

Implementation of REDD+ Activities in Central African Countries

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Photo by Nicolas Bayol

Introduction

Several countries in the Congo Basin are aware of the importance of forest potential and have embarked on the REDD+ process. Consequently, they are making institutional arrangements in sectors that are drivers of deforestation (e.g., agriculture, land tenure, land use, energy, forestry, governance) and are developing a national framework to harmonize and facilitate REDD+ implementation. But while the countries of the Congo Basin are all keen to reduce emissions related to deforestation, their levels of commitment differ. Indeed, while some are sidestepping the REDD+ process, others are considered “good students” of the process and are thus involved in all the initiatives (Sufo Kankeu 2019).

At the same time, the development of the carbon market, voluntary compensation at international level, and investor enthusiasm (from Europe in particular) for forest carbon projects lead us to expect that nature-based solutions will gain momentum.

This chapter provides an overview of national policies and the various types of REDD+ activities being put into action in Central African countries. Among other things, it will take stock of existing actions to reduce emissions or increase GHG removals in forests and then focus on a few REDD+ flagship programmes and projects implemented on the ground. It will also present the regulatory incentive and remuneration mechanisms for stakeholders in the field. Lastly, the chapter will discuss prospects for the REDD+ process in Central African countries and make some recommendations.

5.1 What action should be taken at the national level?

The COMIFAC countries have adopted a holistic and integrated approach when implementing the REDD+ process: their strategic options in this area are a mixture of **cross-cutting programmes** and **integrated sector-by-sector programmes** to promote harmonious and sustainable development.

In addition to these two types of programmes, each country considers **land-use planning and land management** as a strategic policy crucial to the success of the REDD+ mechanism. The far-reaching goal of these countries is to set up a real forest governance policy in order to better manage, over time and spatially, the human activities likely to have an impact on forest cover.

These national processes of forest zoning and land-use management make it possible both to clarify the distribution of different uses and to organize and spatialize the forest estate, thereby helping to make operational the National Forest Monitoring System (NFMS), which is essential for monitoring

REDD+ activities. These various clarifications help to distinguish Intact Forest Landscapes¹ from degraded areas or areas likely to experience more anthropogenic pressures due to their status given by land-use management. Activities to conserve carbon stocks could, for example, be carried out in protected areas by strengthening means of protection or by extending the existing network to include the conservation of new forest areas. This type of action may, however, require prior work to obtain accurate mapping and assessment of the exact legal status of the existing network. In contrast, other activities that could be carried out are those in sustainable management, such as promotion of RIL² techniques in production forests under concession (Bodin et al. 2014), and those to increase carbon stocks in areas of undeveloped savannas.

Box 5.1: The importance of land sector reform in the REDD+ process

Reform of the land sector is of paramount importance, as it will make it possible to pool the customary and modern land systems. The permanent dualism between legality and legitimacy in the land sector is a source of many conflicts. Land reform will therefore reduce frequent conflicts, especially in rural areas (Ibanda Kabaka 2020). Under the REDD+ mechanism, land reform will have to determine the forms of access to and methods of use of land, because current land law in each of the Congo Basin countries does not sufficiently empower local communities and indigenous peoples to reduce emissions from deforestation and forest degradation. This situation is due to the fact that, in these countries, registration (Cameroon and Republic of Congo) or the registration certificate (DRC) remain the only legal documents that secure the rights of ownership of any land, even though the State recognizes the rights of enjoyment of those who claim land ownership by customary right (Mpoyi et al. 2013; Kengoum Djiégni et al. 2020).

To create an institutional framework conducive to the implementation of the REDD+ mechanism, the Congolese government initiated a project to reform the land sector in 2012. However, the project lacked financial resources and could be relaunched only in 2014, when the National Land Reform Commission (CONAREF) was established. This process enjoys a budget of USD 7 million as part of the letter of intent signed with the Central African Forest Initiative (CAFI) in 2016. The main expected outcomes of this process are a national land policy document and the drafting of a land law and its decree of application. To date, CONAREF is working on the advanced version of the policy document that integrates the dimension of climate change and rights of local communities and indigenous peoples.

Despite ongoing land reform initiatives in the countries of the Congo Basin, land insecurity persists and is likely to be a barrier to the effective implementation of REDD+ (Client Earth 2020).

The contribution of land tenure to the success of REDD+ is undoubtedly linked to clarification of the distribution of benefits among the various stakeholders, who include the State, local communities and indigenous peoples, and those leading REDD+ projects or initiatives.

1 Intact Forest Landscapes (IFLs) are defined as an “unbroken expanse of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity, and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained.” (Potapov et al., 2008).

2 Reduced-impact Logging

Implementation of the REDD+ process in the Congo Basin also requires some **national sectoral policy reforms**, so that a more enabling framework for the programmes determined in the various countries can be created. These sectoral reforms are crucial to the success of the process, given the cross-cutting nature of REDD+. The land sector is the one most in need of reform, as other sectors are dependent on it.

For example, Table 5.1 shows four previously mentioned possible courses of action at the national level for four COMIFAC countries.

Gabon stands out from other countries in the subregion. As a country with high forest cover but very low historical deforestation (an HFLD country), Gabon was long opposed to REDD+. Today, it is engaged in several innovative approaches:

- Since 2019, CAFI has been prepared to contribute up to USD 150 million for the maintenance of high forest cover and a low deforestation rate in Gabon, by setting the carbon floor price at USD 10/tCO₂ when results are certified and USD 5/tCO₂ otherwise.
- The forest reference emission level (FREL) submitted by Gabon to the UNFCCC in February 2021 indicates that it is the only country in the subregion whose national forests absorb more than they emit. According to this FREL, Gabonese forests are thus a net carbon sink, absorbing more than 100 million tCO₂/year.
- In September 2021, the Government of Gabon issued an ordinance establishing the creation of an emissions trading market between all the major economic players in Gabon. This ordinance obliges them (i) to reduce their emissions according to the allowed quotas, and (ii) if necessary, to offset them by financing primarily Gabonese forest carbon projects.

5.2 What action should be taken on the ground to reduce emissions or increase GHG removals in forests?

For all these actions implemented or planned at the national level to have an impact, they must be rendered into local and concrete actions on the ground. We can distinguish two main types of actions: 1) those linked to the maintenance of stocks already present in natural forests (reduction of emissions linked to deforestation and degradation, conservation concessions, forest management, RIL and RIL-C³ practices, etc.), and 2) those consisting of an increase in forest stocks (forest and agroforestry plantations, prohibitions on cutting and grazing practices in savannas, assisted natural regeneration, etc.).

5.2.1 Reducing emissions from deforestation: changing agricultural practices

In the countries of the Congo Basin, subsistence farming is ranked as the top driver of deforestation (MINEPDED 2017; RDC-MECNT 2012; Ciza et al. 2015). The expansion of subsistence farming in forest areas is mainly due to population growth and lack of alternative livelihoods. In their national

3 Reduced-Impact Logging for Climate

Table 5.1: Objectives and programmes of national REDD+ strategies of several COMIFAC countries

Country	Cameroon	Republic of Congo	Central African Republic	Democratic Republic of Congo
Objectives	<ul style="list-style-type: none"> - Reduce the carbon footprint of its development without slowing down its growth, via its Intended Nationally Determined Contribution (INDC); - Reduce projected emissions from deforestation and forest degradation by 50% by 2025 and achieve net zero deforestation by 2035. 	<p>By 2030, sectors concerned by REDD+ significantly contribute to diversification and economic growth, as well as to the fight against poverty via implementation of practices promoting the sustainable management of forest ecosystems.</p>	<p>Support the CAR in the economic and social development of the Forestry and Other Land Use (FOLU) sector while limiting impacts on forest ecosystems through its National REDD+ Investment Framework.</p>	<ul style="list-style-type: none"> - Organize, plan and quantify the institutional, technical, financial and human needs, which are required to define and implement REDD+ through its National REDD+ Framework Strategy. - Proposal for an Investment Plan, for the 2015-2020 period, for implementation of a set of sectoral and integrated programmes with national scope.
Cross-cutting programmes	<ul style="list-style-type: none"> - Improving land management - Improving land governance by promoting land security, gender and social equity; - Payments for environmental services (PES); - Financing of REDD+ implementation; - Improving governance framework, for better institutional coordination. 	<ul style="list-style-type: none"> - Strengthening governance aspects by incorporating REDD+ principles into policies and regulations; - Strengthening intersectoral coordination through the National Land Use Plan (PNAT) and a National Spatial Management Scheme (SNAT); - Improving land ownership management; - Implementation of sustainable financing mechanisms. 	<ul style="list-style-type: none"> - Integrated and inclusive planning of the national territory and securing land tenure; - Increased access to "green" financing for sustainable investments in the FOLU sector. 	<p>4 enabling pillars that seek to trigger sectoral reforms:</p> <ul style="list-style-type: none"> - Governance; - Population growth; - Land-use management; - Land.
REDD+ sectoral programmes	<ul style="list-style-type: none"> - Agricultural sector: promoting sustainable agricultural systems with low potential for deforestation and forest degradation; - Forest sector: sustainable forest management and bolstering forest and wildlife resources at the national level; - Mining sector: incorporating environmental criteria to reduce impact on forests and designing of compensation systems for inevitable emissions. 	<ul style="list-style-type: none"> - Agricultural sector: developing remunerative, job-creating, sustainable and deforestation-free agriculture; - Forestry sector: adopting practices for the sustainable use and management of forest ecosystems and restoring degraded landscapes; - Mining sector: adopting good practices for environmental and social impact management; - Energy sector: reducing unsustainable woodfuel harvesting. 	<ul style="list-style-type: none"> - Agricultural sector: developing remunerative, job-creating, sustainable and deforestation-free agriculture; - Forestry sector: adopting practices for the sustainable use and management of forest ecosystems and restoring degraded landscapes; - Mining sector: adopting good practices for environmental and social impact management; - Energy sector: reducing unsustainable woodfuel harvesting. 	<ul style="list-style-type: none"> - Agricultural sector: making subsistence farming in rural forest areas sedentary and improving productivity through effective coordination between the MECNT^a and the MAPE^b; - Forest sector: improving sustainable management of permanent production forests; management, development and extension of classified forests; and afforestation and reforestation activities; - Energy sector: reducing demand for firewood, increasing the offer of forest wood products and alternative energy products for households, and limiting the impacts of extractive industries (mining and hydrocarbons).

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Table 5.1: continued

Country	Cameroon	Republic of Congo	Central African Republic	Democratic Republic of Congo
Land-use planning, both a potential source of reduction through the choices made and a framework for field activities	Developing regional and local land-use plans and strengthening effective application of zoning in southern areas by the various stakeholders for better land and forest management in Cameroon, as well as harmonized implementation of the various REDD+ activities.	Developing and implementing a National Land Use Plan (PNAT) and a National Spatial Management Scheme (SNAT) whose aim is to strengthen intersectoral coordination to harmonize and optimize land use and allocation.	Developing and implementing land-use plans for rural areas with the objective of determining new forms for organizing and managing agro-sylvo-pastoral areas.	Finalizing the macrozoning of national territory, to better delimit the forest estate and thus to identify and delimit a long-term objective of maintaining forest cover regardless of the legal status of the land.
Other sectoral policies: forestry, conservation, agriculture, mining, infrastructure, family planning	<ul style="list-style-type: none"> - Agricultural sector: transition from extensive to intensive agriculture. - Forestry sector: 1) revising the Forest Law to improve the definition of “forest” and 2) strengthening cooperation between REDD+ and FLEGT initiatives at national level to promote forest governance reforms. 	Agricultural sector: adoption, publication and popularization of (1) the new agricultural law (and its decree of application) taking into account the objectives of REDD+ and (2) decree of application of Law No. 25-2008 of 22 September 2008 on the agricultural land regime.	Agricultural sector: setting up a framework law on agriculture incorporating a national definition of agroecology and agroforestry, and adoption of agroecological intensification as a pathway to the development of “deforestation-free” agriculture.	<ul style="list-style-type: none"> - Agricultural sector: defining agricultural sustainability criteria which incorporate REDD+ objectives and which will be mainstreamed into the new agricultural policies. - Energy sector: decrease in the share of unsustainably produced woodfuel, all the while meeting national energy demand.

Sources: MINEPDED 2017, UN-REDD 2012, Ministry of Forest Economy of Congo 2018, Karsenty and Vermeulen 2016, Topa, et al. 2009; CN-climate CAR 2019

^a Ministry of the Environment, Nature Conservation and Tourism.

^b Ministry of Agriculture, Fisheries and Livestock.

REDD+ strategies, most Central African countries unanimously recognize the need to promote new agricultural practices that would spare forests. These new practices must be defined by agricultural policies, which in turn must take into account the dimension of climate change. We should note that few Central African countries have updated their agricultural policies.

By definition, subsistence farming is family farming, which is the main source of income and livelihood for the population. Emissions reduction therefore cannot take place without the involvement of rural households. As a result, it is important to understand the outlook of these stakeholders and to ask how they will welcome any proposed REDD+ support.

This issue has all the more significance for people in areas where pressure on the forest environment is strong and where the traditional slash-and-burn agricultural system is undergoing crisis.⁴ In these areas, it is in people's short-term interest to change practices and try to focus on savanna areas. There is thus an appetite for change, but it must be maintained by a system of regular payment according to results, to compensate for the opportunity costs.

In forest-dominated areas, where this pressure is less strong and where the agricultural system is not yet in crisis, people are more reluctant to change practices.

Obviously, to preserve these forest environments it is more advantageous to change system before the crisis occurs, but it should be noted that this approach requires increased resources for awareness-raising and supervision and, above all, monetary incentives for much more limited impacts.

In general, setting up a payment mechanism for environmental services (PES) – after assessment and verification of achievements – is essential to encourage people to continue a REDD approach.

Indeed, experience shows that increasing people's income is not enough to reduce deforestation. On the contrary, people may use this increase in income to expand crop areas at the expense of forests. Sustainable management of natural resources thus requires good governance and the ability to manage one's land.

5.2.2 Conservation of stocks: conservation concessions in the DRC

Conservation concessions based on PES are being tested in several Central African countries, as part of integrated projects in areas of importance to REDD+. They are a lever for promoting forest carbon storage.

A conservation concession involves the payment of allowances to the people and the State so that they forgo income from logging. In addition to the controversial transformation of farmers into conservation rentiers, evaluation of financial compensation raises the question of equity, and the hypothesis of buying out traditional rights through contracts is unrealistic (Karsenty and Nasi 2004). Several investments have been made by bilateral and multilateral institutions in the past 15 years or so. These investments have received support from CAFI.

⁴ The PIREDD Maï-Ndombe project deals with savanna-forest mosaic areas where the local populations have seen their forests shift further from the village.

Methodological approach and implementation framework in the DRC

Forest conservation concessions must be the outcome of land-use planning at various administrative and customary levels. The process consists mainly of supporting local populations in the development of Simple Land Use Plans or Simple Natural Resource Management Plans that result in different ways in which land is used. Forest conservation concessions are one of these ways. In this approach, a total restriction on all human activity is imposed on identified and mapped portions of primary forest. It is backed up by PES paid to landowners and to local or indigenous communities of the territories or forest lands around which they live. These payments are intended to reward efforts and motivate landowners to respect their respective plans.

In the case of Simple Natural Resource Management Plans, the following steps are carried out:

- Awareness-raising, communication and signing of a collaboration agreement on forest conservation with local communities (represented by local development committees under the authority of the land chiefs)
- Demarcation of the boundaries of the forest conservation concession
- Signing of the PES conservation contract, based on these payments; implementation and monitoring

The clauses of the conservation contract are summed up as follows:

- The Local Development Committees (LDCs), which enforce the protection and conservation of the forests described in the Simple Natural Resource Management Plan, shall take all necessary steps to detect and control the outbreak of fires and to stop all illegal activities (charcoal burning, artisanal exploitation, etc.).
- New fields in the conservation areas shall no longer be created.
- Existing fields in these protected areas shall be abandoned for two years from the signing of the contract. If necessary, fields for which allocations have been provided for in the Simple Natural Resource Management Plan will be created.
- Conflicts of interest, by engaging in the same activities as those covered by contracts proposed by any other stakeholder, and thereby jeopardizing the outcome expected by that stakeholder, shall be avoided.
- Management of conflicts or any incident that would jeopardize compliance with the terms of the contract shall be facilitated.
- LDCs shall be compensated for their forest conservation efforts at a rate of USD 1 per hectare per year, if there are no deforestation or illegal activities.

Lessons learned from the conservation concessions approach

The experience of conservation concessions has met with mixed success in the DRC: since 2020, the country has been developing and granting many decommissioned concessions.⁵ Nevertheless, several lessons can already be learned.

This approach has several strengths: 1) the forming of carbon sinks; 2) preparation for the carbon offset market; 3) restoration of endemic fauna and flora; and 4) the granting of PES funds to help

⁵ Six new conservation concessions were awarded to TradeLink Sarl in September 2020: four in Tshuapa Province and two in Tshopo Province.
Source : <https://medd.gouv.cd/contrat-de-concession-forestiere-de-conservation-pour-la-valorisation-des-services-environnementaux-associes-a-un-projet-redd-en-republique-democratique-du-congo/>

carry out community development actions in villages, such as the construction/repair of facilities (e.g., schools, health centres, markets, drinking water wells).

On the other hand, the approach also has weak points: 1) the weakness of legal and regulatory securement provisions in the face of competition with other resources such as oil or other extractive resources, 2) uncertainty about sustainability of the approach without PES support, and 3) the lack of community expertise in quantifying the efforts made and the CO₂ stored. To sum up, while the management of conservation concessions undoubtedly presents many challenges, it can also provide interesting opportunities.

5.2.3 Sustainable forest management: forest development, RIL / RIL-C, etc.

About 30 percent of the forest area in Central Africa is used for timber exploitation, yet the overall impact of logging on GHG emissions remains poorly understood. Several Central African countries

Box 5.2: Pilot study on low-impact forestry in the SODEFOR forest concession in Madjoko, DRC

This study was implemented by WWF-DRC, WWF Germany, GFA and KfW and funded by the International Climate Initiative of the German Federal Ministry of the Environment. Its aim was to conduct a set of RIL activities on an operational scale, to test whether advanced RIL measures (RIL+) and their emission-reduction potential are feasible and cost-effective compared to an already high standard of logging practices.

Several RIL activities (see Table 5.2) were thus implemented in an area of 502 ha and carried out over a period of five months during the rainy season (beginning of November 2016 to end of March 2017). In a control area of 765 ha, logging took place for four months (beginning of July 2016 to end of October 2016), without any specific RIL measures.

In the end, this pilot study did not identify any reduction in emissions in the RIL area compared to the control area (see Figure 5.1). This result appears to be due to logging being carried out during the rainy season. Indeed, rainy season conditions required the construction of an additional secondary road in the RIL area: without this, emissions would have been about 25 percent lower there (as had been planned) than in the control area.

Table 5.2: List of forestry activities

Category	RIL activities
Roads	<ul style="list-style-type: none"> • Reduction of road network density • Replacement of secondary roads with skid trails • Reduction in road strip width • Reduction in solar strip width
Skidding	Reduction in skid trail density using GIS planning
Log landings	Reduction in log landing surface area

Continued on next page

Box 5.2: continued

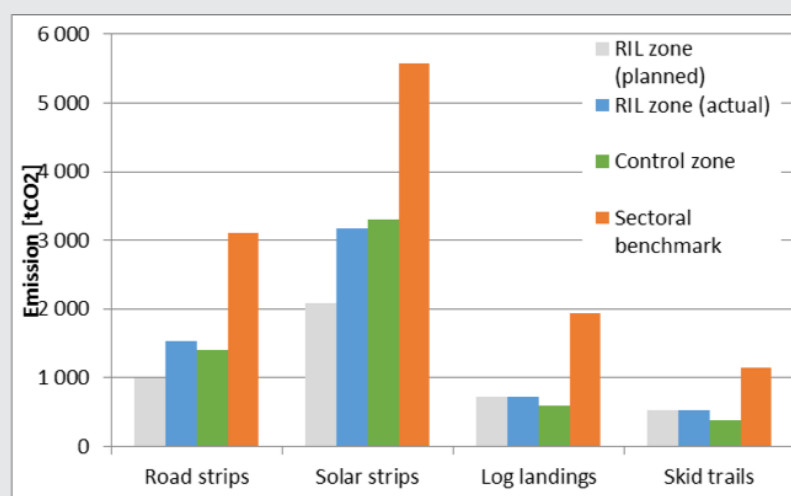


Figure 5.1: Emissions in the RIL area and the control area by category

In this pilot study, emissions due to road building represent between 79 percent (in the RIL area) and 81 percent (in the control area) of total emissions. Reduction in road density, as initially expected, is thus essential to reduce logging-related emissions. The fact that one metre of road (road strip and solar strip) leads to about 50 to 70 times more emissions than one metre of skid trail confirms this approach. Replacing secondary roads with skid trails is thus entirely justifiable from the angle of reducing emissions, even if we consider that several metres of skid trail are necessary to replace one metre of secondary road.

However, while it is theoretically possible to reduce the impact of roads by designing them to be shorter and narrower and by replacing secondary roads with skid trails, there are operational constraints. Longer skid trails are an option for dry-season logging, but not necessarily for year-round operations. Furthermore, there is a limit to the extent to which road width can be reduced. In other words, the forestry companies that have taken measures relatively early will benefit only a little from RIL. RIL+ can thus contribute to the reduction of CO₂ emissions.

have recently introduced compliance with RIL rules in their laws and regulations.⁶ Nonetheless, RIL practices have been developed and implemented by some forestry companies in the region since the early 2000s. Various studies have thus been carried out to assess the impact of these practices on the damage suffered by the residual stand.

These techniques lead to a reduction in waste left in the forest and to a reduction in operating costs thanks to better planning of machinery use and better sizing of infrastructures. While studies have been carried out to clarify the costs of implementing RIL measures, very few have focused on Central Africa (Nitcheu Tchiade et al. 2016). But we do know that companies that have developed RIL techniques – sometimes outside of legal or forest-certification constraints – continue to implement them, suggesting that the financial impact of such techniques is either null or positive.

⁶ See in particular Order No. 6515/MEF setting the standards for reduced-impact logging in the Republic of Congo.

The impact of logging on carbon stocks has become an issue more recently. RIL-C measures are one ecosystem management strategy for reducing emissions and/or increasing carbon storage. The RIL-C measures include practices similar to those of RIL, but they also incorporate techniques to quantify the carbon savings resulting from the implementation of these specific measures.

Large differences in carbon emissions per unit volume of timber can be observed by location, ranging from 4.8 mg cm⁻³ in one concession in Gabon to 0.63 mg cm⁻³ in another in the Republic of Congo. In addition to their impact on maintaining carbon stock, RIL techniques also reduce the effects on flora and fauna.

Implementing RIL and RIL-C measures is one of the quickest solutions for reducing the impact of logging on forest carbon stock depletion. Recognition of the role of logging companies in the fight against global warming has promoted the dissemination and popularization of these measures over the last two decades. But even though most RIL and RIL-C measures are an integral part of good management measures to improve both logging performance and savings in operating costs, their increasing complexity requires support from the scientific and NGO sectors.

5.2.4 Increasing stocks: forest and agroforestry plantations, savanna protection, assisted natural regeneration, etc.

The expansion of agriculture, generally slash-and-burn, is the primary driver of deforestation in Central Africa. Population growth results in hundreds of thousands of new farm households moving into forest areas each year. This increases the need for new agricultural land and in turn puts pressure on forests and reduces forest stocks.

Agroforestry in savanna areas, sustainable agriculture in degraded forests in combination with perennial crops, and prohibitions on cutting and grazing practices in anthropogenic savannas have been shown to relieve pressure on gallery forests and urban peripheries. All these activities are financed by PES to local communities. The aim is both to encourage farmers to move agricultural activities from the forest to the savannas using sustainable and innovative agricultural techniques and to ensure the reconstitution of forest fallow land by introducing perennial crops.

In the case of agroforestry in savannas and sustainable agriculture in degraded forests in association with perennial crops, the technical itinerary includes a two-phase rotation between agriculture (the planting of food crops), and forest (the planting of tree species, such as acacia, *Dacryodes edulis*, citrus, etc.) Perennial forest crops, such as coffee, cocoa, banana and oil palm are being developed through sustainable forest agriculture without changing forest use.

When prohibitions on cutting and grazing practices are imposed on anthropogenic savannas, the methodological approach is the same as that determined for conservation concessions. The objective here is to restore the fertility of the land on abandoned fallows or to encourage forest colonization in savannas that are frequently subject to fires. The approach includes:

- Awareness-raising and communication (signing of a collaboration agreement on prohibitions on cutting and grazing practices with local communities represented by LDCs under the authority of the land chiefs)
- Demarcation of the boundaries of the anthropogenic savanna
- Setting up bushfire control systems

- Setting up assisted natural regeneration techniques
- Signing of a PES contract for prohibitions on cutting and grazing practices in anthropogenic savannas.

We can draw several lessons from the agroforestry approach in the DRC. First, it contributes to better ownership of the technical itinerary by farmers, and it also provides better social, economic and environmental benefits at the same time. Moreover, it facilitates access to land ownership in agroforestry areas. Challenges for the *Acacia* agroforestry model, however, can be observed: between 8 and 10 years of technical support for the agroforestry process are required to reach an autonomous and functional system, and the management process must be established beforehand. In addition to these advantages, PES paid in cash to farmers provide a significant additional incentive for convincing producers to engage in a new activity.

5.2.5 Accounting for emission reductions: scientific methods and knowledge

In order to carry out the variety of payments related to GHG emission-reduction efforts, stakeholders need real data on carbon stocks in the various types of land use. Many methodologies have been proposed by researchers based on destructive experiments. The research by Djomo et al. (2010) and Alipade and Dimandja (2011) on volume tables provides a scientific basis, but other allometric equations available on the GlobAllomeTree platform⁷ highlight other methods and knowledge on carbon accounting. Three major studies have been carried out to assess the equations.

The study by Fayolle et al. (2018) recommends use of the following regional model for future estimates and/or monitoring of REDD+ in the Congo Basin forests: $AGB = 0.125 \times WSG \times 1.079 \times D \times 2.210 \times H \times 0.506$ (AGB being the aboveground biomass in kg, WSG the specific density in g/cm³, D the DBH in cm and H the total height in m).

In cases of inventory data where height has not been measured, the following equation is recommended in the Congo Basin forests:

$$AGB = \exp [0.046 + 1.156 \times \ln(WSG) + 1.123 \times \ln(D) + 0.436 \times (\ln(D))^2 - 0.045 \times (\ln(D))^3].$$

Martin et al. (2018) argue that existing estimates of the carbon fraction are wrong by 4.8 percent on average and up to 8.9 percent in tropical forests. The carbon fraction varies from species to species and is negatively correlated with the specific density. Furthermore, Umunay et al. (2019) estimate that, in the case of selective logging in the Congo Basin, emissions from logging average 2.1 tC/m³ (amount of dead organic matter generated per m³ of logs removed from the forest) or 18.4 tC/ha (amount of dead organic matter generated over 1 ha of logging block). These emissions can be reduced by an average of 51 percent through implementation of RIL-C measures.

⁷ <http://www.globallometree.org/>

5.3 Presentation and feedback from REDD+ projects and programmes in the field

Despite the fact that many actions have been set up and developed at the national level, and that there are many possible actions on the ground, implementation of REDD+ projects and programmes in the countries of the Congo Basin is not always easy, especially because of sometimes difficult local situations. In fact, many of the projects that have materialized have turned out to be open-air laboratories, with their results shedding light on the actions for recommendation in the future to maximize the chances of success.

What lessons can be learned from the various REDD+ projects and programmes implemented in recent years? What are the strategies envisaged – for ongoing projects and programmes – and to be considered for the future?

5.3.1 List and presentation of AFOLU projects registered in COMIFAC countries with the UNFCCC or carbon standards

Several AFOLU projects have been registered since 2008 in the COMIFAC countries (or, for the most recent ones, are still in the process of being registered) with the UNFCCC Clean Development Mechanism (CDM) or with carbon standards such as the VCS (Verified Carbon Standard), Gold Standard, or Plan Vivo. This registration provides them not only international recognition, but also value by earning certified emission-reduction credits that can be sold, each equivalent to one metric ton of CO₂. Table 5.2 presents these different projects.

In addition to these AFOLU projects, there are many projects working on the production and distribution of energy-efficient improved cookstoves (ICS) to households, so that they can reduce their consumption of firewood and thus the need for wood. Ultimately, this reduces deforestation and forest degradation. These projects are for the most part registered (or in the process of being registered) with the Gold Standard. They are especially located in Rwanda and Cameroon, but also in the DRC, Burundi and Congo. Slightly less than 2,500,000 carbon credits have been issued as part of these projects (see Table 5.3).

5.3.2 Presentation of the Emission Reduction Programme Documents (ERPDs) of the Congo and DRC

The Sangha Likouala Emission Reduction Programme (ERP) in the Republic of Congo

The Republic of Congo is home to approximately 23.5 million hectares of Congo Basin forest (CNIAP 2015). The country is committed to implementing its low-carbon development policy through the Emissions Reduction Programme (ERP) in the country's two most forested administrative districts (*départements*): Sangha and Likouala.

These two *départements* (see Figure 5.2) cover an area of 12.3 million hectares and include abundant rainforests, peatlands, protected areas rich in biodiversity, and the country's highest point (Mount Nabemba, about 1,020 m).

Table 5.3: AFOLU projects implemented in Central Africa and registered with carbon standards or the UNFCCC. Sources: Plan Vivo, VCS, GS and CDM

	Country	Project name	Project leader(s)	Date	Surface area	Main activities of the project	Estimated/ delivered emission reductions	Project status
Verified Carbon Standard (VCS)	DRC	Isangi REDD+	Jadara and SAFBOIS	2009	187,571 ha	(i) Termination of planned legal logging and reduction of unplanned illegal logging. (ii) Agricultural improvement activities.	1,391,622 VCUs delivered	Registered
	DRC	The Mai-Ndombe REDD+ Project	Wildlife Works and ERA Ecosystems	2011	248,956 ha	(i) Termination of planned legal logging and reduction of unplanned illegal logging. (ii) Agricultural improvement activities.	13,322,277 VCUs delivered.	Registered
	Congo	North Pïkounda REDD+	CIB ^a	2012	92,530 ha	Conservation of a forest area subject to selective mechanized logging.	56,209 VCUs delivered.	Registered
Plan Vivo	Congo	Agroforestry plantation Batéké Plateaus	SPF2B ^b	2018	7,454 ha	Agroforestry plantations, carbon sinks and sustainable charcoal production to supply the capital (Brazzaville).	1,158,190 tCO ₂ (estimated) over 33 years.	Registration in progress
	Congo	Batéké project	Total Energies Nature Based Solutions	2021	40,000 ha	Plantations, carbon sinks.	10,000,000 tCO ₂ (estimated) over 20 years.	Under development
GS ^c	Cameroon and CAR	Carbon Fund to Reduce Deforestation and Improve Living Conditions of population in the Sangha tri-national forest complex	Fondation pour le Tri-National de la Sangha (FTNS)	2017	14,891 ha in Cameroon and 4,000 ha in CAR	(i) Sustainable and profitable agricultural practices (agroforestry) to reduce expansion of agricultural land (ii) Community involvement in efforts to protect forest resources from illegal logging.	No information currently.	Certification in progress
CDM ^d	DRC	EcoMakala Virunga Reforestation project	CO2logic et WWF RDC	2009	4,200 ha	Community forest plantations and sustainable charcoal production.	224,018 VERs delivered.	Certified
	DRC	Ibi Batéké degraded savannah afforestation project for fuelwood production	Novacel Sprl	2008	4,226.53 ha	Fast-growing forest plantations on savannas and sustainable charcoal production to supply the capital (Kinshasa).	1,178,670 tCO ₂ (estimated) over 30 years.	Registered

^a Compagnie Industrielle du Bois

^b Société Plantations Forestières Batéké Brazzaville

^c Gold Standard

^d Clean Development Mechanism of the UNFCCC.

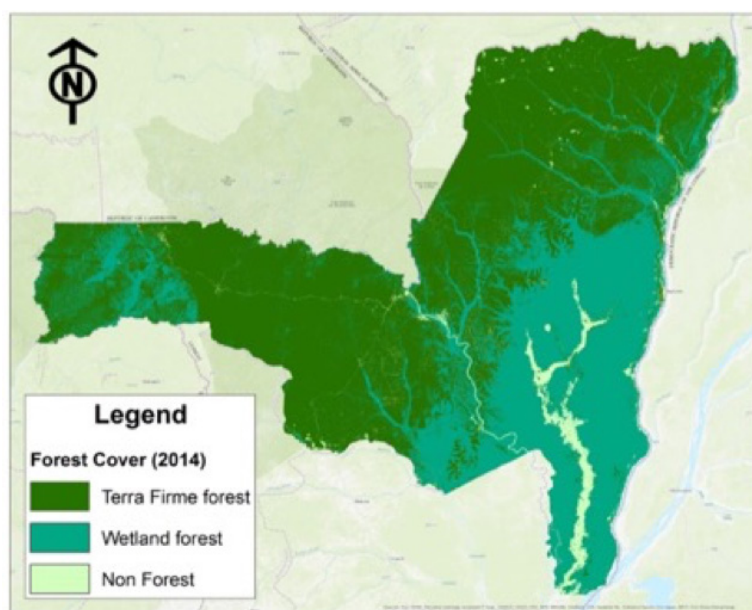


Figure 5.2: Map of the forest cover of the Sangha Likouala ERP area

The programme was finally approved in 2018 by the members of the Forest Carbon Partnership Facility (FCPF). Through it, the Republic of Congo is committed to demonstrating the feasibility of large-scale alternative development approaches to: (i) reduce greenhouse gas emissions, (ii) enhance sustainable ecosystem management, (iii) improve and diversify local livelihoods and preserve biodiversity, and (iv) diversify the national economy and increase government revenues from forests.

The reduction in gross emissions via the implementation of this programme, over a five-year period (2020 to 2024), has been estimated at 13,093,084 tCO₂. Most emission reduction comes from the implementation of RIL practices in forest concessions. Indeed, one of the main objectives of the programme is to demonstrate that it is possible to reduce the impact of logging without reducing timber production.

Taking into account uncertainties and risks of reversal, net emission reductions would be around 9,794,699 tCO₂. It should be noted, however, that these are provisional estimates: work is underway to refine the baseline scenario, which will affect the potential net emissions reductions.

The strategy envisaged under the Sangha Likouala ERP will be to harvest forests sustainably using RIL, promote Roundtable for Sustainable Palm Oil (RSPO) certification, improve governance, and provide payments for environmental services.

The conceptual phase of this programme involved extensive consultation and information-sharing at local, regional (*département* level) and national levels with various stakeholders including the private sector; local communities and indigenous populations; civil society; and local, departmental and national government bodies.

This very ambitious programme seeks to test REDD+ on a large scale, as a model for sustainable development in a country with high forest cover and low deforestation rates. It is one of the major REDD+ programmes in Africa. It will start in 2021, following the signing of the Emission Reductions Purchase Agreement between the Government of the Republic of Congo and the World Bank, which administers the Carbon Fund.

Box 5.3: Participation and respect of the rights of local communities and indigenous peoples in REDD+ in the DRC

Since the DRC's REDD+ readiness phase, indigenous peoples and local communities have been regularly consulted. Several REDD+ pilot projects (financed by the African Development Bank, as part of the Congo Basin Forest Fund, and by other donors) were carried out prior to the investment phase. These made it possible, between 2012 and 2013, to collect the opinions of local and indigenous communities to inform the REDD+ process and finalize the drafting of the DRC's National Strategy.

Indigenous peoples and local communities are fully involved in the ongoing initiatives and participate in the implementation of the various existing programmes. For example, WWC is developing a REDD+ project with the local and indigenous communities of Maï-Ndombe, in Inongo territory. In addition, the Maï-Ndombe Emissions Reduction Programme seeks to provide opportunities for local communities and indigenous peoples within the programme area to develop nested REDD+ subprojects, and for those outside the area to develop PES activities.

However, many challenges remain with regard to respect for the customary land rights of indigenous peoples and women in particular. Clarification is needed on the use rights and customary possession rights of land and forests in the Maï-Ndombe region. Land chiefs and their clans are customary owners of land and forests under the provisions of the DRC's Forestry Code and Land Law. They have the right to alienate land and forests that they own by custom.^a Women enjoy full customary use rights to land and forests belonging to their clan, but they do not have the right to alienate or lease them. Migrants who have lived in a community for a long time have rather restrictive use rights, limited to the collection of dead wood or straw, and extending to the possibility of temporarily leasing land for survival activities. They are not part of the lineage of land chiefs, and as such they are not customary owners.

The approval order recognizes that the State is the owner of the forest carbon. However, in the case of nested projects, the State transfers carbon asset rights to private project developers and communities upon registration of the projects, in accordance with the approval order.

Note:

a REPALEF-GTCRR, Report on consultations with indigenous peoples and local communities in the jurisdictional area of the Emissions Reduction Programme of Maï-Ndombe in the Democratic Republic of Congo, on key aspects of the benefit-sharing plan within the framework of its finalization, Kinshasa, April 2020, p.22. <https://bit.ly/2Feh3NE>

Presentation of the Maï-Ndombe Emission Reduction Programme Documents (ERPDs) in the DRC

The DRC has been engaged in a REDD+ process since 2009. In anticipation of the results-based payment – corresponding to the third phase of the REDD+ process – the DRC has been preparing, with support from the World Bank, the design of the Maï-Ndombe jurisdictional Emissions Reduction Programme (ERP) since 2012. This ERP was formally included in the FCPF portfolio in November 2016, and an Emission Reductions Payment Agreement (ERPA) was signed between the World Bank and the DRC on 21 September 2018.

During this process, the DRC was able to secure several financing sources including 1) secured financing of USD 2.2 million (through CAFI or other financing sources) to operate and improve the implementation conditions required for the ERP and 2) financing of USD 5 million through the World Bank for making the ERPA operational.

The far-reaching goal of the Maï-Ndombe ERP is to implement a province-wide green development model offering alternatives to deforestation and providing performance incentives to mitigate climate change, reduce poverty, manage natural resources sustainably and protect biodiversity. The programme is designed to bring together different sources of financing, such as the Forest Investment Program (FIP), the Congo Basin Forest Partnership (CBFP) and CAFI, as well as to leverage private financing to scale up pilot activities and facilitate the shift to a large-scale land-use planning approach.⁸

Among the activities planned in the programme, the following should be mentioned as enabling activities: (i) strengthening the means of action of decentralized government services; (ii) strengthening the means of multilevel action and the design of Sustainable Development Plans; and (iii) promoting family planning.

As for sectoral activities, the following can be mentioned: (i) agroforestry and improved cultivation techniques, (ii) development of perennial crops in non-forest areas (coffee, cocoa, palm oil and rubber), (iii) strengthening of agricultural value chains, (iv) assisted natural regeneration for charcoal production (v) afforestation/reforestation for charcoal and timber production, (vi) reduced-impact logging, (vii) formalization and strengthening of the woodfuel sector, (viii) conservation of local community forests, etc.

To date, the DRC has met all the conditions for implementation of this project, with the exception of the Benefit Sharing Plan (BSP), the finalization of which depends on revision of the baseline. It is important to recall the legal obligation to revise the baseline of the Maï-Ndombe Programme, which was requested by the FCPF donors when the ERPA was signed. Indeed, the DRC had to review the accuracy of net emission reductions (NERs), estimated at 48 million tCO₂/year in the ERPD document. There was thus a need for an internationally recognized independent assessment, and this was conducted by the University of Maryland (UMD) with support from DIAF and OSFAC. The provisional results were presented to the DRC stakeholders on 23 October 2020. The estimates, developed in strict compliance with the FCPF Methodological Framework, indicate that the NERs of the Maï-Ndombe Jurisdictional Programme are 33,025,746 tCO₂/year.⁹

The programme's performance would thus be more than 4 million tCO₂/year¹⁰ over the 2018-2019 monitoring period. The Programme could thus benefit from results-based carbon payments, under the terms of the ERPA, without putting into question the environmental integrity of the system.

5.3.3 Presentation of the DRC's PIREDD programmes

PIREDD Maï-Ndombe is one of the Integrated Programmes funded by CAFI. The project is run, under World Bank supervision, by the Coordination Unit of the Forest Investment Programme (UC-PIF) of the Ministry of Environment and Sustainable Development, under the delegated project management of the FRMi/WWC Consortium.

⁸ DRC, Emission Reductions Program Document, November 2016.

⁹ These figures are provisional pending submission of the final report of the study.

¹⁰ Idem.

The programme budget is USD 30 million over a five-year period (2018-2023), divided into two phases (USD 20 million for the initial 2018-2022 phase and USD 10 million for the second 2022-2023 phase).

This is a multi-sectoral project with the aim of improving people's living conditions through the implementation of activities to reduce GHG emissions from deforestation and forest degradation. Located in Mai-Ndombe Province, 200 km from Kinshasa, it comes in addition to the investments made under the PIREDD Plateaux project in the same province.

PIREDD Mai-Ndombe is putting into motion a set of activities (see Table 5.4) to address the direct and indirect causes of deforestation. The various REDD+ investments made as part of this project are framed by enabling activities, such as governance and family planning, which seek to create favourable conditions for their implementation and sustainability. The investments are also covered by a PES mechanism that encourages people to continue to adhere to the REDD+ approach.

The support provided to reduce household pressure on the forest has been adapted to the environment and to people's requests. For example, in areas where there are savanna zones,¹¹ the project provides for dissemination of practices such as the establishment of acacia-manioc agroforestry systems that allow for migration of agriculture to these zones. In areas where forest is dominant, the systems disseminated seek to establish sedentarized fields by introducing perennial crops.

After three years of implementation, the achievements of PIREDD Mai-Ndombe have grown in scale:

- Governance bodies are operational at the provincial, territorial and sectoral levels, as well as in some 480 village lands.
- Nearly 480 communities have been supported in their land-use development.
- Nearly 175 communities have been assisted in implementing their planning document for the dissemination of sustainable agricultural practices.
- Six indigenous villages receive support via implementation of microprojects to develop new income-generating activities.
- A priority road has been identified in collaboration with the provincial government, and an agreement has been signed with the Roads Authority for the repair or construction of bridges, gutters and dykes.

Lessons have been drawn from the difficulties encountered, thereby providing guidance for the implementation of REDD+ integrated projects.

The first is that the multi-sectoral nature of the project can be restrictive. Second, its range of actions is very broad and covers isolated areas. This sometimes leads to dissipation of efforts, thereby impeding behavioural change, which is a long-term process requiring a regular presence. Third, the project's results framework was scaled based on REDD+ projects in savanna areas. Fourth, rural communities, which live on a day-to-day basis, lack the means for behavioural change if they do not receive frequent monetary compensation.

¹¹ An environment traditionally rarely farmed by local people

Table 5.4: Activities implemented as part of the PIREDD Maï-Ndombe project

Action component	Geographic scale	Expected results
Strengthening of governance and support for land-use planning	Province, local areas, sectors, village land	<ul style="list-style-type: none"> - Natural-resource governance bodies are operational. - Land-use planning documents are produced.
Support for implementation of land-use plans	Village land	<ul style="list-style-type: none"> - More sustainable agricultural practices are disseminated. - Forest protection zones are created and monitored. - Savannas are protected via fire barriers. - Alternative income-generating activities are developed.
Road infrastructure improvement	Province: priority roads	Movement of goods and people on the priority road is improved.
Awareness-raising in family planning	Province, village land	Rural households have greater awareness about family planning.
Support for development of income-generating activities for indigenous populations	Targeted lands	The targeted indigenous populations have improved incomes.

Finally, the process of determining, verifying and disbursing these payments is cumbersome to administer. Indeed, a large number of rural households participate in the efforts, and it must be ensured that each receives a payment commensurate with the effort they have made.

Among the various stakeholders, there are multiple and varying opinions of what represents a “deforestation avoidance effort” that should be remunerated. This difference in perception leads to difficulties in project implementation, as well as to a gap between the actual situation and the way in which the project results are made use of.

Can we already talk about reduction in CO₂ emissions at the end of a five-year project when it involves improvement of agricultural practices via the development of perennial crops that will be productive only three to seven years after planting? And simply creating a plantation of perennial crops is not enough to keep a family from using the forest, if that plantation is not yet productive. Plus, there is no guarantee that the plantation will be maintained or farmed in the future after the results-based payments end. The duration of the PIREDD Maï-Ndombe project is too short to support this type of momentum and to ensure that the investments made will be sustainable and will enable real reduction in CO₂ emissions.

The ERP could thus be an interesting prospect for consolidating the results that will have been achieved by the PIREDD Maï-Ndombe project, since these will generate income if they lead to emission reductions. However, this requires a benefit-sharing mechanism that allows for direct benefits to individual farm households that have made an effort. REDD+ projects and the sale of avoided emissions thus represent a real opportunity to finance the development of the Maï-Ndombe region while preserving its forest capital.

5.3.4 Lessons from REDD+ implementation

It has been nearly 14 years since the Bali COP, and assessment of REDD+ project implementation is needed so that we can draw lessons from it. The pilot projects discussed here are veritable “laboratories” of such implementation. Around 15 different pilot projects have been identified in Central Africa. They have helped convince the most reluctant governments regarding the feasibility of REDD+ mechanism implementation, promote the incentives associated with this process (Sunderlin et al. 2014), and highlight the complexity of their implementation.

Mixed success for the pilot projects

Despite the standards’ commitment to clarify the procedures for implementing AFOLU projects, initial findings have revealed malfunctioning on the ground. Some project initiators realized that sustained efforts to reduce forest emissions require enabling conditions that have not yet been systematically set up, and they consequently discontinued their initiatives (Sunderlin et al. 2014; Awono et al. 2014).

Hardly any REDD+ project in Central Africa received their long-awaited payments, which are not immediate (in most cases, five years after submission of the Project Design Document). For this reason, a long-term monitoring budget is needed, without which the project cannot continue. In addition, the reluctance of donors and the price per metric ton of carbon greatly impacted the success of the pilot projects.

Box 5.4: World Bank guidance on REDD+ benefit sharing

We will consider four key themes proposed by the World Bank (2019) on good practices in results-based benefit sharing for land-use programmes, including under the Forest Carbon Partnership Facility (FCPF) and the BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL).

- i. Beneficiaries and benefits:* The identification of beneficiaries and the types of benefits they receive depends heavily on understanding the key stakeholders and the types of incentives most conducive to achieving the overall objectives.
- ii. Stakeholder participation:* Stakeholder participation is necessary in all phases of benefit sharing, especially in the design and management of a benefit-sharing mechanism (BSM), as this leads to a greater sense of ownership and mutual trust.
- iii. Institutional, financial and governance agreements:* The effectiveness, efficiency and equity of REDD+ projects in delivering benefits depend on the ability to design provisions on institutional, legal, financial and governance aspects that meet the needs and capacities of all stakeholders. Governance agreements are moreover fundamental in terms of impartiality and inclusion.
- iv. Monitoring, evaluation and adaptive management:* situations regarding regulations, demography, threats and other aspects can be expected to change. It is therefore crucial to examine the potential that a monitoring and evaluation system has to adapt to such changes, so that effectiveness and efficiency can be improved.

What mechanisms are needed for REDD success at the local level?

We must rethink the system of biodiversity conservation through carbon markets. Encouragement of stakeholders can be considered, for example, by instituting a reward for efforts made. To overcome these difficulties, one approach is to identify the knowledge present on the pilot sites in order to find out the capacities of the stakeholders.

COMIFAC, as a subregional integration body for the environment and forests, must strengthen negotiation capacities and also provide capacity building for local technicians. In addition, the pooling of capacities, which has been undertaken in recent years, should be updated.

The organizations involved in the design of the REDD+ mechanism at the international level need to understand developing country perspectives, and institutions at all levels must work together to develop concrete strategies to improve overall outcomes (Brown et al. 2011). This approach requires synergy among stakeholders and between scientific and indigenous knowledge (Sufo Kankeu 2019; Sufo Kankeu et al. 2020).

5.4 Regulatory, incentive and remuneration mechanisms for stakeholders in the field (local communities and private operators)

5.4.1 Design, development and implementation of benefit-sharing mechanisms

The countries in the subregion that are engaged in the REDD+ process are using the guidelines issued by international REDD+ financing mechanisms to develop and implement benefit-sharing guidelines at both national and project levels. These guidelines are proposals, leads and policy advice for designing, developing and implementing REDD+ benefit-sharing mechanisms (CIFOR 2014).

REDD+ benefit sharing can be defined as the distribution of direct and indirect net gains stemming from REDD+ implementation.

Thus, benefit sharing refers to the sharing of monetary or non-monetary benefits with beneficiaries under the ERP and in accordance with the benefit-sharing plan (GoI 2019).

The notion of a BSM is defined as the system(s) or channel(s) through which monetary or non-monetary profits are distributed. This mechanism must take into account all sensitivities, implying that the beneficiaries and the type of benefits be clearly defined and that agreements be established.

Of all the REDD+ initiatives and projects in the Congo Basin, the Maï-Ndombe Emissions Reduction Programme in the DRC (led by Wildlife Works) is the most illustrative case of existing experiments with a benefit-sharing mechanism framed by a national regulation.

Box 5.5: ERs of voluntary carbon markets and their accounting under the Paris Agreement

The Paris Agreement commits all Parties to the UNFCCC to reduce their emissions, including the “non-Annex 1” countries not subject to quotas under the Kyoto Protocol. In this context, the carbon market projects pose a risk to the Parties, and especially to those that are developing countries, in that they may monopolize all the ERs that can be achieved “easily” and at a reasonable cost, thereby making it very difficult for the countries to achieve the targets they have set themselves.

Approaches are being examined (1) to reassure investors (future as well as current, as the issue also concerns projects already in progress, including former CDM projects under the Kyoto Protocol) and (2) to enable host countries to recover some of the ER benefits produced on their territory. This second approach would enable those host countries to claim these ERs under their NDC) while ensuring that they cannot at any time be double-counted (i.e., claimed simultaneously by two different Parties) and thereby risk weakening the environmental integrity of the Paris Agreement.

This raises the question of who can claim to have carried out an ER. Is it the host country where the ER is made? Or is it the country that provided the financing enabling the ER? The ongoing discussions on the rules of Article 6 of the Paris Agreement, and in particular of 6.4 on the Sustainable Development Mechanism are focusing precisely on this issue.

For voluntary market projects led by the private sector, one approach proposed is to disconnect the commercial benefit of an ER from the claim to it. See the ICROA paper on this subject: https://www.icroa.org/resources/Documents/ICROA_Voluntary_Action_Post_2020_Position_Paper_July_2019.pdf

5.4.2 Example of benefit sharing for the Maï-Ndombe Emission Reduction Programme

The legal basis and procedures for any REDD+ project or programme, including the Maï-Ndombe ERP, are established in Ministerial Order No. 47/CAB/MIN/EDD/MML/05/2018 of 9 May 2018. The Order specifies several categories of potential beneficiaries, including sectoral ministries (forestry, agriculture, environment), administrative actors (FONAREDD) and indigenous peoples.

Indigenous peoples are taken into account in the benefit-sharing process at the local level, both because they are the guarantors of the success of the projects and because of their historical contributions to the conservation process. A set amount of 2 percent of the benefits was discussed with the indigenous peoples’ network (REPALÉF) and unanimously accepted by all stakeholders (see Table 5.5). However, no payments can be set up without institutional and practical provisions for the implementation of benefit sharing within the PIREDD framework. These provisions are currently being worked out.

Table 5.5: Analysis of the benefit-sharing mechanism of the Maï-Ndombe project, and of its strengths and weaknesses in relation to international requirements

<p>Size of area concerned: 12 million hectares</p> <p>The DRC's REDD+ benefit-sharing mechanism in the context of its Emission Reductions Payment Agreement (ERPA) within the FCPF Carbon Fund will be managed by FONAREDD (the REDD+ National Fund). Approximately 85.9 percent will go to performance-based payments for subprojects, and approximately 14.1 percent will be used as an advance payment for the management of the ERP. Payments for project management will be made before payments for performance by the subprojects (PIREDD project funded by FIP, PIREDD project funded by CAFI and conservation project funded by Wildlife Works).</p> <p>Within programme management, the benefits will be shared as follows: about 4.1 percent will go to activities on involvement with indigenous peoples and local communities as an advance payment, about 9.4 percent will go to advance payment of programme administration, and about 0.6 percent in advance payment will be used for risk-mitigation activities.</p> <p>The programme management will take into account the following:</p> <ol style="list-style-type: none"> 1. A Programme Management Unit (PMU), which will strengthen the capacities of the provincial government and assist it in ERP management (coordination of subprojects, implementation of a benefit-sharing plan, safeguards and MRV, etc.). In compliance with the benefit-sharing plan, the ERPA and ER payments will be supervised by the PMU and monitored by the transactions registry. 2. Indigenous peoples and local communities will receive payments over five years, based on programme performance, in recognition of both their historical role and their current efforts in sustainable forest management, and as encouragement for their involvement as potential subproject developers. 3. Risk mitigation: The operations of national-level REDD+ institutions and infrastructure established during the REDD+ readiness phase will also be supported in advance by ERPA payments and other funds to support and ensure the continuity of national-level REDD+ operations. <p>The subprojects^a will be subject to the following:</p> <ol style="list-style-type: none"> 4. Payment ceiling: No private subproject will be allowed to receive more than 17.5 percent of the ERPA's nominal value. The purpose is to redirect payments to community activities outside of the limits of the private subproject, even if their performance is inferior. The remaining ERs not purchased by the FCPF Carbon Fund will go into a pool of in-kind ERs, which can be provided to individual subprojects for performance achieved. 5. Reference levels: subprojects will be rewarded in relation to subreference levels validated by the regulator. The PMU should develop guidance and information on how to develop future baselines. 6. Legacy projects: an existing legacy project has apparently been approved. If the project is integrated and rewarded for performance over the ERPA period (2018-2023), it would reduce its baseline by 33 percent. 		
Theme	Strengths	Weaknesses
Beneficiaries and benefits	<ul style="list-style-type: none"> - There were a total of 50,000 beneficiaries. - Several socioeconomic benefits seemed to result from project activities such as school construction, a mobile medical clinic, an immunization programme, distribution of school supplies and ongoing capacity-building workshops for employees and communities in the project area. - Income from the sale of carbon credits will be channelled directly to the project area. A "Local Development Fund" will be managed by a committee of villagers, who will decide how the income will be spent. 	
Stakeholder participation	The stakeholders involved in the project include most of the local communities and the government (represented by the Ministry of Environment).	<ul style="list-style-type: none"> - No CLIP for REDD+ activities - Low level of community inclusion and ownership - Insufficient involvement by the private sector - Lack of clarity on the available procedures
Institutional, financial and governance agreements	<ul style="list-style-type: none"> - The BSM is managed by the PMU along with support from local stakeholders (communities), the private sector (WWC, SODEFOR, SOGENAC) and international actors (CAFI and FIP). - The main documents governing the operating of FONAREDD, which manages the BSM, are available on their website and easily accessible. 	Local government capacity to oversee the jurisdictional REDD+ programme is still lacking, despite years of so-called "REDD readiness" activities.

Continued on next page

Table 5.5: continued

Theme	Strengths	Weaknesses
Monitoring, evaluation and adaptive management	The mechanism set up by the FONAREDD Secretariat has improved overall (FONAREDD Forum in 2020).	Monitoring and evaluation are fragmented, as they focus on the interests and approaches of the different donors.
Analysis by principle		
Equity and inclusion	All stakeholders are represented, i.e., local communities, civil society representatives and the government (represented by the Ministry of Environment).	
Legality and legitimacy		We were not able to obtain access to the founding documents of FONAREDD, whose activities began in 2016.
Land rights holders		The rights and tenure of the trees are still not clear.
Transparency	Most of FONAREDD's internal documents (related to its activities) can be consulted on its website.	Lack of updating of the FONAREDD website
Economic and social development	Several socioeconomic benefits have resulted from the project activities at the community level.	

Sources: Iwerk and Toroskainen 2017; World Bank 2019; Nature Bank 2019; WWC 2019; Transparency International 2020; Lang 2021; DRC 2018; WWF 2021.

a There continue to be disagreements among stakeholders on these subprojects in particular.

5.5 Conclusions and outlook

Through various activities over the past ten years or so, Central African countries have been preparing for implementation of the REDD+ mechanism on their territory. They are investing in various activities, and some countries, thanks to support from the FCPF Carbon Fund, are gradually entering the third and final phase of the mechanism's implementation: that of results-based payments. This notion of positive incentives has been part of the initial design of REDD+ since its official launch (UNFCCC 2007).¹² It was confirmed in the Warsaw Framework (UNFCCC 2013), which sets out the core elements for REDD+ implementation for results-based payments, and then reinforced by the Paris Agreement (UNFCCC 2015). But today REDD+ implementation must adapt to the new climate governance framework of the Paris Agreement. This voluntary agreement is based on the submission of national climate plans (Nationally Determined Contributions - NDCs). While the NDC content is freely determined by each country, it also commits REDD+ recipient countries¹³ (Aykut 2017). This development has several implications for REDD+ implementation and financing (Angelsen et al. 2018) and provides new perspectives for the mechanism.

Since 2007, several technical and financial support initiatives have been developed to help countries prepare and start implementing REDD+ (in particular the FCPF Readiness Fund, UN-REDD, as well

¹² The mechanism was first introduced in 2005 at the Montreal COP by member countries of the future Coalition for Rainforest Nations and officially launched in 2007 as part of the Bali Action Plan.

¹³ This is in contrast to the Kyoto Protocol, which, reflecting the principle of common but differentiated responsibility, obliged only those countries considered historically responsible for climate change.

as the FIP, the REDD+ window of the Green Climate Fund, and others). Thanks to this support, mainstreaming of climate change mitigation issues has taken on an unprecedented dimension, particularly in the Central African countries that have benefited from these funds (Cameroon, CAR, DRC, Republic of Congo and Gabon), but also – by rebound effect – in the other countries of the region. However, this mainstreaming remains relatively limited to the forest sector, and REDD+ has not achieved the expected results in terms of intersectoral coordination. Today, it is crucial to link REDD+ to more comprehensive green growth and/or low-carbon development policies (Thu Thuy et al. 2018), in order to drive the sectors that cause deforestation and forest degradation (agriculture, mining, land, energy, etc.) and ensure its sustainable and effective implementation. In this respect, CAFI is an important source of financing.

Similarly, countries need to harmonize carbon monitoring tools and instruments on their territory. Theoretically, insofar as REDD+ targets are included in the NDCs, the Measurement, Reporting and Verification (MRV) systems developed under REDD+ should feed directly into a broader carbon accounting system that would meet the requirements of the Enhanced Transparency Framework (ETF) of the Paris Agreement.

In practice, the REDD+ MRV is often available before the global accounting tool into which it should be included. And it is not uncommon to observe semantic and methodological inconsistencies (often due to anachronisms¹⁴) between the information submitted to the UNFCCC (GHG inventories, NDCs, etc.) and the REDD+ MRV instruments (some of which are also submitted to the UNFCCC, such as the FREL). At this time when countries are preparing to submit their second NDC, it is important to correct inconsistencies and harmonize methodologies.

Finally, this dual effort of perspective and harmonization should help align REDD+ commitments (i.e., the NDCs as well as the commitments made regarding the forms of implementation of the mechanism, including with regard to compliance with the Cancun safeguards)¹⁵ and REDD+ projects and programmes. As part of the Paris Agreement and the universality of climate commitments, this alignment (which we can also call moving closer together, linking or interlocking) has become necessary. Countries must be able to ensure that the REDD+ activities implemented on the ground contribute to achieving their NDCs and, in doing so, to what extent they do so. This alignment is not without its problems, both technical (FREL allocations, additionality, etc.) and related to the claim of emission reductions achieved under a REDD+ project or programme. With the entry into force of the Paris Agreement, several voluntary market standards have questioned the role of voluntary market projects in the post-2020 context.¹⁶ They have revised their rules to make the nesting of REDD+ projects in national strategies mandatory and effective¹⁷ or are considering new rules to avoid the risk of double accounting.¹⁸

At their own level, countries can develop tools and instruments complementary to those required by the Warsaw Framework, for example:

- REDD+ certification guidelines to ensure that REDD+ activities implemented in the country comply with the national strategy and commitments made by the country

14 For example, the definition of “forest” used in the CAR’s GHG inventories (which act as baseline data for setting NDCs) is not the one used by the stakeholders consulted in the development of the MRV system – and for good reason, as the consultation took place in 2020, after the finalization of the IGES project (2019).

15 UNFCCC 2011.

16 <https://www.goldstandard.org/our-work/innovations-consultations/operationalising-and-scaling-post-2020-voluntary-carbon-market>

17 <https://verra.org/project/vcs-program/rules-and-requirements/redd-nesting-public-consultation/>

18 <https://verra.org/wp-content/uploads/2020/08/Proposal-for-Scaling-Voluntary-Carbon-Markets-and-Avoiding-Double-Counting.pdf>

- A National REDD+ Registry, or even a Transaction Registry, to ensure the monitoring and carbon accounting of all activities and ERs implemented in the country
- A national FREL allocation tool
- Measures for support and capacity building as well as benefit-sharing mechanisms to guarantee attractiveness, universal accessibility and inclusion

Today, one of the major challenges of REDD+ is to succeed in mobilizing financing to implement the activities. In fact, the main source of financing that had been envisaged for REDD+ (a binding carbon market) never materialized (Angelsen et al. 2018). Instead, a voluntary carbon market has taken over. Its development has been both explosive and substantial. In 2019, forestry projects accounted for 36.7 million metric tons of CO₂e on the voluntary carbon markets, worth around USD 160 million. In financial terms, it is by far the biggest category of voluntary market projects, not only in terms of tCO₂e, but also in average sales price per metric ton, which exceeds all the other project categories (4.3 USD in 2019).¹⁹

Today, this voluntary market remains one of the main ways to capture private financing. But, as mentioned earlier, several questions remain unanswered with regard to the relationship between these voluntary markets and the Paris Agreement. Furthermore, financing does not cover needs (Atmadja, et al. 2018), and new avenues of financing must be explored. Their application is not exclusive and depends mainly on the type of REDD+ activity that is implemented. These avenues for financing and redistribution instruments include the following:

- Establishment of national programmes such as PES or forestry funds, financed through carbon taxation or taxation on forestry or agricultural production.
- Programmes to support the development of low-carbon or green-growth strategies.
- Bilateral aid programmes, in particular targeting the cooperation mechanism under Article 6.2 of the Paris Agreement. This mechanism provides for a simple transfer of emission reductions achieved by one Party to another Party, with a reliable accounting system.
- Fund-type mechanisms that enhance environmental assets and/or are dedicated to the full implementation of the REDD+ mechanism, such as the FCPF Carbon Fund or the Green Climate Fund (via its budget dedicated to REDD+ results-based payments in particular).
- Private investments, via carbon markets (whether voluntary markets or the Sustainable Development Mechanism provided for in Article 6.4 of the Paris Agreement). Although postponed due to the COVID-19 pandemic, the “CORSIA” (Carbon Offsetting and Reduction Scheme for International Aviation) initiative makes it possible to offset emissions from the aviation sector by using REs produced by REDD+ programmes. This provides a new opportunity for REDD+ projects and programmes.
- Establishment of domestic carbon markets that can be developed in conjunction with a carbon or other taxation system and that would capture local financial resources.
- Private investments, through “zero deforestation” strategies or commitments made by companies as part of the Science Based Target Initiative.²⁰

¹⁹ Forest Trends’ Ecosystem Marketplace. The Only Constant is Change. State of the Voluntary Carbon Markets 2020, Second Installment Featuring Core Carbon & Additional Attributes Offset Prices, Volumes and Insights. Washington, DC: Forest Trends Association, December 2020.

²⁰ <https://sciencebasedtargets.org/>