per household. Moreover, access to land is permitted only for forest-adjacent communities referred to as local communities.

In conclusion, the participatory forest management plan provides a solid basis for community participation in the management of the Three Rivers gazetted forest. It comprises a comprehensive set of rules and mechanisms, agreed by all stakeholder groups including the forest administration, local communities, and the municipalities, to access and use forest lands and resources. A critical observation is that these rules and mechanisms are rarely enforced, which fuels numerous conflicts between forest officers and the adjacent communities.

Categories	Payment scheme	
Access to cultivation land	Cultivation on own fallows or previously cleared fields	3.81€/ha/year
	Farm extension on new forest land	7.62€/ha/year
Access to grazing resources	Local communities	0.30€/year per head of cattle No payment for small ruminants
	Non-local but Beninese herders	0.30€/year per head of cattle 0.15€/year per head of small ruminants
	Cross-border herders (transhumants)	0.46€/year per head of cattle 0.15€/year per head of small ruminants

Table 1: Payment mechanisms to access forest land and resources (cultivation and grazing) as provided in the Three Rivers gazetted forest participatory management plan

6.3 Conflicts and trade-off between forest conservation and the achievement of LDN targets

Next to the abovementioned rules and mechanisms defined by the participatory forest management plan to access forest land and resources, field data uncovers various informal tenure arrangements involving the forest officers and the communities (see Table 2).

Without underestimating the role of communities' failure to comply with formal rules and mechanisms to access forest land and resources in the numerous conflicts between the communities and forest officers, it is important to recognize that informal tenure arrangements exacerbate existing discords and disputes.

Table 2 shows that the payments made by forest-adjacent communities to access forest land and resources are well beyond the provisions of the participatory forest management plan.

The negative implications of these informal mechanisms are multiple. If someone has the financial means to pay for the clearing of new farmland, he can access large plots of land, regardless of the maximum farm plot size per household stipulated in the forest management plan (2.5 ha). Moreover, more and more farm plots are now installed in other forest zones, where cultivation is forbidden by the provisions of the forest management plan (see Fig. 13).

Categories	Payment according to the PFMP	Informal mechanisms
Cultivation on own fallows or old farm fields	3.81€/ha/year	30.49€/ha/year
Clearing of new farmlands for cultivation	7.62€/ha/year	61€/ha/year
Countersigning of paid receipt	Does not exist	15.25€/ha/year
Access to grazing resources by local communities	0.30€/year per head of cattle No payments for small ruminants	1.52€/year per head of cattle and additional 1.52€ for signature
Countersigning of paid receipt	Does not exist	1.52€/year per head of cattle
Access to grazing resources by other Beninese herders	0.30€/year per head of cattle 0.15€/year per head of small ruminants	No information
Access to grazing resources by transhumant herders	0.46€/year per head of cattle 0.15€/year per head of small ruminants	No information

Table 2: Payment schemes (formal versus informal mechanisms) observed in the village of Kabanou (Field data, April 2021)

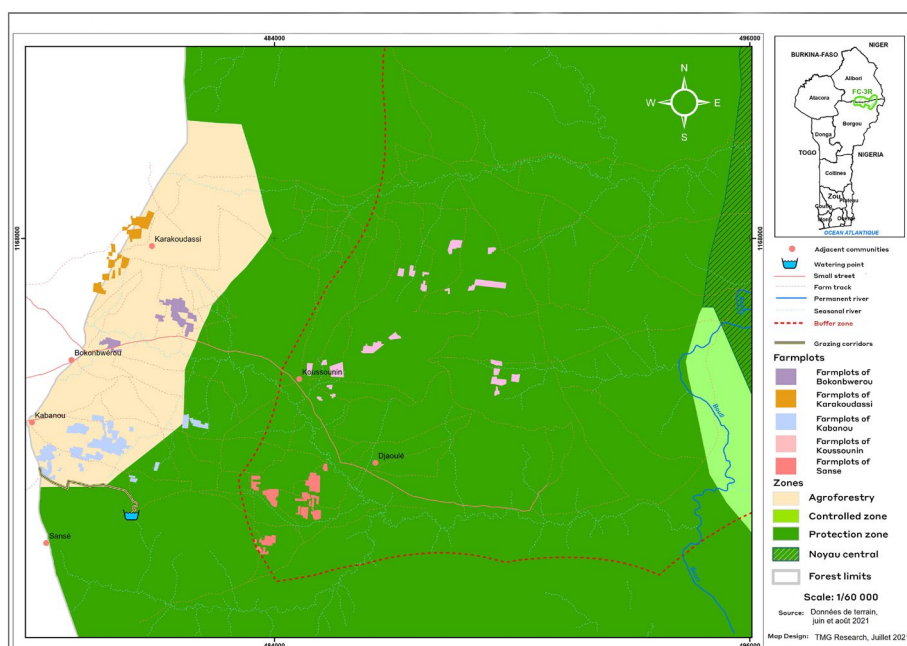


Figure 13: Spatial distribution of Kabanou village communities' farm plots in the Three Rivers gazetted forest (TMG Research, 2021)

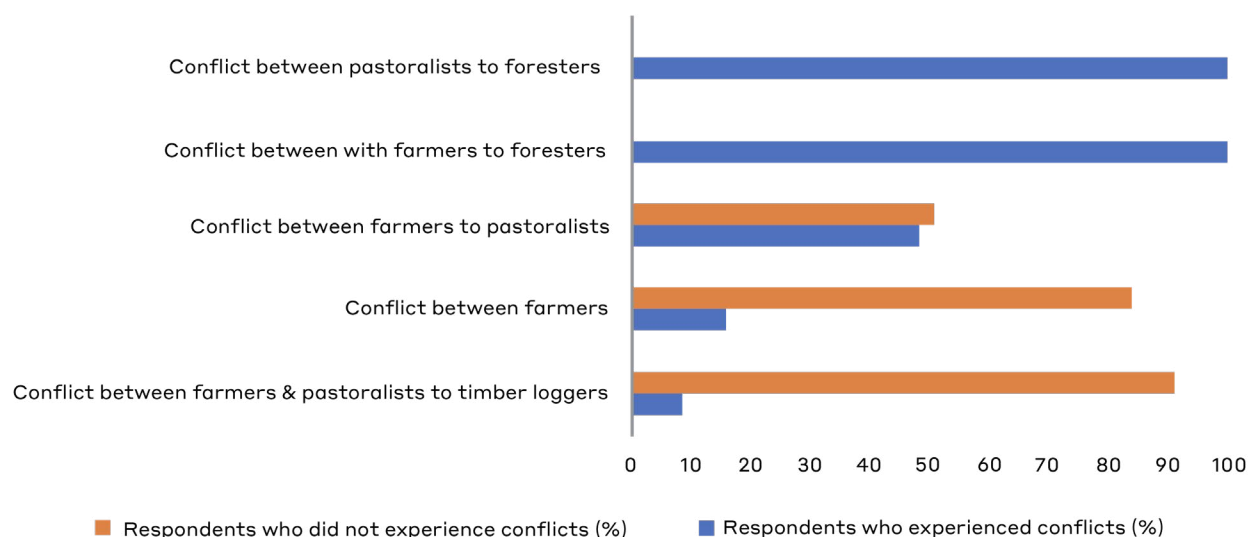


Figure 14: Types of conflicts over forest land and resources reported by Kabanou village communities (Household survey data, February 2021)

The abovementioned frustrations and smallholder farmers' financial inability to comply with the informal rules result in conflicts, especially at the start of the growing season when forest officers increase controls and coercive measures on farmers. Unfortunately, the start of growing seasons, when forest officers are forcing farmers to pay forest fees correspond also to the period when most of the farmers lack financial resources or need the available resources for field preparation or to buy agricultural inputs. These issues highlight the dilemmas facing forest-dependent communities, and the underlying factors of the frequent conflicts between farmers and forest officers (see Fig. 14). These conflicts, exacerbated by an

increasing lack of trust between the key local forest stakeholders, compromise the ability of the state to reconcile forest conservation goals and communities' livelihood needs, jeopardizing the achievement of Benin's LDN targets (Fig. 15).

In conclusion, the participatory management plan of the Three Rivers gazetted forest offers opportunities to prevent stakeholder conflicts, legitimise community access to and use of forest land and resources, and also ensure the protection of the forest from unsustainable exploitation. However, informal mechanisms introduced unilaterally jeopardize the foundations of community participation in forest management and conservation.



Figure 15: Example of a house marked with two red crosses by the forester to threaten household members if they do not comply with stated rules in Kabanou. © Kader Baba, 2019

7. Implications of LDN measures on communities' rights to land and opportunities to reconcile both agendas

Forest protection and conservation is central to Benin's commitments to international environmental agreements, including the achievement of its ambitious LDN targets. However, proposed policy measures in the Benin LDN target setting programme, coupled with current strategies and instruments used to enforce the provisions of the participatory management plan of the Three Rivers gazetted forest are concerning. The use of various coercive mechanisms against the forest-adjacent communities increases may violate their rights to forest land and resources, and exacerbate poverty and food insecurity among the most vulnerable. These concerns have been voiced by the communities. Survey data collected in Kabanou village show that almost 70% of respondents consider it very likely (46%) to somewhat likely (24%) that they will lose the land they currently occupy against their will in the coming five years. Only 5% consider it unlikely to very unlikely that they will lose their land. Questioned on the reasons for their concerns, 82% of the respondents fear eviction from the land they currently use by forest officers.

The call for a zero-tolerance policy for agricultural extension in forests and protected areas expressed in the Benin LDN country commitments report,¹¹ including the eviction of crop farmers and other users from unauthorised forest zones and protected areas, not only feeds the above fears and sense of insecurity, but also increases the risk of food insecurity among smallholder farmers who will be affected by the enforcement of such measures to achieve LDN. Moreover, this is not conducive to creating an enabling environment for stakeholder participation and engagement in the sustainable co-management of the forest, and violates legitimate access rights to forest land and resources provided by the participatory forest management plan.

Yet, there exist opportunities to reconcile forest conservation goals with communities' legitimate rights to forest land and resources. The participatory forest management plan set the foundations for communities' participation in the management of the forest and stresses the role of the forest department in strengthening communities' capacities and creating an enabling environment. Besides, the current payment made by the communities to access forest land and resources, as part of their financial contribution to the management of the forest, sets the foundations for trust-based collaboration with agencies of the state. A formalization of those arrangements in a written contract that guarantees long-term use rights and obligations of forest-adjacent communities is, thus, a crucial necessity. Such a contract on forest land occupation and use would not be new per se, as it is also provided in the participatory forest management plan. Securing communities' access to forest land and resources through such contracts, provided the terms have been agreed by all parties, can also stimulate communities' investment in sustainable land management practices. For instance, up to 70% of the survey respondents in Kabanou stated a clear willingness to apply SLM measures on their farm plots if they were assured that they would not be expelled from the forest unexpectedly. Tenure insecurity on land currently occupied, together with the restrictions of forest officers, are the main reasons why communities are reluctant to apply agroforestry, especially the planting of nitrogen-fixing trees or shrubs such as pigeon pea. For this reason, formalizing and securing communities' access to forest land and resources through official documents such as a land use contract could address not only the current concerns and fears of forest officers and communities, but also provide a basis for reconciling forest conservation goals with the rights of forest-dependent communities.

¹¹ https://knowledge.unccd.int/sites/default/files/ldn_targets/Benin%20LDN%20Country%20Commitments.pdf

8. Conclusion and recommendations

In recent years, LDN has been promoted as an effective mechanism to reverse land degradation. In Benin, as in several other countries that depend on forests to meet their commitments to international environmental agreements and agendas, policy actions and forest management measures proposed to meet LDN targets often involve reinforcing conservation priorities and regard forest-adjacent communities as the sole cause of forest degradation. The findings of the pilot research to support the implementation of the UNCCD [Decision 26/COP14](#) on land tenure highlights the critical need to integrate communities' legitimate rights to forest land and resources into LDN targets. Moreover, the findings of this study highlight the urgency of supporting women's access to forest land and resources to minimize adverse effects of LDN implementation on the achievement of other SDG goals.

To reach Benin's LDN targets while respecting community rights to forest land and resources, it is important to consider and acknowledge that:

► **Current efforts to achieve LDN in Benin risk violating forest-dependent communities' legitimate rights to forest land and resources.**

Policy measures formulated in Benin's LDN target-setting document explicitly call for a strong enforcement of forest laws and regulations, including the eviction of farmers and other users from unauthorised forest zones and protected areas. Even if such measures advance immediate forest conservation goals, they are likely to be effective only in the short term, while exacerbating existing conflicts over resources, increasing food insecurity and leading to more encroachment into the forests. Enforcing such policy measures violates the principles brought forward in the VGGTs.

► **Commitment to democratic accountability is key to successfully reconciling forest conservation agendas with community rights to forest land and resources.**

The participatory forest management plan of the Three Rivers gazetted forest provides a strong basis for community participation in forest management and land restoration activities. It also paves the way to legitimise communities' access to and use of forest resources while ensuring protection of the forest from unsustainable exploitation. Informal rules and mechanisms, often introduced unilaterally by forest department officers, jeopardize community participation in forest management and conservation. Commitment to democratic rules set in the PFMP is a crucial necessity for reconciling forest conservation goals with communities' needs and rights.

► **Forest-dependent communities need formalized and secured mechanisms that guarantee long-term access to and use of forest land and resources to invest in sustainable land management practices.**

The PFMP provides a framework for formalizing communities' access to and use of forest land and resources. It proposes a mechanism for securing farmlands occupied by the communities through contracts between the forest department and users. Although such contracting mechanisms may help to overcome mistrust and conflicts between forest officers and local communities, their practical implementation is hindered by various concerns of the forest department officials (e.g., fear that farmers may consider the contract to be proof of property rights on land, plant trees to claim ownership, etc.).

To conclude, it is vital to address the increasing degradation of forest resources. However, expelling forest dependent communities from, or drastically limiting their access to forest resources, has far-reaching consequences for livelihoods and food security. The conflicts, exacerbated by an increasing lack of trust between the main forest management stakeholder groups, will not only compromise the foundations to effectively reconcile forest conservation goals and communities' livelihood needs, but also jeopardize the achievement of Benin's LDN targets.

References

- Dallimer, M., & Stringer, L. C. (2018). Informing investments in land degradation neutrality efforts: A triage approach to decision making. *Environmental Science and Policy*, 89(February), 198–205. <https://doi.org/10.1016/j.envsci.2018.08.004>
- DFRN. (2010). Plan d'Aménagement Participatif de la Forêt Classée des Trois Rivières (2010-2019). Description du Plan & Manuel des Procédures. (Volume 1).
- FAO and ITPS. (2015). Status of the World's Soil Resources (SWSR) – Main Report. In Food and Agriculture Organization of the United Nations and Intergovernmental Technical Panel on Soils. <http://www.fao.org/3/a-i5199e.pdf>
- Feenstra, J. F., Burton, I., Smith, J. B., & Tol, R. S. J. (1998). Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies. Institute for Environmental Studies IVM Vrije Universiteit Amsterdam, 464. <https://doi.org/10.1111/gcb.12365>
- Global Mechanism of the UNCCD. (2018). Country Profile of Benin. Investing in Land Degradation Neutrality: Making the Case. An Overview of Indicators and Assessments.
- INSAE. (2016). Effectifs de la population des villages et quartiers de ville du Benin (RGPH-4, 2013).
- IPBES. (2018). The assessment report on Land Degradation and Restoration. Summary for Policymakers (A. L., Scholes, R., and Brainich (ed.)). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.
- Kramer, A. K., Klümper, F., Müller, A., & Thornberry, F. (2021). Strengthening Accountability for Responsible Land Governance : Linking Governance of Tenure to Human Rights. *Sustainability*, 13(11113), 18. <https://doi.org/https://doi.org/10.3390/su131911113>
- MCVDD. (2017). Neutralité de la Dégradation des Terres (NDT). Note Politique sur les Cibles et Mesures NDT. Un moyen de mise en oeuvre des conventions de Rio et des ODD au Bénin. <https://www.unccd.int/actions/ldn-target-setting-programme>
- Monti, B., Orou N'gobi, S., Gibigaye, M., Assani Seidou, A., Sabi, A., Boni, Y. O., & Sonsonna Ouorou N'gobi, A. (2020). Bio Monti Sika OROU N'GOBI et al. Dynamique de l'occupation du sol dans la forêt classée des trois rivières au Nord Bénin dans un contexte de variabilité climatique. *Afrique SCIENCE*, 17(3), 1–15. <http://www.afriquescience.net>
- UNCCD. (2021a). Land and Sustainable Development Goals | UNCCD. <https://www.unccd.int/issues/land-and-sustainable-development-goals>
- UNCCD. (2021b). UN reaffirms achieving LDN has the potential to act as SDG accelerator and integrator | UNCCD. <https://www.unccd.int/news-events/un-reaffirms-achieving-ldn-has-potential-act-sdg-accelerator-and-integrator-0>
- World Bank. (2020). Benin Country Forest Note. Report No: AUS0001346. <https://documents1.worldbank.org/curated/en/438941599117826833/pdf/Benin-Country-Forest-Note.pdf>



TMG Research

TMG – Think Tank for Sustainability
TMG Research gGmbH
EUREF-Campus 6–9
10829 Berlin, GERMANY
Phone: +49 30 92 10 74 07 00
Email: info@tmg-thinktank.com
Website: www.tmg-thinktank.com

This publication was made possible with financial support by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.