

Current State, Barriers and Perspectives for REDD+ in the Congo Basin





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Client

German Facilitation to the Congo Basin Forest Partnership

Authors

Johannes Pirker, PhD (UNIQUE forestry and land use, Germany) Sophia Carodenuto, PhD (University of Victoria, Canada)

Date: March 2021

This product was financially supported by the German Federal Ministry for Economic Cooperation and Development (BMZ) through the German Facilitation to the Congo Basin Forest Partnership 2020-2021 and the Gesellschaft für Internationale Zusammenarbeit (GIZ). Administrative and technical support were provided by the GIZ Sector Project on International Forest Policy. The views and recommendations expressed in this study solely reflect the authors' opinions and do not necessarily display the position of BMZ.



EXECUTIVE SUMMARY

The Congo Basin is the second largest contiguous tropical forest area in the world. It is among the last large remaining forest carbon pools on the planet and currently remains a stable carbon sink. At the same time, the forests of the Congo Basin are under anthropogenic pressure from various drivers and underlying causes. Despite ongoing efforts toward conservation and sustainable forest management, the risks of losing the Congo Basin's forest ecosystems and their natural capital are increasing. To counter this trend, many Congo Basin countries have engaged in efforts aimed at reducing emissions from deforestation and forest degradation, conservation and sustainable management of forests, and enhancement of forest carbon stocks (REDD+) under the United Nations Framework Convention on Climate Change (UNFCCC) and are committing to forest protection measures.

The Congo Basin Forest Partnership (CBFP) is a multi-stakeholder forum that brings together 119 members and forest stakeholders to improve natural resource management and human well-being in the Congo Basin. In 2020-2021, the CBFP is facilitated by the Government of Germany. The German Facilitation has commissioned a series of background studies on topics relevant to the future of the Congo rainforests. The study at hand focuses on the status quo of REDD+ in the Congo Basin and potential courses of action to overcome identified barriers to REDD+ implementation.

Globally, the progress of REDD+ (from "readiness" via "implementation" to "results-based payments") varies from country to country. However, particularly for African countries, there is wide consensus that REDD+ has not made the progress initially hoped for. This report summarizes the status quo and highlights barriers to the effective implementation of REDD+, with a specific view to the Congo Basin. The study focuses on the Democratic Republic of Congo (DRC), Gabon, and Cameroon, as exemplary case studies for the Basin. Where possible, the study presents conclusions at the regional level.

The report draws on a thorough review of the available literature. It is complemented by 21 semi-structured anonymous interviews with key REDD+ experts. The authors conducted the interviews between November 2020 and February 2021. Interview partners include representatives of Congo Basin countries, donor states, academia, NGOs and independent technical experts. Instead of going to lengths in elucidating the entire range of options for reducing deforestation and forest degradation, the study report lists concrete courses of action which might be pursued in the future. Key findings on barriers to REDD+ progress in the Congo Basin and ideas for overcoming these are outlined below.

Severe governance challenges persist. Political will to implement REDD+ varies amongst national governments and local stakeholders and merely increasing REDD+ funds will not necessarily increase political will. Incoherence between sectoral land-based policies (e.g., agriculture, forestry, and mining) is detrimental to the REDD+ agenda. In this context, highlighting win-win solutions for forests and other land-based sectors is crucial. This calls for sustainable agricultural intensification, which reduces pressure on natural forests. Also, land tenure should be strengthened, and pro-active policies for land-use planning, infrastructure and family planning to reduce demographic pressure could be promoted. Cross-sectoral alignment and policy coherence can be achieved by anchoring the REDD+ agenda at a high political level.



Forest monitoring and MRV capabilities have been significantly improved in most Congo Basin countries. However, most systems to measure, report and verify (MRV) emissions in the region are still unable to reliably track more gradual and nuanced forest degradation, or the carbon sequestration function of standing forests. Regional off-the-shelf solutions with potential for national-scale adaptation provide a promising pathway toward more coherent forest monitoring. Forest inventories merit more attention from donors and might be facilitated by the advent of disruptive technologies. At the same time, it should be noted that improved MRV capacities per se will not solve the complex challenges of rising rates of deforestation and forest degradation.

Conceptual and technical challenges persist around the notion of reference levels. While the historical average over a reference period is the most commonly used approach under UNFCCC's Warsaw Framework, upwards adjustments due to national circumstances are possible to potentially obtain higher levels of results-based payments (RBPs). In this context, environmental integrity and methodological soundness should be key criteria for assessing emission reductions to ensure a real mitigation impact.

There is growing scope to include "Plus activities" from REDD+ in RBP schemes. As opposed to avoided deforestation of threatened forests, these new models emphasize the important role of standing forests, including their role in the global carbon cycle and the ecosystem services they provide. Conceptual challenges persist concerning the notion of additionality and the scope of REDD+ under UNFCCC. More robust MRV systems and resulting data and information are needed to allow for an accurate appraisal of the role of stable forests. In parallel, effective lobbying with international funding mechanisms has the potential to increase funding streams that reward standing forests in high forest low deforestation countries in the Congo Basin for their role in the global climate system.

Multiple financing sources exist for REDD+ which, to date, have focused on readiness and the RBP phase. Several funders and multi-donor partnerships are discussing stronger provisions for countries with historically low deforestation rates, so-called high forest low deforestation (HFLD) countries, some of which can be found in the Congo Basin. The year 2021 represents a window of opportunity to influence reforms of existing REDD+ financial incentive structures in favor of HFLD countries and sub-national regions. More attention should be directed towards alternative and complementary set-ups such as local schemes of payments for ecosystem services funded by small domestic taxes on consumables, nature swaps and conservation offsetting.

Given limited available public funding, the private sector plays a critical role in future efforts to preserve Central African forests. The industrial forest sector manages immense forest areas in the countries' national forest domains through the concession system. While concessions hold strong provisions for halting deforestation, the sector is under pressure. The Concessions 2.0 concept integrates multiple land uses within the boundaries of existing forest concessions and may represent a much-needed new business model for sustainable forestry. Changes in the fiscal system of the industrial logging sector may incentivize more sustainable production. Cocoa is one of the few agricultural products from the region with a substantial role in international markets. In Cameroon, the cocoa sector is elaborating policies to free the supply chain of deforestation. Such efforts offer a valuable entry point for support via the CBFP as well as by Germany and other invested parties. The High Conservation Value (HCV) and High Carbon Stock (HCS)



approach to "earmark" the most valuable forests for preservation is an important framework for the private sector.

The 'business as usual' **outlook** for the Congo Basin forests is dire. For REDD+ to be implemented more effectively, the following measures are recommended and necessary: (i) stronger political commitment to REDD+, (ii) increased policy coherence across different land use sectors, (iii) stronger financial incentive provisions for HFLD countries in REDD+, and (iv) lobbying for alternative funding sources for forest ecosystems within and in addition to REDD+.



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LIST OF ABBREVIATIONS

AfriTRON	African Tropical Rainforest Observation Network
AGEOS	Agence Gabonaise D'Etudes Et D'Observation Spatiales
ART	Architecture for REDD+ Transactions/ Environmental Excellence Standard
BSP	Benefit sharing plans
CAFI	Central African Forest Initiative
CBD	Convention on Biological Diversity
CBFP	
CF	
CFI	Cocoa and forests initiative
CNC	National Climate Council (Conseil National Climat) of Gabon
COP	Conference of the Parties
DFN	National forest estate (domaine forestier national)
DRC	Democratic Republic of the Congo
EUTR	EU Timber Regulation
FAO	Food and Agriculture Organization of the United Nations
FLEGT	Forest Law Enforcement, Government, and Trade
FONAREDD	The national REDD+ fund of DRC
GCF	Green Climate Fund
GFOI	Global Forest Observation Initiative
HCV	High Conservation Value
IDH	International Sustainable Trade Initiative
INPE	National space agency, Brazil
ISFL	Initiative for Sustainable Forest Landscapes
JNR	Jurisdictional and Nested REDD+ framework by Verra
LiDAR	Light detection and ranging
LoI	Letter of intent
MINDCAF	Ministry of State Property and Land Tenure, Cameroon
MINEPDED	Ministry of the Environment and Sustainable development, Cameroon
Mio ha	Millions of hectares
MRV	leasuring, reporting and verification, Measurement, reporting and verification
Mt	Million tons
NDC	Nationally determined contribution
NPB	Nature performance bond
NTFPs	Non-timber forest products
ODA	Official development assistance



OFAC	
PES	Payments for ecosystem services systems, Payments for ecosystem services
PPECF	Program for the promotion of certified forest management
REM	REDD+ Early Movers
SFM	Sustainable forest management
ST-REDD	Technical REDD+ Secretary in Cameroon, Technical REDD+ Secretary, Cameroon
TFA	Tropical Forest Alliance
TmFO	Tropical managed Forests Observatory
UN- REDD+	United Nations-REDD Program
UNDP	United Nations Development Program, United Nations Development Program
UNEP	United Nations Environment Program
UNFCCC COP	
	on Climate Change
VPA	Voluntary Partnership Agreement under FLEGT
WWF	



1 INTRODUCTION AND PURPOSE

The Congo Basin harbors the second biggest contiguous forest area in the world. However, forest loss has accelerated during recent years and sustained population and economic growth in the Congo Basin countries will likely further spur deforestation. The implementation of REDD+1 in the Congo Basin has so far not achieved the impacts and changes expected when the approach was designed.

In the midst of the COVID-19 pandemic, with the world witnessing unprecedented pressure on human health and economies, the state of Congo Basin forests may be at a crossroads; a point at which crucial decisions must be made that will have far-reaching consequences. Expectations are high that the upcoming UNFCCC COP 26² will secure the financial means needed to implement REDD+ on large scale. As global decision makers agree on COVID-19 recovery measures, there is opportunity to draw attention to the importance of forest preservation for human health. Policy makers should make very clear that addressing deforestation, climate change, wildlife trafficking, and poverty alleviation in combination could prevent the next zoonotic infectious disease.

There is widespread recognition of the incredible value of the Congo Basin forests to human well-being on local through to global scales. Despite close to USD 2 billion allocated to nature protection and sustainable management of Central African forests since 2008 (Eba'a-Atyi et al., 2019), the forest ecosystems in this region continue to be lost and degraded at increasing rates (Tyukavina et al., 2018). REDD+ in particular has fallen short of its original "theory-of-change", i.e. to provide meaningful financial incentives to change the behavior of governments, firms, and individuals and thereby improve environmental stewardship and foster social values (Cashore et al., 2016).

Notwithstanding the persisting challenges, different institutions continue their efforts to preserve the invaluable forests of the Congo Basin. The Congo Basin Forest Partnership (CBFP) was established in 2002. It is a multi-stakeholder forum that brings together 119 members: African countries, bi- and multilateral donor agencies, governments, international organizations, NGOs, scientific institutions, and private companies. They share the objective and vision to improve natural resource management and human well-being in the Congo Basin. Germany plays a key role in the CBFP and is currently facilitating the partnership for the second time.

The CBFP Roadmap for 2020-2021 that formulates objectives for the German Facilitation draws attention to the critical role of Congo Basin forests in regulating global climate, protecting biodiversity, and safeguarding the continued flow of ecosystem services locally. The German Facilitation has highlighted the crucial role of politics (both transnational and domestic politics) in reversing the current trend of continued ecosystem degradation in the region. In this regard, numerous partners from the region have been questioning whether REDD+ as a political tool that can deliver on its original intent to place more value on standing forests and thereby incentivize avoided deforestation.

 $^{^1}$ REDD+ is the acronym for 'Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries'.

² Conference of Parties to the United Nations Framework Convention on Climate Change.



The German Facilitation has commissioned a series of background studies on different topics of pertinence to Central African environmental politics and with reference to the CBFP road map. These are intended to serve as a content-related basis for discussions on different topics, which the Facilitation is attempting to initiate within the Partnership and in cooperation with affiliated organizations. The present study shall inform the Partnership on the status and prospects of REDD+ in the Congo Basin.

This study report aims to elaborate the critical issues that are hampering the implementation of REDD+ in the Congo Basin and to provide practical recommendations for courses of action in the region. We outline the status of REDD+ in the region by focusing on three exemplary countries (Cameroon, Gabon, and the Democratic Republic of the Congo, DRC). We highlight practical and policy-oriented recommendations that can be implemented in the short and long term as part of a holistic strategy to curb and eventually reverse forest destruction in the Congo Basin.

This report is structured as follows: following this introductory section formulating the context and objectives of the study (section one), section two will report on the formal achievements of REDD+ in the three focus countries. Section three focusses on main barriers for REDD+ implementation and potential options to address these; it is sub-divided into eight sub-chapters, each with a clear thematic focus such as policy coherence, forest monitoring capacities and the forest sector. Main conclusions are presented in section four. The longevity of the facts and views raised in this report will vary. Statements regarding overarching trends and deforestation drivers might be relevant for years or even decades.

1.1 Background on REDD+

Negotiations of the UNFCCC COP 16 in Cancun, Mexico in 2010 resulted in the "Cancun decisions". These defined five forest-related activities that comprehensively covered all GHG fluxes from forests. Together, these five activities constitute the core of REDD+ and are related to three IPCC land classes: Forest remaining forest, forest conversion and re/afforestation (Table 1).

Table 1: The five REDD+ activities as per the "Cancun decisions"

IPCC category (land use transitions)	REDD+ activity
Forest converted to non-forest	Reducing emissions from deforestation
Forest remaining forest	 Reducing emissions from forest degradation Sustainable management of forests and/or conservation of forest carbon stocks Enhancement of forest carbon stocks (in existing forests)
Non-forest to forest	Enhancement of forest carbon stocks (taking the form of re/afforestation)

Source: modified from Lee and Sanz Sanchez (2017)

Deforestation and forest degradation result in forest and carbon loss at varying levels of intensity. These are represented by the two Ds in REDD+, whereas the Plus refers to the remaining three activities: sustainable forest management (SFM), conservation and enhancement of forest carbon stocks. SFM testifies to the use function of forests, which can align with their role in



mitigating climate change. Conservation of carbon stocks typically remains irrelevant because, in practical terms, this activity is already covered by deforestation and degradation.

For the REDD+ activity "enhancement of carbon stocks", countries may refer to two types of carbon removals from the atmosphere: through establishment of new forests and through growth of existing forests. New forests can grow as a result of deliberate planting activity or as a result of natural regeneration or mixed forms such as assisted natural regeneration, where natural regeneration is enabled by removing obstacles such as controlling recurrent fires or cattle herds. Carbon stock enhancement in existing forests can occur when secondary or degraded forests recover or when plantations mature. Another relevant option for the Congo Basin is that mature forests – protected from conversion or degradation – continue to sequester carbon as they age.

All the REDD+ activities listed in Table 1 refer to flows of carbon to and from the atmosphere – not stocks of carbon. In this context, *additionality* is a concept of particular relevance for the Congo Basin countries. In practice, it means that having standing forests is not rewarded under REDD+. Instead, REDD+ remunerates avoiding forest loss or enhancing forest growth. Additionality surfaces in reference level provisions; it puts the Congo Basin with its vast forests but comparatively small rates of loss and gain in a comparative disadvantage with other forest regions.

The Warsaw Framework was adopted at Conference of Parties (COP) 19 held in Warsaw in 2013. It presents rules and guidance for REDD + design and implementation. It provides modalities for measuring, reporting and verifying (MRV) GHG emissions and removals as an essential tool for linking REDD + activities to results-based finance.

REDD+ is an incremental process in time and space. The three phases of REDD+ are differentiated as follows:

- (1) a readiness phase, where countries prepare the elements needed for implementation i.e., a national REDD+ strategy and action plan, a national Forest Monitoring System, an MRV system, a safeguards information system (SIS) and a forest reference (emission) level (FREL/FRL).
- (2) an investment phase where the goals and activities leading to REDD+ as per the strategy are bolstered, and
- (3) an RBP phase, where the countries receive payments for reducing deforestation. While subnational piloting (typically at the level of second-order jurisdictions) is not the primary purpose due to the risk of leakage, it is still common.

Further guidance for implementation is often linked to the nature of the payment (e.g., funds that pilot carbon market transactions have tighter constraints). The specifics of most common sources of funding are outlined in section 3.6 on financing approaches.



1.2 The Congo Basin forest: Trends in carbon sequestration, deforestation and degradation

The Congo Basin harbors tropical forests covering 269 million hectares (Mio ha) (OFAC, 2019), second only in area to the Amazon Basin and larger than the forests in South-East Asia. Yet, of the three great swathes of tropical rainforest left on Earth, only those of the Congo Basin still stand relatively strong. Weighing carbon removals (by forest growth) against emissions (resulting from deforestation and forest degradation), South-East Asian forests are a net carbon source and the Amazon is at the brink of becoming one. Only the Congo Basin is still a clear and stable carbon sink of around 610 million tons (Mt) CO₂ per year (Harris et al., 2021).

The Congo Basin forest is threatened by a multitude of factors. In the natural realm, increasing heat and drought is believed to be stifling the growth of the trees in the African rainforest, a phenomenon previously observed in the Amazon. New research provides the first large-scale evidence that tropical rainforests around the world that have been untouched by logging or other human activity are slowly losing their potency to fight climate change. On an area basis (i.e. not accounting for future deforestation), the sequestration function of the Congo Basin forest might decline by around 10% until the middle of the next century (Hubau et al., 2020).

More important is the direct human impact on forests. Forest loss in the Congo Basin has a context that is different from other tropical forest biomes. Smallholder agriculture, predominantly practiced in shifting cultivation systems, is the main driver of deforestation, as shown in Figure 1.

Most forest loss is currently driven by subsistence and small-scale semi-commercial farmers clearing forests to feed themselves and residents of nearby towns and cities. As opposed to the large-scale destruction consolidated in a relatively small number of deforestation agents in the Amazon or South-East Asia, the situation in the Congo Basin is that industrial-scale clearing represents only a small fraction of all forest loss in the Congo Basin (Molinario et al., 2015; Tyukavina et al., 2018).

With a high volume of small-scale deforestation agents spread across the landscapes, deforestation and forest degradation trends are closely linked to domestic "megatrends": population growth and urbanization. Growing urbanization stimulates the development of commercial agriculture for food supply as well as timber extraction to supply a growing construction sector. Urban population growth also expands demand for energy (Mosnier et al., 2015; Pacheco et al., 2021). The COVID-19 crisis exacerbates the situation for forest-dependent communities (Mbzibain et al., 2021) and it holds long-term risks for the region's food system (Ali et al., 2020), which is intertwined with its forests.



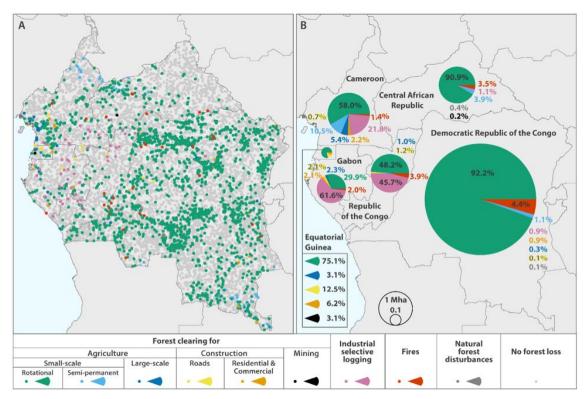


Figure 1: Forest disturbance driver. (A) Reference disturbance driver for each sampled pixel; (B) National estimates of 2000–2014 forest loss area by disturbance driver

Source: Tyukavina et al., 2018

It is relevant to think critically about what is currently driving deforestation and forest degradation, as well as what factors may play a role in the future. The drivers of deforestation in the region are diverse. Small-scale agriculture for subsistence or domestic consumption remains the main driver of deforestation, although regional variations exist. Economic modeling in the region forecasts a significant increase in annual deforestation in this current decade as compared to the beginning of the century (Megevand et al., 2013; Mosnier et al., 2015).

A recent WWF study identifies four major deforestation fronts in the Congo Basin among 24 fronts globally. These are 1) The Center and South regions of Cameroon, 2) the tri-border area of Cameroon, Gabon and the Congo, 3) the area stretching along the border of the Central African Republic and the DRC, as well as 4) the Southern Kasai provinces of the DRC. In these fronts and hotspots of deforestation, large-scale farming does play a crucial role. The nature of actors in these fronts varies from small-scale farmers to agro-industrial entrepreneurs (Pacheco et al., 2021)³.

In sum, addressing deforestation in the Congo Basin primarily requires tackling the (small-scale) agricultural sector while keeping in mind the potentially emerging commercial agriculture sector in the future (Pacheco et al., 2021). The three countries covered in this study performed their own, very detailed analyses of deforestation drivers as a pre-requisite for successful REDD+ implementation.

https://panda.maps.arcgis.com/apps/opsdashboard/index.html#/cf457468144d4f5586c300c6e4f9f590.

³ See an online map and dashboard here:



2 THE CURRENT STATUS OF REDD+, FOREST MANAGE-MENT AND CONSERVATION IN CENTRAL AFRICA

The DRC, Cameroon, and Gabon are diverse in terms of tree cover, political will and, ultimately, engagement in the REDD+ process. This section aims at presenting key facts about the national forests and their use as well as formal achievements of the three countries.

2.1 Democratic Republic of the Congo (DRC)

With 150 million hectares (Mio ha) the DRC contains more than half of the remaining Congo Basin rainforest. Of this, 32 Mio ha are in protected areas of different protection status and industrial forest concessions cover 7% or 12.2 Mio ha of the DRC's forests (OFAC, 2019) — an area about the size of the country Malawi.

DRC has been engaged in REDD+ since 2009 and continues to be very successful in claiming international donor support. It has signed 29 international conventions and enacted more than 40 national laws, decrees and orders around the protection of the environment. However, weak implementation of these international agreements persists (Kengoum et al., 2020a).

DRC regularly reports its GHG emissions to the UNFCCC (blue line in Figure 2); by far, most of these are related to deforestation and forest degradation. In parallel, the DRC has developed the elements of the Warsaw Framework for REDD+ (green line in Figure 2), mostly within the scope of the country's engagement with the Forest Carbon Partnership Facility (FCPF) as detailed in Table A 3 in the annex, but also with substantial support from UN-REDD⁴.

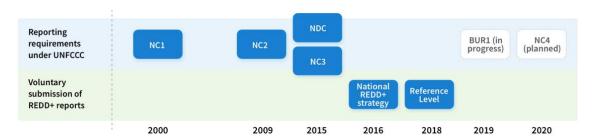


Figure 2: Milestones of DRC en route to REDD+ implementation

Source: CfRN (2020); Abbreviations: NC - national communication; BUR - Bi-annual update report

The REDD+ pilot focus of the DRC is on the Maï Ndombé province: this is where REDD+ at jurisdictional level is piloted (and RBPs from the FCPF will be received). This was facilitated by major inputs from international NGOs, notably the World Wide Fund for Nature (WWF) and Wildlife Works Carbon. The concept for the benefit sharing mechanism developed for Maï Ndombé was applauded by one interviewee from an NGO as being robust and simple enough for implementation. It encompasses measures such as one-off payments for logging companies and annual RBPs for smallholder farming communities. Implementation on the ground remains fragile: a

⁴ The UN-REDD Program is a collaborative program of the Food and Agriculture Organization of the United Nations (FAO), United Nations Development Program (UNDP) and United Nations Environment Program (UNEP), created in 2008.



recent NGO report on Maï Ndombé discloses low levels of awareness about REDD+ and villagers' growing frustration about lacking or lower-than-agreed financial compensation from the project implementers (Berk and Lungungu, 2020).

Outside the Maï Ndombé province, the national REDD+ investment plan for the period 2015–2020⁵ lists 26 prospective projects at regional or national scale across 11 provinces. Until mid-2020, the FONAREDD steering committee accepted 17 of these projects for funding⁶. The role of the Central African Forest Initiative (CAFI) is instrumental here as it funds these projects in part or fully. Nevertheless, REDD+ implementation currently remains restricted to Maï Ndombé.

It is noteworthy that the private sector seems to have discovered the DRC for jurisdictional-scale REDD+ projects, e.g., for the Tshopo province. These have benefited significantly from the REDD+ preparations performed during the last decade: jurisdictional-scale projects can nest within the national REDD+ architecture by applying nationally endorsed reference levels and using the national monitoring system. Implications of this recent development will be discussed in section 3.6 on financing approaches.

2.2 Gabon

With an area of almost 23.6 Mio ha, forest covers more than 90% of Gabon's landmass. Strong land zoning is a particular feature of the country: forest concessions cover 16 Mio ha and protected areas another 11.5 Mio ha (Figure 3), such that the state claims control over the vast majority of the country's forest.

⁵ See https://redd.unfccc.int/uploads/3262 4 redd investment plan eng.pdf.

⁶ See https://www.cafi.org/content/cafi/fr/home/partner-countries/democratic-republic-of-the-congo/drc-fonaredd-programmes.html.





Figure 3: The national forest domain makes up most of Gabon's forests; either as logging concessions (brown) or protected areas (green)

Source: OFAC, 2020; https://www.observatoire-comifac.net/analytical_platform

From the early days of REDD+ in the late 2000s onward, Gabon actively demanded to be codevelopers – not recipients – of international development projects. This high level of self-assurance was historically boosted by the country's relative wealth rooted in a thriving petrol industry. Hence, Gabon (alongside Equatorial Guinea) gradually disengaged from REDD+ preparations after 2009.

Continued low petrol prices and the resulting state deficit renewed the country's interest in valuing its forests. To that end, the industrial forest sector and agro-industries (oil palm) are main fields of action. In 2011, Gabon enacted an export ban on unprocessed wood, and in 2018, the President announced that by 2022 all forest concessions in the country would need to be certified against the standards of the Forest Stewardship Council (FSC)⁷. Alongside supportive measures such as the creation of a wood transformation cluster outside the capital city Libreville, these measures have led to the forest sector making a relatively high contribution to the national economy and job creation⁸.

⁷ See the FSC announcement here: https://www.fair-and-precious.org/files/upload/news/3101-Accord-de-cooperation-FSCGabon.pdf and an analysis of both actions here: https://news.mongabay.com/2018/10/the-legal-institution-alization-of-fsc-certification-in-gabon-commentary/.

⁸ http://frm.group/wp-content/uploads/6Gabon_BAD__Diaporama_Aout2018.pdf.



Gabon's absence from the REDD+ stage changed recently. In 2019, Gabon entered into a bilateral agreement for RBPs with Norway, allowing the country to receive funding of up to USD 15 million per year over a 10-year period. Underlying the agreement is a strong existing governance framework (chapter 3.1), an operational MRV system (chapter 3.3) and a set of flexible provisions regarding baseline settings agreed with CAFI (chapter 3.4). Gabon also re-engaged with the FCPF and was accepted as a recipient for REDD+ readiness funding⁹. As such, the country is currently actively working on achieving REDD-readiness.

The National Climate Council (*Conseil National Climat*, CNC), an agency attached to Gabon's president, drives the country's climate agenda, including REDD+. It oversees reporting under the UNFCCC (progress shown in Figure 4) and other initiatives financing REDD+ at the preparation (FCPF) or investment phase (CAFI).



Figure 4: Milestones of Gabon en route to REDD+ implementation

Source: CfRN (2020); Abbreviations: NC - national communication; BUR - Bi-annual update report; NDC - Nationally Determined Contribution

Nevertheless, development of the technicalities of REDD+ has only recently started. As a result, the institutional memory of the country is still relatively weak. Technical personnel – although considered highly motivated and capable – are still in need of training for measuring and reporting GHG emissions and other basic activities underlying REDD+, as one interviewee noted.

2.3 Cameroon

With an area of 18.6 Mio ha, Cameroon harbors 11% of the dense humid forests in the sub-region, of which almost half (eight Mio ha) are under concessions and another 2.2 Mio ha are within protected areas (OFAC, 2019).

Cameroon's legal framework governing forest use stands out for its designation of "non-permanent" forest classes: hundreds of community and council forests and sales of standing volumes (vente de coupe) totaling more than 4 Mio ha of dense humid forests. Notably, in the South region bordering Gabon, logging titles allowing wood harvest far beyond regrowth rates and without management plans (so-called sales of standing volumes – vente de coupe) are gate-openers for subsequent conversions of forest land into agro-concessions (Cerutti et al., 2016; Pirker et al., 2019; Sartoretto et al., 2017). The remaining forests are outside the national forest

Current State, Barriers and Perspectives for REDD+ in the Congo Basin

⁹ See the decision by the FCPF: https://forestcarbonpartnership.org/system/files/documents/Final%20Resolution%206%20Gabon.pdf.



estate (domaine forestier national; DFN) and generally in a relatively pronounced state of degradation¹⁰. Further down the supply chain, Cameroon has, in recent years, become the top supplier worldwide of round wood and sawn wood to the wood manufacturing hub Vietnam (ITTO, 2020; Xuan To et al., 2020).

In the agricultural realm, Cameroon is considered the breadbasket of the sub-region. The country exports significant amounts of food to the neighboring countries, notably to densely populated Nigeria and oil rich Gabon and Equatorial Guinea, which do not have significant domestic food production. This status as the "farm of Central Africa" has implications for deforestation, and the idea that REDD+ should primarily serve the country's development is at the core of the Cameroonian engagement in REDD+. Consequently, the narrative of REDD+ interventions in the country was always centered around "sustainable intensification" ("intensification écologique)" of the agriculture sector, i.e., meeting the needs of the country's rapidly growing population.

Local-scale REDD+ projects, mostly driven by NGOs with some degree of government support, are being piloted in the South West Region around Mount Cameroon and in the South and East Region (Ngoma et al., 2018; Sills et al., 2014).

Nevertheless, the national-scale outcome is unsatisfactory: Cameroon is one of the few countries worldwide that has not been included in the carbon fund portfolio of the FCPF despite having received preparation funds earmarked to that end. To date, the country has not submitted a national or jurisdictional-scale FREL/FRL to the UNFCCC¹¹ or a financing institution.

A draft national REDD+ strategy provides orientation to readiness elements (as outlined in section 1.1), referring to a wealth of technical studies on elements of REDD+. This document has been validated at national level but not yet submitted to the UNFCCC. Funding for the Technical REDD+ Secretary (ST-REDD), the unit in charge of coordinating REDD+ at technical level, ran out and ST-REDD was dissolved. There is currently a "Technical body for national coordination" but this exists on paper only. Overall, this is arguably a poor outcome from the several million USD invested in REDD+ readiness in Cameroon.

The details and reasons behind this shortcoming are rooted in a lack of political interest in REDD+ as detailed in section 3.1 and institutional coordination across sectors (section 3.2).

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¹⁰ http://frm.group/wp-content/uploads/10Cameroun BAD Diaporama Aout2018.pdf.

¹¹ See https://redd.unfccc.int/submissions.html.



3 BARRIERS AND POTENTIAL SOLUTIONS FOR ADVANCING IMPLEMENTATION OF REDD+

3.1 Political will and "governability"

Current status

In all Congo Basin countries, the government owns most of the forest land, and there is a history of governments perceiving any external initiative to influence forest and land use policies as an infringement on national sovereignty (Ongolo and Karsenty, 2015). In this context, REDD+ was proposed as a "hands-off mechanism" with donors paying for results, regardless of how these results were obtained (as long as the safeguards defined in the Warsaw Framework on REDD+ were "addressed and respected"). Despite increasing international pressure to protect biodiversity and mitigate climate change, the state of the forest in the Congo Basin has generally deteriorated, with deforestation and forest degradation continuing. There appears to be significant political resistance (or lack of capability) to implementing the changes required to access REDD+ funds. Several possible explanations are discussed, and we outline a selection of the most plausible below.

The lack of clear decision-making at high political levels (Presidency or Prime Minister of these countries) has veiled REDD+ beneath the many priorities forced upon state bureaucrats. This is a general problem for forest policies and has been repeated with regard to REDD+. Except for Gabon, engagement with REDD+ has mostly remained constrained to one sectoral or regulatory ministry, e.g., environmental protection in Cameroon, or the finance ministry in DRC. These ministries have limited power to enact the necessary broad-based land use policy reform. REDD+ is not a sector *per se* but rather requires cross-sectoral and inter-ministerial coordination to be effective at scale. In some cases, present REDD+ implementation is constrained in space (e.g., to one district or province such as in DRC).

Weak institutional capacities are an important element in explaining the limited engagement in REDD+. Several countries in the Congo Basin are "fragile states" that have severe difficulties in managing violent internal insurrection or in providing food security for citizens, let alone in engaging in climate mitigation through a sweeping policy reform such as REDD+. This reality must be considered and it is arguably unrealistic to expect any country or region to deliver climate mitigation benefits without having achieved territorial integrity or a certain level of human development. Expectations should be managed carefully since "REDD tends to go very deep into the structure of the economy and might be going against traditional ways of managing the land. There are always forces siding against it, even if the government is willing" (Schroeder et al., 2020).

A Cameroon official expressed his disappointment in one of our interviews: "When I come home [note: in the capital city Yaoundé] in the evening there is a 50% chance that there will be no running water. How should this country protect its forests if it cannot even supply running water reliably?" A notable example here is the Central African Republic and parts of DRC: even if clear political decisions were taken, the countries would probably not be able to exert enough power over their territories to implement REDD+ or to enforce other pro-forest policies.



Against this backdrop, interviewees from international development organizations partly acknowledge that RBPs may not be a silver bullet solution for the Congo Basin forests. In this respect, they partly agree with Karsenty and Ongolo (2012) who argue that in the Congo Basin countries with their weak state administrations, the incentives-based approach of REDD+ is inappropriate. In brief, more case-specific research on the local-to-national institutional capacities for implementing REDD+ is needed.

Another explanation for limited engagement is the relatively low level of substantiated funding coming from REDD+. The bilateral agreement between-Gabon and Norway could serve as an example: despite the price of a ton of carbon (at USD 10¹²) being double the USD 5 usually quoted, the expected annual cash flow of USD 15 million still makes up only around 0.4% of the annual state budget.¹³ Hence, if considered as a compensation mechanism, current carbon prices are insufficient to compete financially with forest-destructive land uses. The lack of evidence on the opportunity costs approach is revealed, for instance, by a global study by Ickowitz et al. (2017; involving Cameroon) and Rossi et al. (2017; for the industrial forest sector in the Congo Basin).

Rather, REDD+ funds (and PES schemes in general) are perceived as a "cherry on the cake" (where pro-forest investments are made) or a means of "swallowing the bitter pill" (where law enforcement and other coercive policies are designed) (Karsenty et al., 2017). This means that intelligent investment of REDD+ funding aims at creating an enabling environment for pro-forest activities.

Many engaged in REDD+ promoted the initiative as a "silver bullet", hence raising high expectations in forest countries. In reality, the level of actually available financial incentives (as opposed to those pledged), both for readiness and for results, is now perceived as insufficient to make the REDD+ agenda a powerful convener for relevant sectoral policies (such as forest, agriculture, land use planning, mining). These sectoral policies tend to be incoherent and not in favor of forest protection (see section 3.2).

In brief, a certain level of fatigue and disappointment vis-à-vis REDD+ can be observed. This is true for both Congo Basin countries (lamenting that, after 10–15 years, not much cash has flown into the region) and the international community (contemplating the varying levels of political interest in REDD+ and combatting deforestation).

Recommendations

The problems described above speak to the big issues of overly optimistic expectations vis-à-vis REDD+ funding streams on the one hand and insufficient governance on the other. The latter requires long-term and sustained support and pressure for reforms using the established toolbox of development cooperation. This short list of possible courses of action therefore only represents a subset of the long list of potential financing options available to Congo Basin countries.

¹² The price of USD 10 is still conditional upon fulfillment of a number of boundary conditions.

¹³ The state budget being 4.2 billion EUR per year, see https://www.jeuneafrique.com/648801/economie/gabon-unbudget-2019-en-baisse-de-38/.



Scale up REDD+ funding and simplify access to finance

The once expected funding streams from international institutions have definitely not eventuated and there is a possibility that they may not do so in the future. Simply speaking, "to make the carrot bigger" is one potential course of action for increasing forest countries' appetite to engage in REDD+. The agreement between Norway and Gabon has clearly shown this.

Nevertheless, the efficiency of increasing the monetary incentives alone is likely limited due to factors relating to state fragility as stated above – more funds will not improve state governance per se. Once outcomes from the Norway–Gabon deal and the significant focused engagement of CAFI become apparent, it will be easier to judge whether channeling more funds to the Congo Basin will be one possible pathway to slowing down deforestation.

Increase countries' responsibility for implementing sectoral reforms

Several interview participants confirmed that the GIZ and KfW are highly respected institutions of bilateral collaboration throughout the region due to their long-standing and concrete engagement¹⁴.

Bilateral donor relations are generally a more suitable platform to push for policy reforms as compared to multilateral settings. This is because in multilateral settings (such as the Green Climate Fund (GCF)), the influence of individual donors is diluted and rules need to be set in advance in a relatively inflexible one-size-fits-all approach. The "GCF Scorecard", the basis for assessing countries' performance, is currently being reviewed. Concrete recommendations in that regard are highlighted in section 3.6 on financing approaches.

Country-to-country partnerships and coalitions of donors such as CAFI (which also allows for direct country-to-country payments) allow for more specific and targeted agenda setting to pressure specific reforms in recipient countries.

In relation to Norway's bilateral agreements, one interviewee noted that in the past, Norway had repeatedly acted alone while hoping for other donors to join in the process (e.g. in the HFLD country Guyana; Angelsen, 2017). In practice, other donors often did not do so because Norway had in the meantime already negotiated terms with the host country and these were not acceptable to other actors (e.g., the inflated reference level based on the McKinsey model in Guyana).

Particularly within CAFI, there is a collaborative spirit that does allow individual donors to set their own priorities without other donors interfering. One example is the industrial logging sector, which is a favored field of intervention for France and Germany, whereas other donor countries within CAFI set different priorities.

Closely related to this point are the nature and modalities of setting baselines, both in technical terms and regarding institutional development and implementation of reforms. The main question here is whether to define a baseline based on an envisaged outcome (reduced deforestation and emissions) on the basis of an output, i.e., the country's demonstrated willingness to design

¹⁴ A glimpse at Côte d'Ivoire is interesting in this context: The GIZ-supported Tai National park is literally the only remaining intact forest in the entire country and there is a deep sense of gratitude towards Germany for having remained there even during the dangerous political crisis in 2011.



and implement REDD+ policies. The matter of policy coherence includes most notably stream-lining of sectoral policies that touch on forests, as will be discussed in section 3.2.

Key points

- Concerted donor action such as within CAFI, the FCPF or the GCF is generally the preferred modus operandi over bilateral partnerships. Notably, CAFI markedly enhanced streamlining of donor activities in DRC and Gabon.
- The advantage of bilateral country partnerships is in focused staff deployment resulting in enhanced trust relationships. In terms of countries' accountability, the benefits of bilateral agreements are unclear.

Focus on underlying causes of deforestation as an intermediate measure

If REDD+ does not enjoy clear political support, there might still be in-country support to tackle underlying causes and drivers of deforestation outside the forestry realm using the tools of official development assistance (ODA). Cross-sector interventions can contribute to creating an enabling environment for REDD+ implementation. Nevertheless, to actually deliver for forest protection, these crucial efforts need to be embedded in and streamlined with a set of policies favoring forests (Sellers, 2017).

Forest landscapes in Central Africa are shaped by transport costs for agricultural and other goods, which are among the highest in the world (Supee and Raballand, 2008). Expanding or upgrading the road network therefore has the significant potential to improve local people's economic situation. However, in providing access to remote regions, new roads cutting through intact forests are detrimental to the integrity of extensive forest areas. They tend to facilitate a multitude of additional and often illicit activities such as mining, poaching, and land colonization, which ultimately result in deforestation (Kleinschroth et al., 2019a; Kleinschroth and Healey, 2017).

A mitigation hierarchy should be the guiding principle for infrastructure planning. This is a framework for mitigating forest losses from development by sequentially avoiding forest impacts wherever possible; minimizing impacts where these are unavoidable; restoring following impacts in cases where these are time bound; and finally offsetting or compensating major residual impacts. This logic already exists in the legislation of several Congo Basin countries (zu Ermgassen et al., 2019). The potential for financing REDD+ from offsets of infrastructure projects will be discussed in section 3.6 on financing approaches.

On a wider scale, land use planning at multiple levels of governance is a key tool for bundling the multitude of demands on forest land, while offering significant economic benefits (Baffour Awuah et al., 2014; Deininger, 2003).



Key points

- Infrastructure expansion and upgrade should follow a strategic and resource-efficient approach, where intact forests are spared from new roads and road upgrades are accompanied by efficient land use planning.
- Cross-sectoral initiatives (such as family planning and strategic road development) are promising options for several Congo Basin countries, even when formal REDD+ engagement is weak.
- Land use planning has the potential to integrate the multiple approaches towards land and forests.

In Cameroon and the DRC, rapid population growth is one key underlying driver of deforestation with the main direct cause being shifting cultivation (CAFI, n.d.; MECNT, 2012)¹⁵. Population growth (and related increases in food consumption) tends to outpace potential gains made by agricultural intensification resulting in increased demand for land. Small changes in population growth do show the single strongest impact in land use scenarios for the Congo Basin (Megevand et al., 2013; Mosnier et al., 2015). In that sense, family planning policies can be considered a valid option with potential benefits for multiple segments of society beyond the forest sector (Kwete et al., 2018).

In the early 2000s, Rwanda demonstrated the effectiveness of family planning. Within less than a decade, the voluntary family planning campaigns brought the number of births per woman from 5.6 to 2.6 and the use of contraceptive methods jumped from 17% to 52% (Westoff, 2013). However, scientific evidence on the impact of family planning on forests is scarce and inconclusive (see e.g. Sellers, 2017) and literally absent in the Congo Basin.

CAFI is piloting a family planning project for 180,000 households in the DRC, representing 33 million EUR or around 15% of the total CAFI budget. Five more of the CAFI/FONAREDD-funded provincial integrated programs, covering eight provinces, had integrated demography activities and targets over the period 2014–2020¹⁶.

Key points

- Family planning can contribute to an enabling environment for REDD+ implementation but it is a sensitive issue. National governments (or institutions such as FONAREDD) should decide on measures rather than the international community.
- Given the financial magnitude of the family planning program within CAFI and the current absence of scientific evidence to justify the approach, thorough program validation will be crucial before renewed funding is channeled in this direction.

¹⁵ See Meyfroidt (2016) for the terminology differentiating direct, underlying and proximate drivers of deforestation.

¹⁶ See https://www.cafi.org/content/cafi/en/home/partner-countries/democratic-republic-of-the-congo/drc-fonaredd-programmes.html.



Addressing small-scale agriculture as a deforestation driver

Smallholder farmers dominate the landscape of deforestation drivers in the Congo Basin (see section 1.2). As a result, REDD+ needs to tackle primarily smallholder deforestation, either through investment (phase 2 of REDD+) or RBPs (phase 3 of REDD+) or both. These can take the form of law enforcement, notably within the boundaries of the national forest estate, or monetary and non-monetary benefits. Experience with benefit sharing plans (BSPs) within the FCPF and the KfW- and GIZ-funded REDD+ Early Movers (REM) program shows that communities rarely opt for direct cash transfers (which would be quite low on an individual level) but rather for participation in community development projects (World Bank, 2019).

The Mai-Ndombé REDD+ pilot in DRC holds first lessons learnt for other REDD+ benefit-sharing plans for the sub-region. One interviewee from an NGO considered the BSP concept there, which included cash payments to communities, to be robust and simple. Recent NGO coverage points to imperfect implementation owing to elite capture and delayed payments to communities (Berk and Lungungu, 2020). Moreover, an agreement on a national-scale, benefit-sharing mechanism has not been reached (Kengoum et al., 2020b). The mining sector holds an example for a benefit-sharing mechanism in DRC. It is included in the 2002 Mining and Forest Codes, providing a legal structure for tax distribution. On a higher level of analysis, a recent WWF report suggests that it is too early to draw firm conclusions on the state of BSPs as they are mostly still in the design phase (Bertzky et al., 2021). Table A 1 in the annex lists some advantages and challenges of monetary and non-monetary BSPs.

Drawing on information from Berk and Lungungu (2020) and Bertzky et al. (2021) as well as interviews, the following recommendations are made with regards to BSPs:

Key points

- Monetary and non-monetary benefits both have their pros and cons and the choice of either is very context-dependent. If monetary benefits are delivered, timing is key.
- Land use planning and measures to enhance land tenure should be part of most or all BSPs.
- In the absence of land registries that include individual farmers in most of the Congo Basin, REDD+ benefits should be disbursed at community level.
- For the DRC, lessons learnt from an existing BSP in the mining sector should be considered.
- An independent cost-benefit analysis of the effectiveness of REDD+ funds in Mai-Ndombé over the last 13 years should be commissioned. If this analysis is positive, this will significantly increase donors' confidence in the fiduciary capacities of FONAREDD.

Intensification of sustainable agriculture as an essential sectoral REDD+ policy has the potential to generate a win-win situation. This potentially increases the political feasibility of such policies.

Caution must be taken when payments are directed to individual local land users as they may have adverse consequences and could trigger additional deforestation. Many micro-level studies show that, particularly in times of commodity booms, higher yields tend to provide farmers with higher income, which they tend to reinvest in both intensifying and expanding the new and profitable land use. This has been demonstrated, for instance, by Ordway et al. (2017) for the



Congo Basin; rebound effects are particularly likely to occur under conditions of unconstrained labor availability, as is the case in most of the Congo Basin with its fast-growing young population willing to migrate regionally in search of economic opportunities (de Wasseige et al., 2015).

How can rebound effects be avoided in the context of the Congo Basin? A viable concept to counter rebound effects is to differentiate interventions in time and space and between targeted supply chains. Drawing on successful examples of payments for ecosystem services (PES) programs from Mexico (Karsenty et al., 2017), land sparing and social targeting plus chronological combinations of both could be successful strategies. For the case of populations strictly depending on forest resources, time-limited co-investments to facilitate 'asset-building' (such as tree crops and other tree-based systems) should be combined with conditional remunerations for conserving remaining forests and other natural resources. The thus created 'assets' (such as crop trees) could generate farm income in the long run that exceeds revenue from current, less environmentally friendly activities. In this setup, PES would act as enabling catalysts for forest restoration in the form of crop trees, which would subsequently generate revenues exceeding the costs of investment.

Meyfroidt (2018) suggests that income- and price-elasticities of food, feed and energy commodities are discriminating factors that induce either land sparing or rebound effects. In other words: as the relative wealth of the population of the Congo Basin increases, their consumption habits change: they tend to consume more oils and fats, more meat and more products made from leisure crops such as cocoa.

The products sourced from leisure, flex and, to some extent, bioenergy crops (such as palm oil and cocoa), wood products and meats are characterized by high income- and price-elasticities, i.e., their consumption tends to increase as their prices drop and consumers' incomes rise. This situation bears substantial risks of triggering rebound effects with negative consequences for forests. In contrast, the demand for staple crops (such as cassava and maize) reacts in a comparatively inelastic way to price and income changes. Land use planning is a crucial tool to realize a win-win situation that balances agricultural development and forest protection (Samndong et al., 2018). Clear recommendations for donor interventions can be drawn from this.

Key points

- REDD+ can create a win-win situation for both agriculture and forests. Priority for agricultural intensification should be on staple crops, which have a low risk of causing rebound effects and aggravating the pressure on forests.
- Strategic land use planning should be given highest priority as an accompanying measure as it bears the potential to address several of the underlying causes of deforestation.
- Plantation trees and agroforestry are good subjects of "co-investment" for REDD+ funds.



3.2 Coherence of forest-relevant policies

Current status

People clear and log forests because they achieve economic gains from doing so (Chomitz et al., 2006). Having said that, explaining deforestation is a highly complex exercise as each deforestation event is the result of a unique set of local contextual factors, relationships, and expectations. In general, most deforestation in the Congo basin results from conversion to agriculture. As such, reducing deforestation means, to a large degree, slowing down the expansion of agricultural land into forests, as suggested by Angelsen (2010).

Smallholder clearings are the dominant driver of deforestation in the Congo Basin and national REDD+ strategies are responsive to this. In that regard, sustainable intensification of agriculture features as a key intervention area in the countries' REDD+ policies. For instance, the DRC REDD+ framework strategy defines the role for agriculture within REDD+ as follows: "Reduce the impact of agriculture on the forest, while contributing to food security and making agriculture a pillar of the DRC's economic growth" (Kengoum et al., 2020a). This builds on the theory of land sparing and considers the high political feasibility of activities in support of agricultural intensification as the guiding theme of the REDD+ strategy: «La REDD+ c'est un outil de développement pour le Cameroun» ("REDD+ is a development tool for Cameroon"), as one high-level official in Cameroon framed it.

REDD+ policies often remain in sectoral "silos". The REDD+ preparation phase in most countries was (rightfully) institutionally anchored within one sectoral ministry, notably the environment ministry for both Cameroon and the DRC. However, REDD+ is not limited to only one sector and when more important REDD+ funds start to flow at implementation stage (phase 2), REDD+ should be anchored at a higher political level to facilitate cross-sectoral collaboration.

Therefore, for REDD+ to play a significant role beyond the preparation phase, policies and investments in relevant sectors such as agriculture, rural development, forestry and mining need to be aligned with the pro-forest principles articulated in national REDD+ strategies and/or cross-sectoral planning policies.

This alignment has not been completed in several Congo Basin countries, notably in Cameroon where six sectoral ministries with conflicting policies touch upon the REDD+ agenda. A lack of political engagement and sectoral alignment was the main reason why FCPF terminated its support of the REDD+ preparation phase. CAFI finds engagement in Cameroon difficult for similar reasons.

The Cameroonian REDD+ secretariat was created within the Ministry for Environment and Sustainable Development (MINEPDED) to ensure horizontal coordination among relevant land-based sectors. Yet, MINEPDED's leadership of the process was never fully accepted by the other ministerial departments whose interests in land and institutional authority compete with REDD+ interests (Korhonen-Kurki et al., 2016).

For example, with regard to the agricultural development strategy favoring agro-industrial development (with no consideration of forest safeguards), the Ministry of State Property and Land Tenure actively promotes the formation of land reserves ("reserves foncières") to lease out land to agro-industrial investors. Forests would likely suffer from this development, firstly through direct conversion into large-scale plantations and secondly through the livelihood activities of the displaced populations operating as laborers. This exemplifies how, in some ways, the REDD+



preparation process in Cameroon failed to leave its narrow silo. One interviewee noted that at ministerial level and below, basic understanding of REDD+ and necessary political action was neither present nor sought after by the political REDD+ coordination.

In 2020, WWF Cameroon offered to act as moderator to facilitate cross-sectoral exchanges and drive the REDD+ strategy development forward in a holistic and consultative manner. One interviewee described this as, "the wrong solution for the wrong problem" because WWF Cameroon does not have the authority vis-à-vis ministries, nor does it enjoy substantial support from donors (CAFI, FCPF). In brief, in Cameroon, Readiness Funding did not have the desired effect, mainly due to institutional incoherence and a lack of political will. As a result, the prospects for REDD+ to gain traction in the near future appear to be limited.

In the DRC, as many as 19 ministries have a stake in REDD+ and the national REDD+ strategy rests on seven thematic pillars (Kengoum et al., 2020b)¹⁷. Since engaging in REDD+ in 2009, the DRC has announced a series of policies in support of REDD+: reforms of the land tenure regime, land-use planning and agricultural policy. To date, none of these reforms have materialized, due to both political changes and a lack of finance, capacity, and political will, as identified in a recent CIFOR study (Kengoum et al., 2020a).

With the transition to the investment phase (phase 2), CAFI became a main funding source for REDD+. CAFI pushed for the elevation of REDD+ from a sectoral initiative within the Ministry of the Environment to an institution at a higher political level. The idea was to mainstream REDD+ with other land-based sectoral ministries at ministerial level. As a result, and after many negotiation rounds, the DRC national REDD+ fund (FONAREDD) was created under the auspices of the Ministry of Finance.

FONAREDD operations are currently governed by UN Development Program (UNDP) regulations and only a handful of international organizations currently registered as implementing organizations¹⁸ can directly receive CAFI funding through FONAREDD. With the DRC ranking 168th out of 180 countries in Transparency International's corruption perception index, donors such as CAFI are hesitant to transfer funds directly to government institutions. This perceived infringement of financial sovereignty hampers the political ownership of REDD+ in the DRC. However, the country is in a transition process and when national fiduciary management capacities meet international standards, the DRC's national administration will take over the management of FONAREDD. In the meantime, there is a need for FONAREDD to develop its own anti-corruption policies independently of UNDP.¹⁹

In sum, institutional problems on a strategic level lead to challenges at the operational level. Patchworks of multiple – often non-compatible – supporting approaches tend to persist. Resources tend to be spread thinly across projects rather than being focused on fewer long-term

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 $^{^{\}rm 17}$ Agriculture, Energy, Forest, Governance, Demography, Land-use planning, and Land tenure.

¹⁸ Namely, the Japan International Cooperation Agency (JICA), the Belgian Development Agency (ENABEL), the Food and Agriculture Organization (FAO), the French Development Agency (AFD), the United Nations Capital Development Fund (UNCDF), the United Nations Development Program (UNDP), the United Nations Settlements program (UNHabitat), the United Nations Population Fund (UNFPA), UNOPS, the World Bank see https://www.cafi.org/content/cafi/en/home/our-work/governance/implementing-organizations.html.

¹⁹ https://images.transparencycdn.org/images/2020_Report_GovernanceAssessmentCAFI_English.pdf.



initiatives. This "projectism", as opposed to long-term institutional development, is a recurrent problem in the Congo Basin countries.

Recommendations

National REDD+ architecture

The institutional anchoring of REDD+ in DRC and Gabon should be viewed as a potential blue-print for other countries approaching the investment phase of REDD+. Hosted by the ministry of finance (FONAREDD in DRC) and by the president's bureau (CNC in Gabon), respectively, the REDD+ agenda in both countries sits "above" the sectoral ministries.

In the case of the DRC, this anchoring at a high political level (which also meant a move away from the sectoral ministry that prepared REDD+) did not come without significant donor pressure (from CAFI). In this case, it is also not yet clear how successful the Ministry of Finance will be in overcoming sectoral competition. From a donor perspective, to achieve such high political status for REDD+ would require a sufficiently large amount of funding.

This same ministry is currently also drafting a law on strategic planning, which will force sectoral ministries to better harmonize their individual policies. If implemented successfully, this will represent a unique planning system harmonizing the six sectoral strategies that affect REDD+. The position of Minister at MINEPDED is currently vacant and there are discussions around merging MINEPDED and the Ministry of Forestry and Fauna (MINFOF). While certainly outside the sphere of influence of the REDD+ community, a merge of these ministries would likely reduce competition, enhance coordination and bring about overall positive change for the REDD+ agenda.

Decisions about the personnel deployed are of high importance for success. In a short-term perspective, Cameroon has two important human resource decisions to take: that regarding the position of the REDD+ political coordinator (the successor of retired Mr Wassouni) and, depending on available funding, that of a technical coordinator to succeed René Siwe. Also pending (since more than a year) is the final decision of the FCPF on whether to grant the (conditionally granted) additional installment for REDD+ readiness preparation.

Key point

Institutional anchoring of the REDD+ agenda at a high political level should be aimed for in countries where this decision has not taken place. For Cameroon, the REDD+ agenda should be anchored within the Ministry of Economy, Planning and Regional Development.

Multi-sectoral policy planning and implementation using a milestones approach

National REDD+ strategy documents tend to embrace the complexity of deforestation drivers, including strategic options for REDD+ to tackle these. Hence, policy planning correctly addresses the complexity of the challenge.

However, problems become apparent when it comes to formulating policies or even implementing them. This has to do, in part, with lack of reforms in relevant sectors. For instance, since 2009, the DRC has announced a number of reforms relating to land tenure, land-use planning and agricultural policy to create a REDD+-enabling environment. However, by 2019, none of



these reforms had actually materialized, due to both political changes and a lack of finance, capacity, and political will (Kengoum et al., 2020a).

A robust milestones approach could contribute to avoiding REDD+ readiness becoming a neverending story (Reinecke et al., 2020). This would involve RBPs for the achievement of political and technical milestones during the preparatory and investment phases to incentivize progress toward RBPs (phase 3) and actual emission reductions.

As noted in section 3.1, this approach is best implemented through a bilateral approach, and the donor-coalition CAFI, through its main tool the "letters of intent" (LoI), is likely the best vehicle for doing so (it already has many projects in place to that end). A good example of a milestones approach is the LoI between CAFI and Gabon. It lists a dozen concrete policy measures (e.g., implementation of a safeguards information system) pertaining to three sectoral objectives (e.g., forest governance), including due dates for their fulfillment linked to payments to Gabon.²⁰

Key point

 A robust milestone approach provides more immediate incentives to formulate and implement required policy reforms in multiple sectors. Donor coalitions (such as CAFI) or bilateral agreements are potentially good vehicles for a milestones approach.

3.3 Countries' capabilities for monitoring their forests

Current status

Forest monitoring is a key component for measuring, reporting and verification (MRV) of emissions from forests and, as such, a pre-requisite for accessing RBPs (Sandker et al., 2021). In this context, the purpose of MRV systems is to demonstrate emissions or their reduction vis-à-vis a reference level. Depending on the REDD+ activity in question, forest accounting tends to be fraught with uncertainties, making it challenging to evaluate carbon mitigation efforts in the forest sector (Yanai et al., 2020). The support for REDD+ readiness needed in many REDD+ countries has been higher and more enduring than initially expected by donor countries. Nevertheless, not all Congo Basin countries are currently equipped with functional MRV systems.

In the DRC, there was an overall higher level of coordination because the technical work on the Warsaw Framework was mostly performed by the division for forest inventory and management, a permanent division within the Ministry of the Environment and Sustainable Development. This led to a higher degree of institutionalization of REDD+ preparatory work. The FAO provided substantial technical support, both with remote sensing of deforestation and the recently completed national forest inventory.

In a parallel initiative, a national-scale carbon map initiated by WWF with German funding has been developed with acceptable accuracy based on cutting-edge LiDAR (Light detection and ranging) technology (Saatchi et al., 2017; Xu et al., 2017). The fate of this dataset is symptomatic of the patchwork of multiple projects instead of streamlined and sustained approaches paired

 $\underline{https://www.cafi.org/content/cafi/en/home/partner-countries/gabon/the-letter-of-intent-with-gabon.html.}$

²⁰ See



with a lack of coherence on the technical level: the forest inventory plots established for the LiDAR carbon map have not been integrated into the subsequent national forest inventory "because WWF did not lobby hard enough", as one interviewee put it. The expensive work on the carbon map has produced a very good product but has not contributed to institutionalizing forest monitoring capacities in the DRC.

DRC submitted a first national FRL to the UNFCCC representing only deforestation and will extend the coverage to include forest degradation in 2021. Estimating forest degradation requires significant technical capacity. It can therefore be concluded that the DRC, with significant support from donors and technical partners, now has effective monitoring capacities in place. These will likely continue to depend on international technical and financial support in the future. Nevertheless, as Kengoum et al. (2020) show, there are several estimates of both forest cover and deforestation loss, but no study has provided information about deforestation nationwide using the same methodology. Better donor coordination of the significant amounts of funding could increase payment efficiency in the future.

Gabon is the only country in Africa with a space agency (AGEOS – Agence Gabonaise d'Etudes et d'Observations Spatiales)²¹, which is designed following the example of the Brazilian space agency INPE. Therefore, Gabon certainly has the highest degree of institutionalization of remote sensing capacities. The country has also completed its first forest inventory with a carbon focus and – unlike DRC and Cameroon – has a clear roadmap in place for regular repetitions of the forest inventory in the future, as an interview with a government official confirmed. Regularly revisited (i.e., at a maximum after 5–10 years) forest inventory plots are a pre-requisite for appraising the forest carbon stock and changes thereof and hence related REDD+ activities of conservation and enhancement of forest carbon stocks.

In Cameroon, the technical personnel for forest monitoring were concentrated within the Technical REDD+ Secretariat (ST-REDD). Inter-ministerial exchange or even delegation of tasks to relevant sectoral divisions within the MINEPDED or other sectoral ministries was limited. In-country technical capacities remained limited and personnel were scarce throughout the REDD+ preparation process. The first and thus far only national forest inventory was performed in 2003–2004 by MINFOF with support from the Food and Agriculture Organization of the United Nations (FAO; Abena, 2005). In 2017, this dataset was analyzed with regard to its usability for REDD+ reporting, showing a moderate level of uncertainties and general fitness for the purpose of GHG reporting.

However, now almost 20 years after the first measurements were taken, the data is at the verge of becoming useless unless a second inventory cycle is rapidly implemented because it is becoming increasingly difficult to relate to old data (Dees 2017, unpublished). Remote sensing capacities were mostly concentrated in the currently dysfunctional ST-REDD. Hence, Cameroon today has no nationally operational forest monitoring system in place. In an effort to institutionalize operational forest monitoring activities, a new remote sensing unit has been created as recently as in February 2021, consisting of civil servants from both MINEPDED and MINFOF. This new unit is located at the Nkolbisson research campus outside Yaoundé in the vicinity of national

²¹ See https://africanews.space/ageos-is-driving-the-development-of-gabons-national-space-policy-and-its-first-satellite for information on AGEOS in a nutshell.



and international research institutes. This is a promising approach which potentially merits attention by international donors.

In all countries, several problems were identified in the process of ramping up forest monitoring capacities, applicable to all or some studied countries. First, at the recruitment stage, the formation of the national teams was partly hampered by nepotism, resulting in a lower-than-possible subsequent performance. This is notably true for Cameroon in relation to the now retired National REDD+ Coordinator.

Furthermore, the *modus operandi* of the preparation phase (funded mostly by the FCPF) has been described as a "box-ticking" procedure, where key technical work tends to rely on external consultants who can deliver results faster. State institutions and political influence tend to be notoriously unstable: committed budgets are not definitive and responsibilities are often moved around. Therefore, despite considerable capacity-building efforts in forest monitoring deployed by various institutions (e.g., University of Maryland, FAO, IRD, OSFACO etc.²²) capacities to monitor forests, or even MRV of carbon stock changes, remain precarious in the hands of a few national experts in each country. Continuity of these teams is threatened where they rely entirely on external funding (as was the case with the ST-REDD in Cameroon).

Different methodological approaches have been deployed in an RBP context to directly or indirectly monitor degradation and sequestration²³. Each comes with its own challenges in terms of data reliability and required funding. If monitoring forest degradation is challenging, monitoring forest stock enhancement is even more so because it is a more gradual process. In principle, the same approaches, tools and challenges apply to both monitoring forest degradation and sequestration (Neeff et al., 2020).

There is an extensive culture of conducting meetings and workshops across the Congo Basin. While highly relevant for institutional coordination, the time spent in these events by highly specialized technical experts lacking in the process of acquiring technical skills and applying these. Technical expertise for modern-day forest monitoring requires a significant amount of practice, which is typically acquired "on the job" and "with the hands in the code". Trainings (on targeted platforms) can provide the necessary impetus and informational workshops can provide context, but they do not replace practical experience.

Forest monitoring requirements for RBP schemes are being re-defined in 2021. The GCF Scorecard is currently being revised and the World Bank is working on revisions for its climate funding facility. So do market standards: the Verra/VCS Jurisdictional and Nested REDD+ framework (JNR) and the newly established Architecture for REDD+ Transactions and its REDD+ Environmental Excellence Standard (ART/TREES) supported by Norway and deployed in the bilateral agreement with Gabon have been revised recently.

In conclusion, the Congo Basin countries have made significant gains in recent years, but available capacities are often not integrated into national level REDD+ policies and the implementation of these. Furthermore, capabilities are still insufficient to adequately monitor more nuanced

²³ Two indirect methods through which carbon loss or gain are inferred from proxy variables: remote sensing of individual trees or patches of trees; tree harvest statistics. One direct method, which is typically the most expensive approach: Multi-year forest inventories.

²² See e.g. the 2018 progress report of Cameroon: https://www.forestcarbonpartnership.org/system/files/documents/Cameroon_FCPF-RF%202018%20Report%20Final%20French.pdf.



REDD+ activities (notably degradation, forest stock enhancement), which are of particular relevance for the region. That being said, lacking forest monitoring and MRV skills have never been the main obstacle to effective implementation of REDD+ in the Congo Basin countries.

Recommendations

Solidify gains made during the countries' REDD+ readiness phase

Well-trained, technical former staff of the countries' technical REDD+ secretariats and other institutions in charge of MRV have now mostly left and are engaged in often non-permanent occupations. There is still the potential to recruit these people for upcoming MRV activities. In this way, the multiple investments in the skills of these experts could be secured and the countries would not need to start from scratch. Highly specialized staff with adequate forest monitoring skills should be spared from participating in workshops and other time-consuming events that are not strictly necessary.

Forest inventories are expensive but key inputs to forest monitoring and carbon accounting. Where limited funding induces trade-offs, regularity of repetition cycles (10 years max.) and a coherent method are to be prioritized over data accuracy and plot density. In the near future, cutting-edge technology will facilitate (although likely not replace) forest inventories. Novel sources of data will be point clouds of the forest canopy derived from airborne (Asner et al., 2010; Csillik et al., 2019; Puliti et al., 2020) or spaceborne LiDAR (Potapov et al., 2021) combined with high resolution imagery which has become available free of charge²⁴. Against this backdrop, the recommendations of this report are:

Key point

■ Forest monitoring should be anchored within permanent institutions supplemented by (but not fully dependent on) external REDD+ funding. This comprises continued support throughout phases 2 and 3 and renewed readiness support for countries that have not yet completed phase 1. In doing so, existing academic institutions in the countries should receive more attention as they bear the potential to solidify and institutionalize gains made in forest monitoring.

Strengthen regional-scale forest monitoring capacities

One interviewee from a donor organization stated, "given the pace of forest destruction, we cannot again lose time waiting for countries' capacity building to be able to monitor their forests".

As a result, a tendency towards centralizing forest monitoring can be observed within both CAFI and the emerging new climate finance facility within the World Bank (see section 3.5 and box 2). Currently, the FAO mandated by CAFI is performing a detailed remote sensing study of the magnitude and drivers of deforestation and forest degradation in the six CAFI countries²⁵. This

²⁴ The EU COPERNICUS program releases Sentinel Satellite data; Norwegian NICFI funds access to very-high resolution imagery, see https://www.planet.com/nicfi/.

²⁵ See the FAO assessment of drivers of deforestation and degradation in Central Africa http://www.fao.org/redd/news/detail/en/c/1326830/ and email exchanges with Rémi Dannunzio.



will result in a regional-scale forest, deforestation and forest degradation mapping product where countries can adjust parameters (such as the forest definition) to better reflect national circumstances.

While some might perceive this as patronizing and an infringement of countries' sovereignties, it is true that this "guided" approach to forest monitoring would certainly enhance the accuracy, precision and timeliness of the resulting estimations of deforestation. This is particularly true for tracing small-scale and gradual processes of forest degradation and carbon stock enhancement; these two REDD+ activities are significant for the Congo Basin (see section 3.5). To enhance regional ownership, a regional player like the Central African Forest Observatory (OFAC) should be involved and act as an institutional anchor for forest monitoring in the region in the coming years. With forest monitoring being partly centralized, the focus of national institutions would shift towards implementing systematic, repeated national forest inventories.

In recent years, forest monitoring data and tools have become increasingly accessible to users from the Congo Basin. Free and open-source software tools such as the Open Foris set of tools²⁶ hosted by the FAO facilitate flexible and efficient data collection, analysis and reporting. The guidance provided by the Global Forest Observations Initiative (GFOI) – an informal partnership of countries and institutions that collaboratively assist developing countries with forest monitoring – significantly supports the advancement of good practices in the field (Herold et al., 2019).

Forest information hubs, such as Global Forest Watch, tend to attract the best available forest data with free access. With their regional or global coverage, they have the potential to deliver data very cost-effectively. One recent example is a near real-time deforestation alert system for the Congo Basin (Reiche et al., 2021)²⁷, where newly available radar satellite data allows the tracking of forest loss despite constant cloud cover. These data allow for planning law enforcement operations where deforestation occurs illegally. Regional players such as the OFAC, an initiative of multiple members of the CBFP, aims at pooling the knowledge and available data necessary to monitor the various aspects of Central Africa's forests (Mayaux et al., 2009).

Key points

- The CBFP and funders should encourage and promote regional-scale forest monitoring where ownership remains in the countries' hands. Synergies between international (FAO, GFOI etc.), regional (OFAC), and national-level institutions (relevant divisions within ministries and universities) should be identified and promoted.
- Best use should be made of existing open-access tools rather than "re-inventing the wheel" in terms of forest monitoring.
- Priorities for donors should be securing funds for forest inventories potentially enhanced and rendered more cost-effective by disruptive new technologies.

²⁶ See http://www.openforis.org/; involving the remote sensing platform SEPAL, which is also used in the ongoing work of the FAO for CAFI.

²⁷ The alerts are available via https://www.globalforestwatch.org and https://radd-alert.wur.nl.



Adapt reporting requirements

Forest degradation and sequestration are significant REDD+ activities but are hard to monitor, resulting in gross uncertainties. Most RBP programs include procedures that reduce payments to account for uncertainty in emissions estimates (i.e. payments are made for a portion of estimated emission reductions; Yanai et al., 2020).

Activity-based monitoring deploys proxy variables (e.g., logging statistics to deduce forest degradation), which facilitate monitoring in some cases. Proxy-based approaches tend to be tagged with punitive measures in RBP agreements such as the FCPF owing to their perceived unreliability²⁸.

Most funding sources and carbon standards are revising their standards in 2021, including those for monitoring. This includes the GCF Scorecard and the Methodological Framework of the FCPF as well as the VCS-JNR methodology by Verra/VCS and the TREES standard by ART. One example: TREES 2.0 features an HFLD module where deforestation trends can be demonstrated using remote sensing information from 2-year cycles. However, no Congo Basin country currently has such dense forest monitoring in place.

Environmental integrity is a key concern here. Relaxed reporting requirements should not undermine the credibility or significantly increase uncertainties of REDD+ monitoring and reporting (Sandker et al., 2021; Yanai et al., 2020). Funders watch these processes very closely as several interviewees confirmed. The recommendation of this report is therefore:

Key point

Use the currently open window of opportunity to lobby for carbon accounting requirements with the GCF and (quasi) market-based programs such as the FCPF, Verra JNR and ART/TREES. To the extent possible, the reporting frameworks should be simplified to better match monitoring capabilities in the Congo Basin while ensuring integrity of resulting carbon credits.

3.4 Reference levels: A benchmark for reducing emissions

Current status

Countries seeking payments for forest-related mitigation efforts must establish forest reference (emission) levels (FREL/FRL) to use as benchmarks for assessing REDD+ performance. FREL/FRL are usually set by calculating an historical average level of emissions and using this as a proxy for expected future emissions; however, adjustments to future developments are possible (FAO, 2017; Maniatis et al., 2019). The dynamic socio-economic context puts Congo Basin countries generally in a favorable situation to justify this adjustment vis-à-vis potential buyers of generated emissions reductions. All Congo Basin countries focus on deforestation for their FREL/FRL, generally estimating emissions based on carbon stocks per unit area and the area of land chang-

²⁸ In the FCPF Methodological framework (criterion 3.7), this takes the form of a "conservativeness factor" resulting in a higher amount of emissions reductions going into risk buffer, which is a not claimable for RBPs.



ing from forest to non-forest. Some countries (like Republic of Congo, 2018) also estimate emissions from forest degradation, and some are estimating carbon sequestration from reforestation or forest management (Neeff et al., 2020; Yanai et al., 2020).

The degree of freedom in FREL/FRL design (particularly the possibility for adjustments) varies with the targeted funding source. The UNFCCC stipulations for FREL/FRL design are fairly lose. In contrast, the Methodological Framework of the FCPF states that, "for a limited set of Emissions Reductions Programs, the Reference Level may be adjusted upward by a limited amount above average annual historical emissions", where the norm is a historical reference level. It further stipulates that the adjustment term is capped by a maximum ratio of adjusted emissions to total carbon stocks.

This being said about the rules for FREL/FRL setting under the UNFCCC, obtaining payments for these is a separate issue that is largely unresolved. The experience of the GCF – the official funding entity of the UNFCC – with REDD+ in general, and adjusted reference levels in particular, is limited. GCF board members – who decide on funding countries on a case-by-case basis – tend to see adjustments in a critical light and are demanding more stringent rules (Lang, 2020).

Carbon market schemes are also becoming more conservative with respect to integrity of emissions reductions and "hot air", i.e., payments for no actual emissions reductions. The carbon standard for jurisdictional-level REDD+ under the VCS JNR is currently under revision but will likely hold no provisions for adjusting reference levels, as one interviewee confirmed. The TREES 2.0 standard released in February 2021²⁹ does allow for limited adjustment according to a trend over the last 15 years or less. However, as outlined in section 3.3 on forest monitoring, the requirements on data sampling frequency are high and most national systems in the region could not currently comply. An overview of carbon reporting standards for the FCPF Carbon Fund and several standards for the voluntary market is provided in Table A 2 in the annex based on Chagas et al. (2020).

Congo Basin countries tend to embrace the possibility of adjusting reference levels submitted to the UNFCCC, the Carbon Fund and standards for the voluntary carbon market. However, countries' success in obtaining RBPs on the basis of these adjusted reference levels is mixed. The Carbon Fund accepted the purchase of emission reductions from both pilot programs in the DRC and the Republic of Congo. The reference level of a recently developed jurisdictional REDD+ program in DRC – the first of its kind in the Congo Basin – is awaiting validation but the adjustment term is under harsh scrutiny from independent observers³⁰. The various and at times contradicting FREL/FRL provisions made by multiple schemes raise the important and often unresolved issue of coherence across scales from national down to project level (Lee et al., 2018a).

In sum, FREL/FRL settings are, to a large extent, a matter of national sovereignty. It also is a trade-off between accounting for dynamic national circumstances and making a convincing case for donors and other actors on the carbon markets to purchase emissions reductions created through this channel.

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²⁹ https://www.artredd.org/wp-content/uploads/2021/01/TREES-2.0-Public-Consultation-Version-Feb-2021.pdf.

³⁰ See https://verra.org/wp-content/uploads/2020/04/VCS-JNR-Baseline-Description Tshopo 9MAR2020.pdf



Recommendations

Appraising the potential of current FREL/FRL provisions for HFLD countries

Countries can adjust reference levels to account for national circumstances. The adjustment potential is, at times, significant. There is no cap to adjustments for FREL/FRL under the GCF, although the set of criteria defined in the GCF Scorecard is currently being revised. The Carbon Fund of the World Bank does contain a cap but significant adjustments are nevertheless possible, as a calculation for Southern Cameroon shows (Pirker et al., 2019). The proposed TREES 2.0 allows for trend extrapolation only, but even with this restriction, significant adjustments are possible, as one interviewee stated.

Justifications for adjustments vary. The strongest scientific evidence for adjustments relates to inert societal megatrends of demographic change and integration in the global market economy. These approaches also tend to shed light on the drivers of deforestation, hence facilitating REDD+ strategy formulation. Lack of availability and precision of the underlying data is often problematic (Megevand et al., 2013; Mosnier et al., 2015).

Projection of deforestation trends of the recent past into the future is another way of adjusting reference levels. This method also potentially allows for significant adjustment of the reference level. However, many different projection outcomes can be generated from the same historical data, depending on the assumed underlying data relationship (e.g., linear vs. exponential trends). To address this ambiguity, TREES 2.0 proposes an online tool³¹ for candidate jurisdictions to fill in their data and prescribe one type of trend projection. A thus standardized approach to adjustments should be welcomed as it may enhance donors' trust in the reference levels created.

"Planned deforestation" is sometimes used as an argument for adjusting a reference level. The Republic of Congo set a precedence for using large-scale planned deforestation as an argument to adjust its reference level for RBPs under the FCPF. It did so by leasing out 180,000 ha of mostly dense forest area as a concession to a company for oil palm development on part of this area. The country then used this as part of its argument for why the reference level submitted to the FCPF needed upwards adjustment; the promised REDD+ activity was to downsize the area of the concession and avoid HCV/HCS areas for oil palm development³². The hence adjusted reference level was formally accepted by the FCPF.

Cameroon may be tempted to see this as a potential blueprint solution for receiving financing for the Ebo forest and other thus far untouched areas. The basis of the demonstrated threat to the Ebo forest is the official act of gazetting (UFA 07-005 for the case of the Ebo Forest) parts of the forest area as a forest concession.

No matter which approach – modeling, trend projection or "planned deforestation" – raising a baseline to generate more carbon credits raises issues of coherence and comparability, and ultimately reduces the credibility of REDD+ commitment. This is often considered problematic by funders. Namely, in bilateral setups reference levels perceived as inflated have hampered progress (Angelsen, 2017; Schroeder et al., 2020). Governments of Congo Basin countries should

³¹ See https://artredd.shinyapps.io/art hfld tool/.

³² See the ER-PD of the Republic of Congo: https://www.forestcarbonpartnership.org/system/files/documents/Final%20ERPD%2018%20Dec%202018%20French.pdf.



weigh carefully the magnitude of a reference level and potential for adjustment against the level of funder engagement and the timeliness of funding agreements.

Key point

Reference levels serve the main purpose of attracting RBPs. Current frameworks do hold provisions for significant adjustments of countries' reference levels to future developments in HFLD countries. Robust approaches such as historical reference levels or trend projection enjoy more trust by funders.

Streamline funders' baseline approaches

Various funding sources are currently (re)defining their approaches to FREL/ FRL setting and the methodologies vary greatly.

The World Bank (through its technical partner Winrock International; Pearson et al., forthcoming) is looking into defining "stable forests" and their benefits, which Funk et al. (2019) brought to the attention of policy makers. In the absence of an operational definition of stable forests, the Winrock team proposes a GIS-based approach, where stable forests are those located at 1 km or more from a forest disturbance. Viewed through this lens, stable forests are lost at a much greater rate (38% over 20 years in a pilot in the Republic of Congo) than all forests (7% for the same pilot). Loss of stable forest can mean conversion to other land uses or occurrence of small patches of forest loss, leading to forest fragmentation and loss of carbon stocks (Shapiro et al., 2021, 2016).

The ART/TREES 2.0 is proposing a flexible approach to HFLD definition, weighing forest area and deforestation rates. The actual FREL/FRL adjustment term is robust yet leaves significant margin for FREL/FRL adjustment. VCS/Verra has multiple provisions in place, depending on the project level.

Meanwhile, it remains unknown if and how compliance with various carbon standards (ART/TREES, VCS/Verra, FCPF methodological framework) will help to qualify automatically for RBPs from the GCF. One intereviewed expert therefore recommended that countries wait for the publication of the new GCF Scorecard (including its methodological requirements) before submitting new reference levels to the UNFCCC. In light of this, the recommendations of this report are:

Key points

- There is a window of opportunity for CBFP members and beyond to engage actively in the consultation processes regarding the design of FREL/FRL provisions in RBP payment schemes on all levels. They should lobby for the case of HFLD countries to make sure the interests of these are represented adequately.
- The multiple approaches of different funders to remunerate the benefits of standing forests should be aligned to avoid confusion and limit transaction costs.

This approach should be considered complementary to UNFCCC for countries/regions where REDD+ implementation is facing challenges – namely HFLD countries or the Congo Basin.



Compensation of efforts – a milestone approach

Congo Basin countries tend to face challenges obtaining RBPs under REDD+ (Phase 3). As noted in section 3.1, this is related to stalled reforms in relevant sectors.

A robust milestones approach could help to avoid a situation where REDD+ readiness becomes a never-ending story (Reinecke et al., 2020). This would involve RBPs for the achievement of political and technical milestones during the preparatory and investment phases to incentivize progress toward RBPs (phase 3) and actual emission reductions.

A National Investment Framework, i.e., a detailed study of potential sectoral entry points for interventions, is the basis for subsequent sectoral objectives. Each objective is associated with time-bound milestones, whose independent verification will trigger a new tranche of disbursement. Reports on all milestones should be publicly updated on a regular basis.

Key point

 A robust milestone approach with financial incentives could be considered for countries during their readiness and investment phases. Donor coalitions (such as CAFI) or bilateral agreements are potentially good vehicles for a milestones approach.

3.5 Highlighting the Plus in REDD+

Current status

A considerable proportion of Congo Basin forests sequester more carbon (through forest growth) than they emit (through deforestation, degradation and natural mortality). These forest areas are net carbon sinks (Harris et al., 2021). Gabon in its Nationally Determined Contribution (NDC) reports that its forests are a significant net carbon sink, far outweighing the country's emissions from other sectors (République Gabonaise, 2015). The same situation could likely be found in other Congo Basin countries if carbon accounting would cater for this. However, most policy attention and funding thus far has been focused on reducing deforestation and (to a lesser extent) on forest degradation. These two activities are covered in the preceding section 3.4 on reference levels. Enhancement of forest carbon stocks and sustainable forest management has received less attention as part of REDD+ implementation.

The IPCC provides little guidance on defining the Plus activities (i.e. conservation, sustainable management of forests and enhancement of forest carbon stock; Lee et al., 2018). A glimpse at countries' reports to the UNFCCC shows that there is a much variation in how countries label removals from remaining forest land, calling it either enhancement, SFM, conservation or a combination of these (Lee et al., 2018b). Other ecosystem services rendered by forests are treated as co-benefits with only comparably little potential to receive payments.

Stable forests – those not already significantly disturbed nor facing predictable near-future risks of anthropogenic disturbance – make up a significant portion of biomass currently stored in global forests (Funk et al., 2019). Importantly, this constitutes "irrecoverable carbon", i.e. carbon that is vulnerable to release upon land use conversion and, once lost, is not recoverable on time-scales relevant to avoiding dangerous climate impacts (Goldstein et al., 2020). The role of stable forests is reinforced by carbon stored in the soil, including recently discovered peatlands in the Congo Basin (Dargie et al., 2017). This being said about stocks, the Congo Basin forest is the only



remaining tropical forest biome clearly acting as a net carbon sink, worth around 610 Mt CO₂ per year (Harris et al., 2021). Box 1 outlines the relevant terminology around "stable forests".

Box 1: Forest semantics – Stable forests, Intact forests and high forest low deforestation (HFLD)

The term HFLD was coined and defined in an academic paper by da Fonseca et al. (2007) and has become politically relevant with the discussion of reference levels where only HFLD countries may adjust these based on "national circumstances". The UNFCCC has not defined HFLD and different donors treat HFLDs slightly differently (Maniatis et al., 2019). HFLD countries, hosted by Surinam, regularly gather in the "Krutu of Paramaribo" to lobby for their case with the international community³³.

"Stable forests" – referring to those forests that are not already significantly disturbed or facing predictable near-future risks of anthropogenic disturbance – is the most used scientific term. A GIS-based working definition is proposed by Winrock for the World Bank: stable forests are those located >1 km from a forest disturbance.

The concept of "intact forests" is more restricted and specific to what a specific group of researchers has mapped as being intact, i.e., with no visible roads or other signs of human footprint³⁴. This definition notably excludes certified logging concessions whose skidding road network is usually denser than that of non-certified concessions, although it is usually of little persistence (Karsenty, 2019; Kleinschroth et al., 2019a). The FSC-certification framework demands that intact forests within forest concessions are spared from logging (Kleinschroth et al., 2019b).

Considering individual patches of stable forests within a landscape of various land uses provides more flexibility in this sense. We anticipate that the term "stable forests" will become the new norm; however, it needs careful and unambiguous prior definition to be fit for policy deployment.

International climate policies have the scope to address the needs of stable forests. For instance, the Parties to the Paris Agreement have reaffirmed their commitment to 'take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases', which include stable forests. Yet, national and international activities have tended to focus on areas of recent forest loss and near-term threats of anthropogenic disturbance.

A recent review of countries' REDD+ submissions to the UNFCCC and the Carbon Fund of the FCPF showed that almost 70% of the submissions included removals (from forest stock enhancement) and only one county included conservation of forest stocks. Translated into claimed emissions reductions, however, as little as 8% and 0.5% were associated with carbon removals and carbon stock enhancements, respectively (Neeff et al., 2020).

The quality of national-scale data for carbon stock enhancements in existing forests tends to be insufficient to access RBPs in most tropical forest countries (Skutsch et al., 2017). Currently, the available data in Congo Basin countries will, in many cases, not suffice to reliably prove carbon

³³ See www.hfldclimatefinance.com.

³⁴ See http://www.intactforests.org/.



removals with the necessary accuracy for RBPs. In this sense, similar methodological issues persist as with tracking forest degradation or forest stock enhancements in existing forests.

Generating reliable proof of carbon stocks, and carbon enhancement in standing forests in particular, requires elevated forest monitoring and sophisticated MRV capacities, which are currently rarely present in the Congo Basin (see section 3.3). Doing so requires both fine-scaled remote sensing that is able to detect small closings in the canopy and a systematic, repeated forest inventory system at national scale. In a similar situation to carbon stock enhancement, Gabon is likely the only Congo Basin country currently disposing of these skills.

In sum, stable forests play an important role in the global climate system but this has so far received only little attention under REDD+ in the Congo Basin.

Recommendations

Recommendations listed here deal with enhancing information, data and perceptions of stable forests. These are the pre-condition and complement REDD+ financing options to enhance the role of stable forests as outlined in section 3.6.

Lobby for the new paradigm of conserving stable forests

"It's about ideas and people", one GIZ official said. Therefore, the CBFP should take a leading role in effectively communicating on the role of stable forests. Drawing on Funk et al. (2019), we present four common misconceptions related to stable forests. They help to explain why they have received relatively little attention in the past. We also outline ways to tackle these misconceptions.

First, there is a perception of competition for funding between stable forests and those threatened by clearing. This does not need to be the case if incentive structures allow for flexible approaches (see the following section on structuring incentives). Once cleared and reforested using natural regeneration, it takes around 150 years for the Congo Basin forest to reach similar biomass levels as in a mature forest (Deklerck et al., 2019).

Second, as outlined in section 1.1, the concept of *additionality* is disadvantageous for the Congo Basin countries. However, as Funk et al. (2019) argue, requirements and expectations regarding additionality may no longer be as relevant under the Paris Agreement, in which protection of existing sinks and reservoirs of carbon can be recognized as a contribution (Article 5 of the Paris Agreement). Following this line of argumentation, the consecutive REDD+ financing mechanisms should also show more flexibility with regard to their provisions vis-à-vis additionality.

Third, as outlined in section 3.4, countries with significant portions of stable forests (including both Congos and Cameroon) have used projections and upward adjustments or reference areas that imply that higher levels of emissions are very likely in the future, in an effort to make such areas eligible for finance under the REDD+ mechanisms. The effect has been to set the expectation that emissions will increase, rather than focus on protecting the stability of existing forests. Changing the approach would also necessitate shifting the underlying narrative away from halting deforestation.



Finally, to address the data gaps related to the conservation of forest stocks, robust assessment of the contribution of stable forests to climate change mitigation would enable improved accounting of the GHG removal potential of forests and facilitate adoption of policies and incentives to conserve stable forests.

Key points

- The sequestration function of standing Congo Basin forests is significant but has received little attention in the past as compared to avoiding deforestation.
- It should be made clear that 1) there is no competition for funding between stable forests and those threatened by clearing; 2) the additionality concept should be reviewed; 3) the focus for HFLD countries and regions should be on protecting existing stable forests rather than projecting future deforestation, and 4) existing data gaps regarding the functions of stable forests should be closed.
- More financial resources should be made available to raise the profile of stable forests in the debate.

Focus on "plus activities" in REDD+

There might be scope for increasingly highlighting the role of standing forests and their co-benefits. When standing forests are cleared, they emit the standing carbon stock and stop sequestering carbon in the years after clearing. Countries can account for this foregone sequestration. The practical problem is that foregone carbon removals are typically very small compared to the emissions from deforestation, which is why they are often omitted.

Re-defining the scope could help here: stable forests can be considered a separate stratum in countries' MRV systems, and high loss rates (i.e., conversion of stable forest into managed forest) can be demonstrated. In this case, the foregone emissions component can also gain importance in comparison to "normal" deforestation. The ongoing technical study mandated by the World Bank sets the precedence for this approach (Pearson et al., forthcoming in March 2021) and countries could report foregone sequestration.

The grand idea of the World Bank for incentivizing conservation of stable forests is to establish a connection between the UNFCCC and the Convention on Biological Diversity (CBD). This would mean packaging "conservation credits" of multiple ecosystem services including carbon sequestration, conservation of biodiversity and hydrology, and production of non-timber forest products (NTFPs). However, given the long and complicated negotiations around REDD+, such a different approach is currently out of reach.

There might also be increasing scope to adapt REDD+ to sink conditions as suggested by Skutsch et al. (2017). At a technical level, the CAFI secretariat is currently discussing rewarding Congo Basin countries for net removals. It is considering a triple baseline approach to define eligible HFLD countries involving three conditions:

- The current carbon stocks must be equal to or higher than past carbon stock
- Carbon removals must be at least as high as emissions
- Current deforestation must be equal to or lower than historical deforestation



A certain share of eligible countries' net removals would be rewarded by CAFI with a payment per ton removed. The actual share of net removals eligible for payments is still under debate; it might range from 1% to 10% of reported net removals. Among the Congo Basin countries, Gabon is the number one candidate for this setup. Other countries such as the Republic of Congo and Equatorial Guinea might also be eligible whereas Cameroon and DRC, with their recent spike in deforestation, will likely not be eligible.

If the reference level logic in the past created a clear incentive for countries to project higher deforestation in the future, this new provision could change the narrative in favor of conserving existing carbon stocks. Open questions remain regarding the details of this approach, notably persisting challenges with measurement and accounting of the Plus in REDD+ (Lee et al., 2018b; Skutsch et al., 2017).

Accounting for carbon removals in standing forests can also create new economic opportunities in logged-over forests as they could continue to generate a steady income for the country. This would provide an alternative to converting them to another land use such as oil palm plantations. As written above, this action would require significant improvement of existing monitoring and MRV systems in the countries.

Several problems with this approach should be noted. First, carbon revenues per se barely enhance the competition of concession forestry vis-à-vis other land use types (Lescuyer and Ngouhou, 2014; Ndjondo et al., 2014; Rossi et al., 2017). Second, there is a potential for gaming where forests are quickly logged over before they transition into the REDD+ regime. Finally, tracking carbon stock enhancement requires a dense network of forest inventory plots plus advanced remote sensing techniques. Currently, Gabon is likely the only country in the region that possesses both (see chapter 3.3).

Finally, alliances with scientific networks of intact forests (e.g. the African Tropical Rainforest Observation Network) and managed forests (e.g. the Tropical managed Forests Observatory³⁵) should be strengthened to enhance the evidence for and confidence in the sequestration function of stable forests.

Specific recommendations are:

- Funders such as the FCPF and CAFI are increasingly considering financially rewarding the benefits of standing forests.
- There is increasing scope for including "Plus activities" (actual or foregone sequestration, sustainable forest management, carbon stock conservation) focusing on stable or managed forests.
- Alignment among funders' approaches would be beneficial for recipient countries while reducing transaction costs.
- More needs to be done to support Congo Basin countries to estimate removals and create consistent time series that can be used to measure the carbon performance of stable forests. More can also be done to develop consistent methods to account for removals from forests.

³⁵ These resources are accessible online: AfriTRON: www.afritron.org; TmFO: https://tmfo.org/.



3.6 Financing approaches

Current status

The ability of REDD+ to make a significant contribution to mitigating global climate change through avoiding deforestation in the tropics hinges largely on financial efficiencies. The reason for this is that REDD+ essentially aims to use financial transactions to incentivize developing countries by compensating them for verified forest-related carbon emission reductions (Carodenuto and Cashmore, 2019).

Multiple sources and forms of funding for REDD+ exist. REDD+ funding in the Congo Basin is still dominated by international grants and domestic resources have been particularly scarce during the readiness phase (Johns, 2015). To date, most funding has been concentrated on preparedness and investment activities in preparation of the strategy papers that will facilitate the REDD+ mechanism becoming established across its various levels of intervention.

Launched with the 2015 Paris Agreement, the Green Climate Fund (GCF) is the official financing entity of the UNFCCC, envisaging to provide large amounts of funding for environmental and climate mitigation and adaptation activities. New impetus for the GCF arises from major donors such as the newly installed US administration (Busch, 2020). In principle, it also supports REDD+ across all three phases.

However, the modalities to link results with final payments (the GCF Scorecard) are only being reviewed and elaborated in the first half of 2021, involving one interviewed independent expert. It is to be noted that, until now, Central African countries have not accessed GCF funds for REDD+. Thus far, Rwanda is the only successful Congo Basin recipient of GCF funding and this concerns an adaptation project (Eba'a-Atyi et al., 2019; Favada et al., 2019). Several reasons exist for this quasi-absence of the GCF from the Congo Basin, the most prominent being timing and the effort required to apply for GCF funding. The GCF only became operational in 2015 when Congo Basin countries had already engaged in other funding formats. The funding application process takes about one year (plus 5–6 months of verification by the GCF) and application documents of around 1000 pages must be submitted. These application documents need to respond to six investment criteria and notably focus on safeguards and socio-economic aspects.

Nevertheless, the GCF is a viable source of funding, particularly for the investment phase³⁶. Among all sources of funding for RBPs (phase 3), the GCF is considered the most accessible in technical terms: the basis for RBPs is the national FREL/FRL submitted to the UNFCCC and technical requirements such as those relating to data accuracy are significantly less stringent than is the case in other RBP finance mechanisms, as one interviewed independent REDD+ expert noted.

Multiple funders engage at different stages of REDD+. In the early phase of REDD+, both Congos (but not Cameroon and Gabon) benefitted from the financial support of UN-REDD. The FCPF of the World Bank through its Readiness Fund (for REDD+ preparation; initiated with USD 400 million globally) and the Carbon Fund (for subsequent RBPs; with committed funding of USD 900 million) was one of the major sources of readiness funding in Central Africa during the last dec-

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³⁶ See https://www.greenclimate.fund/sites/default/files/document/gcf-brief-redd 0.pdf.



ade. The FCPF had encouraged participating countries to develop jurisdictional REDD+ pilot programs such as that in DRC – the first one to be approved by the Carbon Fund board. Emissions reductions from these are purchased by the FCPF Carbon Fund following the stringent requirements of the FCPF Methodological Framework³⁷. Table A 3 in the annex from the forthcoming *Etat des forêts* report by OFAC lists the FCPF funding provided to countries, particularly during their readiness phase.

The Central African Forest Initiative (CAFI) is a multi-country donor coalition focusing on six Congo Basin countries³⁸, where the DRC is and will remain the main beneficiary due to the large forest area located within its national borders. It does not evaluate countries against one framework like the FCPF but rather disburses funding based on the achievement of country-specific policy and programmatic milestones laid out in letters of intent (LoI).

For now, CAFI does not disburse funds directly to the countries. Only few international organizations³⁹ can apply and receive CAFI funds in the interests of preventing corruption. This is planned to change, and more financial autonomy will be handed over to the countries once national financial institutions have implemented adequate fiduciary frameworks. In DRC, where CAFI engagement is most advanced, the fiduciary architecture of REDD+ funding is centered on FONAREDD. FONAREDD is a nationally managed fund where national and international organizations can apply for direct access to funds and a piloting committee presides over the finances whereas the environment ministry decides on the application. Figure A 2 in the annex holds a graphical representation of the FONAREDD structure, as presented by Mr. Victor Kabengele (previously REDD+ coordinator, today Ministry of Finance) during a webinar in November 2020⁴⁰.

Donor funding tends to be vulnerable to political fluctuations, often related to economic crises. It is therefore advisable for Congo Basin countries to hedge themselves against the risk of defaulting funding streams by engaging with multiple potential funders. An overview of sources of finance for the three phases of REDD+ is provided in Figure 5. It should be noted that CAFI as a key funder for Congo Basin countries is missing from this figure.

³⁷ This comprises a set of indicators detailing and applying in practice the Warsaw Framework, see https://www.forestcarbonpartnership.org/carbon-fund-methodological-framework.

³⁸ These are Cameroon, Central African Republic, Republic of Congo, the Democratic Republic of the Congo, Equatorial Guinea and Gabon.

³⁹ Namely, the Japan International Cooperation Agency (JICA), the Belgian Development Agency (ENABEL), the Food and Agriculture Organization (FAO), the French Development Agency (AFD), the UN Capital Development Fund (UNCDF), the UN Development Programme (UNDP), the UN Settlements programme (UN-Habitat), the UN Population Fund (UNFPA), UNOPS, and the World Bank. See

https://www.cafi.org/content/cafi/en/home/our-work/governance/implementing-organizations.html.

⁴⁰ Slides and recordings of the webinar "Analyser et transformer la REDD+ en RDC can be accessed online: https://www.cifor.org/event/analyser-et-transformer-la-redd-en-republique-democratique-du-congo-rdc/.



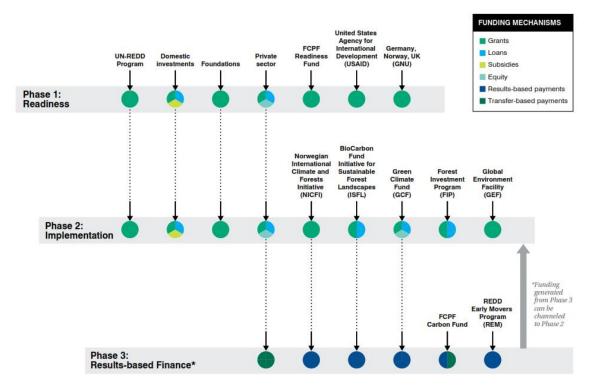


Figure 5: Finance sources for REDD+ phases, split by funding type.

Source: Luan and Silva-Chávez (2018)

Private sector involvement in REDD+ is increasing. However, the business case for REDD+ is still not very firm and private companies investing in REDD+ belong to an "early mover group" spurred by corporate social responsibility reasoning rather than a solid business case. The investment climate in most Congo Basin countries is still very unfavorable (World Bank, 2020), which also applies to REDD+ projects with private sector involvement. Risks related to land tenure, carbon ownership, and nesting rules for carbon credits – which companies feared may lead to loss of carbon rights generated by private projects nesting in jurisdictional/national REDD+ programs – make REDD+ investment less attractive than other investments (Atmadja et al., 2018). Imperfect forest monitoring systems (see section 3.3) and struggles in defining economically viable and credible reference levels (see section 3.4) potentially put Congo Basin countries at a disadvantage compared to other world regions. In addition, for the last decade the voluntary carbon market has, until recently, been very ephemeral and practically dormant (Forest Trends, 2020). These framing conditions should be kept in mind when discussing the rise of carbon off-setting projects in the Congo Basin.

Interviewed experts noted that RBPs might not be a silver bullet solution for the Congo Basin countries due to the overall low level of governability (see section 3.1); however, there should be more thinking about how to invest in an intelligent way.

In sum, whereas funding for REDD+ in the past has come from a limited number of sources, potential funders need to become more diverse as countries reach the investment and RBP phases of REDD+.



Recommendations

Bilateral and multilateral collaboration partnerships

Multilateral funding sources such as the GCF are the norm and tend to apply a one-size-fits-all approach that allows for the appraisal of the multitude of countries' situations. Bilateral approaches can be very effective in situations requiring specific assistance across REDD+ phases 2 and 3. A positive example is the Early Movers program rewarding pioneers of forest protection and climate change mitigation in South America (Reinecke et al., 2020).

The bilateral agreement between Norway and Gabon is discussed in more detail in section 3.1. However, Gabon is not the first subject of these kinds of agreements and conclusions can be drawn from similar arrangements between Norway and a number of HFLD countries (Angelsen, 2017). One interviewee said that Norway in most cases expected that more donor countries would follow their pioneering agreements with specific countries, which has not yet eventuated. Schroeder et al. (2020), in analyzing donor policies of Germany, the UK and Norway, finds that bilateral collaborations have been more difficult to carry out than anticipated, both for political

bilateral collaborations have been more difficult to carry out than anticipated, both for political and technical reasons, e.g., there has been a decisive focus on quality of engagements after realizing the invaluable advantage of having donor country staff in the recipient country who are able to liaise directly with their counterparts, hence creating stronger trust relationships.

Deploying more staff to the recipient country proved effective in strengthening day-to-day exchange and better mutual understanding of expectations and challenges. However, frequent staff turnover on both sides partly undermined these efforts. Technical challenges have occurred around inflated baselines, MRV and the realization that performance-based approaches do not work in all countries (Angelsen, 2017; Schroeder et al., 2020).

The clear advantage of bilateral agreements is in the potential to tailor agreements specifically to the situation of a donor-recipient country tandem. Clearly demonstrated political will is a precondition for this. The number of bilateral agreements (including donor coalitions) might increase in the coming years; a recent agreement between Switzerland and Peru under Article 6 of the Paris Agreement might be indicative in that respect (BMU, 2020).

Key point

Owing to their higher degree of flexibility, bilateral funding approaches can be more effective than multilateral approaches in cases where forest countries show clear political will and need tailor-made support.

Local systems for payments for ecosystem services

National or local-scale payments for ecosystem services systems (PES) might be of potential relevance as intermediary funding preceding expected REDD+ payments. PES systems have been considered for some time and CAFI is currently considering launching a national PES program in DRC. In this way, they can pilot phase 3 REDD+ schemes at smaller scale. One interviewee from academia has proposed three key considerations and guiding principles for local PES schemes:

- 1) A PES system represents a transfer from urban to rural areas,
- 2) The taxes levied should be socially acceptable and match the readiness to pay, and
- 3) An exit-strategy needs to be integrated from the very beginning, i.e., considering what happens when payments cease.



One exemplary financing source, fulfilling all three criteria would be a very small domestic tax on a centrally distributed mass product. With fuel prices being an overly sensitive issue in most Congo Basin countries, the interviewee proposes levying this tax on pre-paid phone credits. Using the financial fluxes as a means of investment in long-lasting environmental assets (such as agroforestry systems) can solidify the effects of the payments beyond the end of the PES scheme (Karsenty et al., 2017). A successful example of a similar setup is in Costa Rica where a similar domestic tax contributes to the national fund for PES. It should be noted that even in the Costa Rican case, the tax only funds about one third of the PES fund with the remainder being supplied by the regular state budget and the German funder KfW in equal terms. Upholding state contributions to PES schemes beyond donor involvement will be a major challenge in the Congo Basin.

A functioning system exists in Côte d'Ivoire, where the cocoa trader and chocolate producer Mondelez and a set of state actors have implemented a PES scheme involving cocoa farmers (CocoaLife, 2018). In the Congo Basin, this approach could be mirrored with the emergence of the zero-deforestation cocoa initiative being piloted in Cameroon (see section 3.8). PES could be used to compensate farmers for foregone revenues accrued by low productivity / high carbon stock agroforestry systems.

Effective benefit sharing mechanisms are key to the success of local PES schemes just as they are for REDD+. Experiences from recent comparative studies (Bertzky et al., 2021; World Bank, 2019) should be considered in designing these.

Key point

Examples of functioning national PES schemes are rare, but they do hold potential as intermediary measures. The emerging zero-deforestation cocoa initiative is a potential source of funding. Very small taxes on consumables could represent a domestic source of funding, complemented by donor funds. PES schemes need to be carefully designed to deliver permanently.

Greening sovereign debt

COVID-19 and the subsequent economic downturn has put many developing and emerging markets on the path to a sovereign debt crisis. This comes on top of a looming sovereign debt situation in the Congo Basin countries that has been evolving since the structural adjustment programs that took place in the late 1990s (see Karsenty, 2017) combined with low petrol prices over the last five years. There is a compelling opportunity to deploy a sovereign debt instrument (a debt for nature swap) that links the cost of sovereign debt with success in protecting or enhancing a country's natural capital. Releasing sovereign debt could therefore contribute to raising funds for the investment phase (phase 2) of REDD+.

The debt crisis of Latin American states in the 1980s gave rise to the idea of nature swaps. Over a 20-year period from the late 1990s onward, debt-for-development swaps amounted to just over USD 6 billion (Leonard et al., 2020). The first debt swap for REDD+ worth USD 28.5 million was that between the US and Indonesia to fund the WWF-led Heart of Borneo project (WWF, 2011). For the Congo Basin, Leonard et al., (2020) suggest the DRC as an ideal candidate for debt swaps: the country carries sovereign debt worth USD 9.5 billion and its NDC is fully conditional upon international support. In that regard, the releasing of a portion of this debt could partly fund the implementation of the NDC.



Leonard et al. (2020) find that the GCF has the potential to become an important institution in the promotion of debt-for-climate swaps. The idea is timely: since petrol prices have dropped during the last decade, the oil-rich Congo Basin countries (notably DRC, Gabon, Republic of Congo) have faced increasing difficulties in balancing their state budgets. Multiple challenges persist with this approach, the most notable being that neither Germany, nor the UK or Norway, hold significant debt with Congo Basin countries whereas China does (Ross, 2020). The openness of China to debt-for-nature swaps is unclear but might be fostered by China hosting the CBD COP in 2021. Provided that the rules around emissions reductions transfers in Article 6 of the Paris Agreement are clarified, China could also be interested in obtaining credits for such swaps moving forward (Simmons et al., 2021).

A related idea is the issuance of "nature performance bonds" (NPBs). An NPB complements traditional debt instruments, which collect interest until a fixed maturation date, with a performance scheme focused on measurable economic, nature and climate outcomes. Under the terms of NPB, issuers receive relief on both interest and principal as they achieve agreed nature-based outcomes, such as protecting forests and restoring wetlands. There would be no restriction on the use of proceeds, although a portion could be invested to achieve the committed nature performance outcomes. They would incentivize REDD+ performance by offering a reduction in coupon payments and the potential for a principal adjustment on full delivery of the targeted forest outcomes (F4B Initiative, 2020; Gillespie and Ritchie, 2021).

Key point

 Since Congo Basin countries carry hardly any sovereign debt with major REDD+ donor countries, a climate diplomacy approach is recommended vis-à-vis debt-holding countries to lobby for nature swaps or other means of greening sovereign debt.

Greening "grey" funding streams

There are substantial amounts of funds circulating in the land-based sectors and they could partly be put to use to benefit Congo Basin forests, notably through phase 2 of REDD+. This would mean "greening" the hundreds of billions of Central African francs spent annually on business-as-usual agriculture in the Congo basin countries and could increase productivity in agriculture and forestry sectors without sacrificing the countries' forests. Conceptually, this draws on the land sparing theory outlined in sections 3.1 and 3.2.

A blueprint could be Côte d'Ivoire where the government has recognized this opportunity and is developing a National REDD+ Strategy and Investment Plan to implement zero-deforestation agriculture and forest cover goals. To that end, the EU REDD Facility has mapped the landscape of potential REDD+ finance (Falconer et al., 2017)⁴¹.

The mapping identifies the nature and volume of domestic and international public finance that contributed to limiting deforestation and encouraging sustainable land use in Côte d'Ivoire in

⁴¹ The EU REDD Facility has developed an open access finance visualization tool: https://landusefinance.org/.



2015. It also provides a baseline against which to measure progress towards the levels of investment required to drive sustainable agriculture and reforestation. Lastly, it also identifies opportunities to increase finance available for implementation of the National REDD+ Strategy.

To summarize: much remains unknown and is currently being developed. Also in Côte d'Ivoire, the idea has not yet gone beyond concept stage and mapping potential funding streams. To actually "green" these funding streams, substantially more coherence of sectoral policies is needed, as detailed in section 3.2. The recommendations to the CBFP in this context are:

Key points

- The concept of greening of regular finance is still not very mature and has rarely been implemented in practice. As a starting point and to complement the OFAC study (Eba'a-Atyi et al., 2019) on financial flows to forest protection, perform a study of potential REDD+ funding flows from the regular economy for the Congo Basin countries.
- Enhanced coherence across sectoral policies is key to implementing greening of financial flows.

Enable, support and inform projects for the voluntary carbon market

In this context and against the backdrop of the Fridays-for-future movement, more and more private companies (e.g., Apple, Microsoft, Shell, TOTAL) are looking to offset parts of their emissions through REDD+ and other natural climate solutions⁴². For instance, the oil and gas company TOTAL recently announced plans to invest USD 100 million per year in nature-based solutions globally, including REDD+ (TOTAL, 2021). These investors are also discovering the Congo Basin for their offsetting initiatives that are taking the shape of jurisdictional-scale carbon projects developed according to carbon standards such as Verra/VCS⁴³.

The question of applicable carbon standards is relevant in this context. With carbon being an intanglible good, standards assure that associated emissions reductions actually exist and that they have been produced according to a certain scientific rigour and respect for social and biodiversity safeguards. Both major market standards for jurisdicational-scale REDD+, ART/TREES and VCS/Verra, have high requirements for data quality, which tend to be at odds with underdeveloped MRV systems in the Congo Basin.

Under ART/TREES, countries and subnational jurisdictions can generate verified emissions reduction credits. ART/TREES has specific provisions aimed at rapid upscaling of the emissions reductions commitment to national scale. In that sense, it is well designed for a country like Gabon and other small countries that have control over their territory. In contrast, bigger Congo Basin countries are likely to have difficulties applying REDD+ across the entire territory within a few years time. ART includes a HFLD module allowing a limited adjustment of the reference level based on trend projection. The Verra/VCS family of standards tend to have high requirements for data accuracy. They are applicable to multiple scales, which facilitates small-scale piloting,

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⁴² See the annual state of the voluntary Carbon market (https://www.ecosystemmarketplace.com/carbon-markets/) and a recent UNIQUE study for the German Alliance for Climate and economic growth (https://allianz-entwicklung-klima.de/).

⁴³ See e.g. a proposed jurisdictional-scale REDD+ project for the Tshopo province in DRC.



and some standards have provisions for HFLD countries although the currently revised jurisdictional-scale standard (VCS-JNR 4.0) will likely not do so.

The emergence of multiple standards will allow countries and sub-national jurisdictions to choose and easily switch back and forth between standards and funders. The recent developments in Peru might be exemplary for this development: Peru cancelled its emissions reductions purchase agreement with the FCPF (Lang, 2021) whereas private sector REDD+ projects are on the rise (Forest Trends, 2020). This might indicate that national or regional governments expect to gain more from the voluntary carbon market than from the Carbon Fund of the FCPF. It remains unknown if and how compliance with various carbon standards (ART/TREES, VCS/Verra, FCPF Methodological framework) will facilitate qualifying for RBPs from the GCF. Table A 2 in the annex lists critical issues relating to various carbon standards.

As the voluntary carbon market continues to develop and corporate players enter the market, one should remain aware of emerging struggles, particularly carbon ownership. One fundamental question remains unresolved, "Who can claim participation in REDD+ and voluntary carbon market projects?" The existence of different international, national and private standards that place value on emissions reductions poses a challenge to countries that participate in REDD+ as well as to communities and private actors participating in voluntary carbon market projects (Streck, 2020).

In this context, Congo Basin countries should prepare themselves for likely upcoming negotiations with potential investors proposing to develop jurisdictional-scale REDD+ projects. These investors will likely act very differently from the benevolent NGOs and the international organizations that have engaged in the REDD+ domain thus far. For instance, the common practice of the FCPF thus far has been to re-transfer 95% of generated carbon credits back to the countries so they could include these in their NDCs. Private sector investors, in contrast, will want to retain all or most of the credits for their own purposes (e.g., to offset their emissions from industrial processes in Europe or elsewhere). The implications of this – particularly in relation to Article 6 of the Paris agreement – should be known by the Congo Basin countries before engaging with REDD+ investors. Countries' representatives need to understand related concepts such as project nesting and double counting (Lee et al. 2018) in order to meet with investors on an equal footing.

As all three major carbon standards are currently under review and open for inputs, the specific recommendations of this report are:

Key points

- Engage in the review processes of carbon standards and request strong provisions for standing forests while ensuring the climate integrity of resulting carbon credits.
- Inform decision makers in Congo Basin countries about the potentials and pitfalls of engaging with actors from the voluntary carbon market. Carbon ownership rights, creating provisions to avoid risks of double counting, as well as knowledge of the technical and institutional requirements of projects for the voluntary carbon market are topics to be covered.

It should be noted that jurisdictional-scale REDD+ is contradictory to Germany's current political position.



Lobby for more favorable incentive structures for the Congo Basin forests

As mentioned in sections 3.3 and 3.4 on reference levels and monitoring systems, 2021 is the year when multiple RBP schemes are being re-defined. This concerns namely the GCF, the World Bank, CAFI and both major market schemes Verra/ VCS and ART/TREES. Hence, there is a window of opportunity to lobby for the specific needs of the Congo Basin countries.

No specific information was available regarding the direction to be taken in the ongoing revision of the GCF Scorecard. Experiences with the HFLD country Colombia point to issues of potential reversals of emissions reductions, a perceived lack of environmental integrity (inflated reference level) and the absence of a clear definition of what constitutes an HFLD country. (Lang, 2020). A clear HFLD definition aiming at balancing forest cover and forest loss such as that proposed by CAFI and TREES 2.0 could be a practical solution to this matter.

Enhanced clarity as to funding of HFLD countries might increase the chances of the Congo Basin countries to seek funding from the GCF. Nevertheless, as discussed in section 3.4, the reference levels submitted by Congo Basin countries to the UNFCCC thus far lack strong empirical evidence to make the case for an adjusted reference level. More robust assessments grounded on scientific evidence would likely increase the probability of receiving RBPs from the GCF.

The World Bank is currently undergoing reforms aimed at solidifying and focusing the Banks portfolio. The forest sector and REDD+ will not be spared from these reforms. These open a window of opportunity to move the Congo Basin and its forests higher up the agenda and to increase their visibility; the notion of "stable forests" in particular should and will likely be promoted.

The REDD+ agenda within the World Bank will likely move into a new climate and emissions reductions facility (CERF), an umbrella fund comprising the activities of the currently running Initiative for Sustainable Forest Landscapes (ISFL) and the Carbon Fund. Acknowledging the shortcomings of the narrow methodological boundaries in the Carbon Fund, the CERF will likely provide provisions for stable forests. The details of these provisions such as the scope of eligibility, options for appropriate policies, and economic benefits are currently being elaborated for the FCPF and should be available in March 2021. What has been elaborated thus far on a technical level is presented in Box 2 based on interviews with World Bank officials. It should be noted that these provisions are still subject to changes as the CERF moves from the design to implementation stage.

Box 2: The Climate and emissions reductions facility (CERF)

The CERF will be the main tool of the World Bank with respect to land-based emissions. Resting on three thematic pillars (natural climate solutions, climate smart agriculture, and financial and fiscal tools), it will be the successor to the ISFL and the Carbon Fund, the main sources of REDD+ funding in the Congo Basin. Contributions will be collected throughout the year 2021 and the fund will become active in 2022. The CERF will follow a stacking approach where co-benefits (for biodiversity conservation and water) will come on top of carbon benefits emerging from REDD+. The baseline approach will remain at the heart of CERF, but it will hold provisions for "stable forests" and notably those with demonstrated co-benefits such as for biodiversity and hydrology. Another goal of CERF is to reduce countries' reporting needs to the funding organization while an increase in carbon prices is foreseen.



Germany is one of the main donor countries to the FCPF, PROGREEN and the forest agenda of the World Bank. Congo Basin countries and CBFP members should actively participate in the consultations of the World Bank regarding the new CERF setup. The objective should be to assure appropriate funding levels for a) continued support for REDD+ readiness (focusing on sequestration and conservation of carbon stocks) and b) the stable forests component within the emerging CERF.

In the context of the World Bank reform process, continued readiness support for Congo Basin countries under the CERF countries should be the subject of intense consultations. One interviewee from the World Bank noted that in their internal calculations, preparedness accounts for 20% of total disbursed funding. Most Congo Basin countries still need to either construct or maintain their forest monitoring systems and fragile MRV capacities. Hence, appropriate funding windows for readiness (potentially including a milestones approach) and gaining direct access to the CERF, CAFI and GCF is in the interest of Congo Basin countries. Here is a summary of recommendations made in this section:

Key point

■ The main funding sources (GCF, World Bank) and schemes for the voluntary carbon market are currently under revision and open for consultations — this opportunity should be used to lobby for the case of Congo Basin forests. Among others, this includes issues such as a practical HFLD definition, continued readiness support, and provisions for standing forests and dynamic societal circumstances in RBP schemes.

Environmental offsets

Environmental offsets provide a mechanism for mitigating or eliminating the environmental and social impacts of mining, infrastructure development and agro-industrial projects. The idea gained traction in the Congo Basin when an Australian mining company pursued the proposal of an open cast iron ore mine straddling the densely forested border region of Cameroon and the Republic of Congo. Implementing such a large-scale project would inevitably lead to significant deforestation. As a compensation measure, the company declared interest in leading a logging concession but managing it as a protected area (Quétier et al., 2015)⁴⁴. The draft investment strategy of CAFI for Cameroon lists a number of planned large-scale projects, which could require environmental offsetting according to existing national legislation. According to the same source, the Singapore-based company Halcyon Agri, owner of a major rubber plantation in Southern Cameroon is currently seeking offsetting opportunities in the country.

On a wider scale, safeguards associated with multilateral development financing, such as the International Finance Corporation's Performance Standard and the World Bank's Environmental and Social Standard require compensation or offsetting of unavoidable impacts (zu Ermgassen et al., 2019). The IUCN reports at least voluntary provisions for biodiversity offset policies in

⁴⁴ It should be noted that the idea of the MBALAM-NABEBA iron ore project never solidified, nor did the conservation concession.



most Congo Basin countries but actual implementation of offsets has been observed in Cameroon only ⁴⁵.

Environmental offsetting could generate funds for REDD+ implementation. To that end, national REDD+ funds could collect these revenues centrally. Trust funds from the mining sector to fund protected area management exist in other countries. Positive examples of the functioning of trust funds exist in Madagascar and Côte d'Ivoire, as mentioned by one interview partner from academia. In DRC, an offsetting revenue stream could be generated to replenish FONAREDD, thereby integrating environmental offsets into the national REDD+ architecture.

Nevertheless, offsetting should only be the last option in a mitigation hierarchy to development impacts after avoidance, minimization and restoration (zu Ermgassen et al., 2019).

Key point

 Environmental offsets from large-scale infrastructure, mining and agro-industrial development projects might become a source of funding for REDD+.

3.7 The role of the industrial forest sector

Current status

In the past, the industrial forest sector has been very successful in claiming land as part of the national forest domain of the Congo Basin countries, i.e., land designated to remain forest. Of the 171 Mio ha of dense rainforest, 50 Mio ha are under concession, of which 24 Mio ha have active management plans (OFAC, 2019). Moreover, across the Congo Basin, around 4 Mio ha of concessions are certified according to the FSC or the Programme for the Endorsement of Forest Certification standard (in Gabon, Cameroon and the Republic of Congo) and another 6 Mio ha are certified according to legality standards proposed by private operators such as Bureau Veritas, Nepcon and Control Union (Grandjean, 2020).

Relevant for REDD+ is that selective logging produces the equivalent of up to 40% of total emissions from deforestation in the densely forested Congo Basin countries (Umunay et al., 2019).

The wood market is changing. Concession forestry faces multiple economic pressures such as declining wood yields in the second or even third wood harvesting cycles and changing markets with Asia on the rise, where it is more difficult to pass on costs of certification to consumers in the form of premium prices for precious wood. Domestic demand for wood is increasing and has so far been met predominantly through informal and clandestine channels. Formalization of the forest sector has not made much progress in the Congo Basin countries (Cerutti et al., 2016).

With revenues from forestry decreasing, national governments are increasingly tempted to convert the production forests into other land uses such as agro-industrial plantations, as one interviewee noted. The industrial forest sector in this situation is a potential legal stronghold against emerging tendencies of large-scale forest conversion (Sartoretto et al., 2017).

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⁴⁵ See https://portals.iucn.org/offsetpolicy/.



The industrial forest sector has been the subject of fierce discussion and disputes both between NGOs and donors as well as within the donor community⁴⁶. NGOs argue that the industrial forest sector is a factor contributing to illegal activities that are detrimental to forests while local communities receive minimal benefits from logging activities. On the other hand, more sustainable forest management is clearly a strategic component of REDD+. A literature review results in three main statements in this regard:

- 1. Deforestation is significantly lower inside forest concessions than outside; the forest domain does have an impact (see e.g. Bruggeman et al., 2015).
- 2. Across the Congo Basin, deforestation is significantly lower in concessions with forest management plans than in those without such a plan (see e.g. Tritsch et al., 2020).
- Certification is a lever for improving practices and self-regulation of certified companies. (see e.g., Karsenty & Ferron, 2017). Also, certification further reduces occurrence of deforestation (Tritsch et al., 2020).

In addition to the industrial forest sector, several Congo Basin forests also feature community forestry (CF). The CF regime started some 20 years ago in Cameroon, where blocs of up to 5,000 ha of forest were put into the hands of communities. The global experience with CF is that communities do not *per se* manage forests better than e.g., concessionaires do, as one interviewed technical expert noted.

A recent collection of academic papers shed light on CF in the Congo Basin⁴⁷. Piabuo et al. (2018) consider CF projects in Cameroon have fallen short of their original intent due mainly to technical and managerial limitations within the communities but also the fact that the forestry ministry never fully embraced the idea of community forestry. A similar conclusion seems fitting for the DRC where a new law allows for blocks of up to 50,000 ha to be turned into CF. The same financial, technical and organizational challenges persist as in the Cameroonian case. Moreover, they are escalated by the sheer size of the envisaged CF blocks. A review by Lescuyer et al. (2019) finds that CF in the DRC is likely not a viable tool for forest protection.

Recommendations

A wide range of options in relation to promoting certification is put forward by the KfW-funded Program for the Promotion of Certified Forest Management (PPECF⁴⁸). The spectrum of interaction ranges from tax breaks to other fiscal instruments favoring certification. It should be noted that the scope of the recommendations made here goes beyond the REDD+ realm. The following provides a selection of the most promising instruments.

Concessions 2.0

The current business model of delimiting enormous spaces designated essentially for a single land use like logging is not sustainable considering the demographic trends in the region. The

⁴⁶ See e.g. https://www.regjeringen.no/no/aktuelt/rainforest-foundation-uk-misleads-the-public-about-the-international-communitys-efforts-to-preserve-congos-forests/id2564628/

⁴⁷ See https://www.ecologyandsociety.org/issues/view.php?sf=123

⁴⁸ See http://www.ppecf-comifac.com/



idea of concessions 2.0 is to create multi-purpose concessions with overlapping rights to transform forest concessions into integrated development spaces with even distribution of benefits to communities.

The company *Precious Wood* in Gabon provides an illustrative example: they mapped traditional village uses within the concession and set up a voluntary benefit-sharing system allocating 800 Francs per m³ of wood extracted from the concession based on the village mapping. In this way, they turned the communities into shareholders of the concession. Such a set-up also facilitates the development of new economic activities, e.g., NTFPs, where the company leverages its marketing power. Small patches of man-made savannah exist within the concessions, which are an ideal spot to produce zero-deforestation cocoa, ideally with support from the concessionaire for transport and marketing. The case of Precious Wood inspired Law 105 on benefit sharing for concessions in Gabon and is a role model for an existing law in the Republic of Congo. A challenge encountered in the case of Precious Wood was that communities recently asked to receive upfront the "shareholder funding" for the entire 25 years of the concession's duration.

Key points

- Congo Basin countries' forest estate holds strong legal provisions against forest clearing.
 Given the economic crisis of the industrial concessions sector, this new business model might be key to maintaining the current extent of the forest estate.
- Donor countries and CBFP members should push for a Concession 2.0 model within the International Tropical Timber Technical Association and in the legal reform processes. They could also provide funding to upscale positive cases into a structured approach beyond companies' management requirements ("cahier des charges").

Promoting forest certification

There are several approaches to the promotion of certification, first outlined by Westerlaan (2019). Making certification cheaper than the current 1–2 EUR/m³ wood harvested would potentially increase the uptake by forest concessionaires. This can be achieved via group certification or donor-funded support programs such as the PPECF.

Linking certification with the EU Timber Regulation (EUTR) would give certified wood preferential access to the European wood market. To that end, the EU authorities would need to provide a 'green lane' to certified timber when imported to the EU. An interviewed forest sector expert stated that the EU Commission recently launched a consultation in this regard but that hopes for implementation are dampened.

Key point

Forest certification is a catalyst for sustainable forest management. To promote certification, certification costs can be lowered or international donors can subsidize certification through support projects. On the demand side, the EU could link certification with the EUTR and thereby facilitate the importation of certified wood products.



Fiscal incentives for certified logging

The government of Gabon is considering setting up a *bonus-malus* system for different levels of wood certification, with the ultimate aim to make certified production the standard in Gabon.

- Level 1: FSC certified; significant tax reduction
- Level 2: Certified legality; small tax break
- Level 3: No certification; full tax

Independent observers note that this will possibly drive Chinese logging companies out of the country as they – in contrast to European companies – cannot easily charge a price premium to their customers in China to buffer the extra costs of certification⁴⁹.

A feasibility study for PPECF also recommends the same approach of differential logging taxes for other Congo Basin countries, notably Cameroon where the current tax base is highest of all Congo Basin countries, and where currently only one single concession is FSC-certified (Karsenty, 2020). The entry point for this *bonus-malus* system in Cameroon would be "la loi de finance réctificative" (an amending finance law). According to Karsenty, international donors would compensate Cameroon for foregone tax revenues. He does not see a non-permanence problem in this set-up (i.e., a situation where enhanced practices cease with payments) because once implemented, certification triggers a quasi-irreversible transformation towards a forest-positive company culture.

REDD+ as a source of funding to bear the costs of carbon-positive reduced impact logging has been tested but with current carbon prices levels is not a viable option as such (Rossi et al., 2017). However, this could change with the likely increase of carbon prices in the near future. Also, REDD+ payments for reduced forest degradation within concessions could cover a fraction of the costs of certification, with the remainder to be covered by international donors.

Key point

Congo Basin governments can unlock the potential in countries' fiscal systems to incentivize certification and sustainable forest management. Foregone state revenues could be compensated by donor funds in the framework of a robust milestones approach. Cameroon likely holds the biggest potential in that regard. REDD+ RBPs can complement but not carry the costs of reduced impact logging and certification at the current carbon price level.

⁴⁹ See a commentary by Alain Karsenty: https://news.mongabay.com/2018/10/the-legal-institutionalization-of-fsc-certification-in-gabon-commentary/



3.8 Stakeholder platforms for deforestation-free commodities

Current status

The REDD+ mechanism has partly fallen short of its original objectives to use financial incentives to change the behavior of governments, firms, and individuals and thereby improve environmental stewardship and foster social values (Cashore et al., 2016). Therefore, it is important for development partners such as GIZ to also consider alternative solutions to slowing down deforestation in the region.

What is more, the nature of deforestation might change in the future. What we do know is that as Congo Basin governments seek economic development options for their citizens, many stateled efforts to become "emerging" economies are focused on the expansion of agroindustry following the Malaysian model. These agro-industrial development plans pose severe risks to standing forests in the medium term and these risks should not be underestimated. The reason these "emerging" economic development plans are especially alarming is because the ability of governments in the region to regulate the private sector and enforce laws related to environmental protection is extremely limited. This is exemplified by the region's experience with the EU's Forest Law Enforcement, Government, and Trade (FLEGT) Action Plan. No Congo Basin country is yet able to credibly verify that the timber produced within its jurisdiction is not subject to illegalities. For example, Cameroon entered FLEGT Voluntary Partnership Agreement (VPA) negotiations in 2004 and, since then, has not delivered a single shipment of legally verifiable timber under the FLEGT system (Adams et al., 2020; Cerutti et al., 2020). The timber tracing and legality verification system, arguably the core component of the VPA, has been in deadlock since 2018 (EFI, 2018).⁵⁰

While the Congo Basin has remained relatively unscathed from agro-industrial development due to political instability and weak investment climate (World Bank, 2020), the risk is high that the it will emulate the widespread forest destruction as witnessed in the Amazon and South-East Asia. In fact, the massive conversion of forests to agro-industry is arguably considered a desirable development pathway for many state officials. For example, Cameroon's Cacao and Coffee board has a "New Generation Cocoa" program to support youth engagement in cocoa production, where youth are given freshly cleared forest land to establish their cocoa farms.

According to one interviewee from academia, there is widespread admiration of the "Malaysian model" as a development model; however, implementation of this in the Congo Basin would devastate biodiversity and climate stability in the region. The feasibility of the model is questionable for a country like Gabon with its limited availability and high costs of labor. Rather, he suggests Gabon should be persuaded to follow the "Costa Rican model" and develop its service and research sectors by building universities and fostering associated post-industrial economic activities rather than land-based development. The situation differs for each country in the Congo Basin, which is why this report has selected three countries where CBFP participants and funders can consider focusing their efforts moving forward.

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⁵⁰ On a related note, recognizing the failures of the VPA is timely because the EU is considering an approach similar to the FLEGT-VPA for regulating deforestation in agriculture supply chains, such as cocoa or palm oil (Sanial et al., 2019).



For palm oil, Cameroon, the Central African Republic, DRC, and the Republic of Congo have signed the Tropical Forest Alliance (TFA) Africa Palm Oil Initiative, which lays out principles for sustainable oil palm development, including the earmarking of forest areas to avoid their conversion⁵¹. This is also known as the TFA 2020 Marrakesh Declaration. Gabon is notably lacking as a signatory from this Declaration because it stated that signing on to a "zero deforestation" agreement is not realistic for this high forest cover country. Rather, Gabon prefers to work with partners who recognize that some deforestation may be necessary and therefore allowed for the country's development.

Although there are looming threats from palm oil and hevea, the cocoa sector is given most attention in this report due to the relative immediacy of the threat as compared to other commodities and the media exposure that it has received in the recent past. Current cocoa production is championed by Ghana and Côte d'Ivoire. Cameroonian cocoa currently ranks fifth in global cocoa production with less than 300,000 tons per year, but the government has issued plans to more than double the annual cocoa harvest to 600,000 tons. Climate change threatens to prevent cocoa from flourishing in West Africa (Schroth et al., 2016) whereas global demand for the commodity is on the rise. Hence, there is a real threat that cocoa production might partly re-locate to Central Africa.

The cocoa-deforestation nexus is also experiencing increasing political visibility in the European political arena⁵² and cocoa is considered a pilot product in the concept of an EU observatory of deforestation and forest degradation⁵³. The European Union imports more than 65% of the globally produced cocoa; this figure is significantly higher than for other globally traded commodities such as soy, beef or palm oil⁵⁴. Further complications arise from the fact that intensification of agroforestry cocoa systems (the current standard production system in Central Africa) to reach the same yields as in full-sun systems (which are commonplace in West Africa) will likely result in future deforestation and heavy degradation far beyond current levels in Central Africa (Blaser et al., 2018; Niether et al., 2020).

The momentum of Cameroon's Framework for Action⁵⁵ towards deforestation-free cocoa has opened a window of opportunity that calls for swift and concerted action to encourage the government of Cameroon to make realistic and meaningful commitments to sustainable cocoa development. Policy commitment is needed for forest protection to be possible. Zero-deforestation commitments and REDD+ require close coordination to avoid unintended negative consequences, especially for subsistence and smallholder agriculture (Hargita et al., 2020).

Potential supply chain options outside the scope of this assessment should also be mentioned. National and international tax regimes do shape supply chains and, as a consequence, deforestation dynamics. Cameroon and the Republic of Congo impose high import tariffs on crude

estation dynamics. Cameroon and the Republic of Congo impose high import tariffs on crude and refined palm oil (Pacheco et al., 2017) to protect the market from competition from South-East Asia. At least the industrial oil palm sector in Cameroon would otherwise not be competitive

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 $^{^{51}\,}See\ \underline{https://www.tropicalforestalliance.org/assets/Uploads/Tropical-Forest-Alliance-APOI-Briefing-Note-2018.pdf.}$

⁵² https://ec.europa.eu/commission/presscorner/detail/en/ip 21 193.

⁵³ See https://ec.europa.eu/environment/forests/eu comm 2019.htm.

⁵⁴ See trase.earth.

⁵⁵ See https://www.idhsustainabletrade.com/initiative/roadmap-cameroon/; UNIQUE experts are involved in piloting the approach in the Center and South regions.



(Feintrenie et al., 2014), i.e. palm oil consumed in the country (especially in the cities) would otherwise be mostly imported from South-East Asia. Consequently, removing this protective tariff would weaken oil palm expansion and thus decelerate oil palm-induced deforestation in the Congo Basin. Nevertheless, this political decision of imposing tariffs to strengthen a supply chain that is considered key to national development is likely beyond the reach of forest policies and ODA. Furthermore, removing the tariff would be an imprecise measure and likely threaten livelihoods linked with the industrial oil palm sector. Also at European level, there is little scope for differentiated import taxes to halt tropical deforestation (Bager et al., 2021). Public sector procurement of wood is irrelevant too, as the amounts in question are negligible compared to the domestic markets. This is true both for the European or German market as well as for the domestic markets in the Congo Basin (OFAC, 2020). Legality compliance for public procurement is therefore only of symbolic value or might play a catalytic role in the future.

Recommendations

Of the endless possible options that GIZ can engage to protect forests in the Congo Basin, we outline a selection of priority options that we consider most promising. These mainly revolve around supporting deforestation-free initiatives involving the private sector, as they have gained significant momentum in recent years.

With this in mind, many governments in the Congo Basin do not appreciate the term "zero deforestation" supply chain commitments because they do not think that "zero" deforestation is realistic given the development needs of Congo Basin countries. Therefore, attention to nuances in terminology such as *deforestation-free* rather than *zero deforestation* can often go a long way in political discussions (Linhares-Juvenal and Neeff, 2017).

The private sector and affiliated partners typically initiate Stakeholder platforms, but without political will and the state fully on board, the Congo Basin forests cannot be saved. Interviewed experts emphasized that working on environmental politics requires persistence. It is important to stay engaged beyond the high-level agreements, as stated by an interviewed industry representative: "there's a weird belief that deforestation stops the minute you shake their hands."

Encourage implementation of Cameroon's Roadmap to Zero Deforestation Cocoa

First, Cameroon should be supported to implement the measures outlined in their Roadmap to Zero Deforestation Cocoa. The CBFP members and other actors and donors can bring renewed attention to the importance of approaching cocoa sector development in a very strategic manner. Initiating new and continuing existing dialogues with the highest levels of politicians will bring further political attention to the importance of focusing on quality, not quantity, when it comes to cocoa production in Cameroon. Rather than producing high volumes of the bulk/conventional cocoa that is produced in Côte d'Ivoire and Ghana, Cameroon should consider branding its cocoa as a high-value product since it remains largely produced under agroforestry systems. In this context, it should be noted that certification bodies like Rainforest Alliance/UTZ currently do not hold provisions for the role of cocoa production in relation to deforestation. Depending on non-cocoa tree species and structure, agroforestry systems can reach biodiversity levels and carbon stocks similar to primary forests (Gockowski and Sonwa, 2011).



Focusing on quality and branding would allow Cameroon to fetch higher prices on international markets to reverse the current situation where Cameroon's beans are ranked amongst the lowest quality globally. Cameroon should emulate Belize's approach to cocoa production, where the country is known around the world for its fine flavor varieties. Achieving this in Cameroon would require a massive state-led effort to revitalize the cocoa quality grading system that was lost during the Structural Adjustment period in the 1980s and 1990s. The remaining plantations of "German cocoa" from colonial times could be a good starting point to that end. These cocoa varieties give a reddish cocoa powder, which is sought after by the confectionary industry for toppings (Stoll et al., 2017).

Traceability and monitoring of cocoa in Cameroon remains a patchwork. This currently makes it impossible to verify the cocoa's origin and thereby determine whether the cocoa was produced in an agroforestry system and, if so, what kind of agroforestry system. Although the private sector plays a key role, setting up systems for traceability and monitoring is first and foremost a government-led decision and if the government makes a sustainable cocoa policy, then the private sector will follow, as one interviewee with a facilitator of a multi-stakeholder platform said. It should be noted that the situation is not better in Ghana and Côte d'Ivoire, which has not impeded political commitment to lowering deforestation there. Particularly monitoring of forests (and encroachment of agriculture, including cocoa, therein) is a key competency within the REDD+ agenda. This calls for a stronger integration of zero-deforestation initiatives within the REDD+ agenda.

The CBFP and the GIZ, particularly through its program for "Sustainable Smallholder Agribusiness in Western and Central Africa", should also take an active position within the Roadmap to Zero Deforestation Cocoa. Currently led by the Netherlands-based International Sustainable Trade Initiative (IDH), the current design of the roadmap implementation very much represents the interests of the international cocoa buyers at the expense of cocoa farmers.

The baseline thinking of IDH is to replicate the Cocoa and Forests Initiative (CFI), now active for five years in Côte d'Ivoire and Ghana, where the focus is on stopping deforestation in the last remaining forests located in protected areas, primarily by means of law enforcement. Interviewed experts involved in the implementation of regional pilots of the roadmap in Cameroon (the so-called Green Commodities Landscapes program) strongly question that approach. The vast majority of cocoa in Cameroon comes from outside the national forest domain, i.e., the state has no legal claim whatsoever to zero-deforestation cocoa.

Rather, cash payments and in-kind technical support to farmers conditional upon pro-forest performance should be considered. Equivalent to the CFI in West Africa, Cocoa buyers should finance price premiums (with the World Cocoa Foundation (WCF) as intermediary) and REDD+payments can be complementary.

Finally, stronger integration of the Roadmap to Zero Deforestation Cocoa into the national REDD+ architecture is desirable. Cocoa is one driver of forest loss and, from a REDD+ perspective, the Roadmap to Zero Deforestation Cocoa is a tool to tackle this driver. On an operational level, the national REDD+ monitoring system (see section 3.3) should be able to trace cocoa rather than spending significant resources on setting up a parallel monitoring system. Concrete suggestions are:



Key points

- In Cameroon, the Roadmap to Zero Deforestation Cocoa should receive more state commitment and alignment with the REDD+ process and it should be directed towards a more producer-friendly setup.
- At European level, cocoa should become a pilot commodity in an emerging EU Observatory on deforestation and forest degradation. The prominence of Cameroon and the Congo Basin should be lifted on the agenda as the new cocoa expansion frontier. Zero-deforestation cocoa should be integrated into the REDD+ architecture.

Instigate the Cocoa and Forest Initiative in DRC

Since 2017, the governments of Côte d'Ivoire and Ghana have been working with industry partners to develop strategies to eradicate deforestation from the cocoa supply chain. Based on this experience, the WCF has a strong understanding of what is needed to create impactful partnership platforms through the CFI. In consultations carried out for this study, WCF staff stated that they would be interested in replicating the CFI approach in the DRC. They acknowledge that the context of DRC is vastly different, but the approach can be tailored in a way that ensures strong state regulation of the cocoa industry as they seek to expand into new growing areas. GIZ can approach the WCF to jointly develop an approach to deforestation-free cocoa in DRC.

Based on conversation with an academic scholar who has done in-depth field investigations on REDD+ in DRC, bean-to-bar chocolatiers whose brand identity focuses on sustainable production in origin, such as the Virunga Chocolate⁵⁶, should be fostered using innovative marketing approaches and resulting price premiums (Windey, 2020).⁵⁷ At the same time, strict safeguards are required to avoid the massive forest conversion that has decimated Ivorian and Ghanaian forests. Similar to the case of Cameroon, DRC can strategize politically how best to foster quality over quantity when it comes to Congolese chocolate, recognizing that chocolate consumers are willing to pay more for sustainable agroforestry-based cocoa products (Cargill, 2020). If implemented in DRC, the CFI should be closely linked and coordinated with the REDD+ agenda, including during strategy formulation and monitoring implementation. Recommendations are:

Key point

Innovative marketing characterizes the relatively small amount of Congolese cocoa. This is a basis for fetching price premiums and should not be underestimated as an important basis for potential replications of the CFI approach in the DRC.

⁵⁶ See https://originalbeans.com/cru-virunga-congo/.

⁵⁷ Another example is <u>Theo Chocolate</u> (based in Seattle) that purchases directly from Watalinga in the Eastern Democratic Republic of Congo through Ben Affleck's Eastern Congo Initiative (ECI).



Support national-level efforts to earmark forests through a High Conservation Value approach

Mapping of High Conservation Value (HCV) and High Carbon Stocks (HCS) is a common approach to define priority areas for conservation or, reversely, no-go zones for agricultural expansion.

Although this option is explained in the section on alternatives to REDD+ frameworks, the practical recommendations provided are also relevant within REDD+ frameworks. At the highest possible political level, national principles to address the social and environmental issues in land-based investments should be developed using, for example, the Accountability Framework Initiative ⁵⁸ as guidance. Experience through the TFA has shown that if governments create these national principles, the private sector is supportive.

In parallel, a national mapping effort should be supported to designate no-go forest areas. Based on expert opinion from stakeholder platforms and corroborated with recent academic literature (Lyons-White et al., 2020), the HCV approach is preferable to HCS. HCV is more comprehensive and includes, for example, biodiversity hotspots that may fall outside forest areas. It is also more practical to implement as compared to HCS. During this national mapping exercise (be it for HCS or HCV), effort should be made to integrate the free, prior, and informed consent of local communities (Carodenuto and Fobissie, 2015).

In Gabon, HCV/HSC mapping has been institutionalized as part of the country's agricultural development strategy. Partial HCV/HCS mapping (focusing on three out of the six criteria) has been performed on national scale by academic research (Austin et al., 2017). The remaining criteria are very site specific and are best assessed for particular projects. An interview partner from the Gabonese government confirmed that the carbon threshold for no-go areas is currently under discussion in Gabon under the auspices of the CNC. The discussions build on operational HCV definitions in West Africa⁵⁹.

In Cameroon, large areas have also been HCV mapped but these are in the remote Tri-National Dja, Odzala and Minkébé protected areas network where agro-industrial development is currently unlikely to occur. A full definition and visual interpretation of the six HCV criteria is provided in Figure A 3 in the annex. Specific recommendations of this report are:

Key point

■ The HCV/HCS approach is promising for earmarking priority areas with high carbon stocks and rich biodiversity and cultural values. It is a useful tool both for prioritizing REDD+ investments in "stable forests" and sensitive areas for commodity production. HCV/HCS mapping should be more widely applied across the Congo Basin and streamlined with sectoral development policies.

⁵⁸ See https://accountability-framework.org/.

⁵⁹ There is consensus that 35tC is the lower boundary for HCS forests in West Africa. In the Gabon context, the value will be higher.



4 CONCLUSIONS

The forests of the Congo basin, the second largest contiguous tropical forest area in the world, face multiple threats. The growing populations of Congo Basin countries put increased pressure on the region's forest resources. Resource extraction, agro-industry, infrastructure projects and pressure from international value chains are growing. To counter such trends of increasing deforestation and forest degradation, Congo Basin countries have engaged in REDD+ under the UNFCCC. With REDD+ advancing slower than expected, this report reviews the status quo of REDD+ implementation in the DRC, Gabon, and Cameroon and highlights barriers and recommendations for REDD+ implementation.

Status quo in DRC, Gabon and Cameroon

The DRC hosts 60% of the Congo Basin's forests. Forest management in the DRC is facing multiple challenges, including threatened territorial integrity and looming poverty of the rapidly increasing population, to name just a few. Nevertheless, with strong support from a multitude of international partners, the DRC has made far-reaching formal achievements in the REDD+ process. Upscaling approaches beyond mere pilot regions remains a challenge.

Gabon shows strong political commitment to keeping forest loss low. Paired with strong skills in managing and monitoring its forests, this has allowed the country to quickly and effectively reengage in the REDD+ process as late as 2019. Acknowledging Gabon's political commitment, the donor country Norway engaged in a bilateral agreement with the country comprising up to USD 150 million in RBPs over a 10-year period.

In contrast, lack of progress with REDD+ in Cameroon is surprising, given its relatively favorable starting conditions. Interviewees consulted during this study almost unanimously noted the lack of inter-sectoral coordination between ministries and the lack of a clear designation of responsibilities, leadership and sufficient political will relating to forest protection matters. As a result, the REDD+ preparation process in Cameroon is currently stalled. Interest and capability of Congo Basin countries to halt deforestation is a primary pre-requisite for REDD+ to be effective.

Political will and "governability"

Severe political challenges persist in the Congo Basin, with state fragility and lacking alignment between sectoral policies being the most prominent ones (section 3.1). Merely "making the financial carrot bigger" will not solve the problem. The declining trend of the Congo Basin forests cannot be solved simply by channeling more funds to the region. Rather, funding must be combined with measures that address the underlying governance context so that the impact of funding measures can be increased. Implications are:

- Concerted donor action such as within CAFI, the FCPF or the GCF is generally the preferable modus operandi over bilateral partnerships.
- Bilateral country partnerships are advantageous in situations of clear political commitment from a forest country in need of specific support outside regular REDD+ funding schemes.
- Cross-sectoral initiatives (such as strategic land use planning and family planning) are promising for several Congo Basin countries, even when formal REDD+ engagement is weak.



- REDD+ can be a win-win situation offering benefits for both agriculture and forests. Priority for agricultural intensification should be given to staple crops, which have a low risk of causing rebound effects and aggravating the pressure on forests.
- Forest-friendly land use planning should be part of most or all benefit-sharing plans and accompany donor investment in sustainable agricultural intensification.

Political commitment in one national institution designated for REDD+ is usually high, which does not necessarily mean that REDD+ implementation is effective. Rather, multiple sectoral institutions and actors need to be aligned to deliver for REDD+.

Coherence of forest-relevant policies

Misalignment of land-based sectoral policies is a prominent cause of underperformance of REDD+. The REDD+ agenda tends to remain within the narrow boundaries of the respective ministry in charge (mostly the environment ministry), whereas decisions over land use are made in sectoral ministries dealing with forestry, agriculture, mining and others (section 3.2). The implications of this are:

- After readiness is completed, the REDD+ agenda should be anchored at a high political level.
 This measure has the potential to foster alignment of sectoral ministries.
- Policies with multi-sectoral benefits should be prioritized. Inclusive land use planning should be considered a top priority as it has the potential to address several of the underlying causes of deforestation.

Political will and alignment across sectors are the key fundamentals for effective REDD+ implementation. To demonstrate the positive impacts of REDD+ on forests and, ultimately access RBPs, functional monitoring systems are needed.

National Forest Monitoring and MRV systems

Congo Basin countries have made significant progress in forest monitoring, and also in the efforts of measuring, reporting and verifying (MRV) emissions from forests (see section 3.3). The development of national forest monitoring tools has focused on tracking the area of forests and deforestation and, to a lesser extent, on degradation. However, current MRV tools are not well suited to reliably tracking the more gradual and nuanced carbon sequestration function of standing forests.

Quantifying sequestration with adequate precision is an ongoing challenge. It will require substantial enhancement of forest monitoring and MRV capabilities across the Congo Basin. The implications of this are:

- To solidify gains made in countries, forest monitoring should be anchored within permanent institutions supplemented by (but not fully dependent on) external REDD+ funding. Academic institutions could play a more significant role. This should ensure effective capacity building and securing these capacities at the national level in the long-term.
- Regional-scale forest monitoring with subsequent national-scale adjustments will speed up and make the monitoring process more coherent. Ownership needs to remain in country hands.



- One priority should be securing funds for forest inventories. Such inventories could be enhanced and rendered more cost-effective by applying disruptive new technologies such as spaceborne radar measurements.
- With carbon accounting rules currently being reviewed by several funding organizations, reporting frameworks should be designed in a way that matches the current monitoring capabilities in the Congo Basin while ensuring integrity of resulting carbon credits.
- It should be said that MRV systems do not address the underlying causes or direct drivers of deforestation and forest degradation per se.

The question of a benchmark for emissions reduction - a baseline termed Forest Reference (Emission) Level - is closely related to MRV.

Forest Reference (Emission) Levels

There is significant scope within existing funding schemes to adapt reference levels to national circumstances such as those prevailing in the Congo Basin. Nevertheless, technical challenges persist in widening the scope from deforestation to other REDD+ activities such as degradation and forest stock enhancement (section 3.4). The implications of this are:

- Historical reference levels with short reference periods are generally preferable as they are considered more robust by donors and increase the chances of obtaining funding for RBPs.
- Existing funding frameworks hold provisions for significant adjustments of national reference levels to specific circumstances in HFLD countries. The context of some Congo Basin countries is favorable for allowing these kinds of adjustments.
- Several RBP schemes are currently under revision. This window of opportunity should be used to actively engage in the consultation processes regarding the design of FREL/FRL provisions. Actors interested in remunerating ecosystem services provided by the Congo Basin rainforests could lobby for the case of HFLD countries.
- The road to obtaining RBPs is long. Donors should consider a robust milestone approach foreseeing financial incentives for implementation of policy reforms during the readiness and investment phases.

To date, REDD+ has focused on avoiding deforestation and degradation, but increasing the scope to include other activities permitted by REDD+ is necessary.

Focus on the Plus in REDD+

Novel paradigms about the important role of standing forests for the global climate are gaining traction (section 3.5). The implications of this are:

- There is increasing scope for incorporating values from "plus activities" (actual or foregone sequestration, sustainable forest management, conservation of carbon stocks), particularly for stable forests.
- Different approaches are being developed. Funders such as CAFI and the World Bank are considering new approaches to remunerate the conservation of standing forests. There is currently a window of opportunity to engage in consultation processes to assure that standing forests in the Congo Basin receive due attention.
- Standing forests do not need to compete for funding with highly threatened forests.



- There is scope to adjust the reference level approach to incorporate the value of stable forests
- Better MRV systems and data are needed to reliably demonstrate the benefits of stable forests and account for nuanced changes in degradation and carbon sequestration within these forests.

The underlying question is "what should be funded"? The next section will address the question of funding sources. At present, REDD+ practitioners must navigate a multi-tier financing land-scape.

Financing approaches

A multitude of potential financing approaches exist (mostly) within the current framework of the UNFCCC agreements. Established REDD+ funding organizations such as the GCF, the World Bank, CAFI and bilateral donor setups acknowledge the need for more sustained funding that targets standing forests and their carbon sequestration function (section 3.5). The implications of this are:

- The current revision of rules for international funding sources provides an opportunity to lobby for enhanced provisions for the Congo Basin and HFLD countries. It is important to consider an operational HFLD definition, continued readiness support, provisions for standing forests and the dynamic societal circumstances in RBP schemes.
- Nature swaps and other means of greening sovereign debt should be instigated.
- "Greening" regular funding streams in land-based sectors has received attention but the idea is not yet operational.
- The voluntary carbon market is discovering Central Africa as a region to produce carbon credits. it is important to inform decision makers about the potential and risk of carbon offsetting projects such as carbon ownership and the implications for a country's NDC. Furthermore, safeguards need to be ensured in order to avoid unintended side effects of private sector engagement.
- Local schemes for PES offer potential as an intermediary measure. Funding sources might be international corporations in the cocoa sector or very small taxes on consumables.
- Environmental offsets from large-scale infrastructure, mining and agro-industrial development projects in the region have the potential to become a source of funding for REDD+.

National governments are the main protagonists of REDD+. Complementary to national government, private sector actors are important stewards of the Congo Basin forests.

The role of the private sector

The private sector plays a critical role in the preservation of Central African forests. The forest sector (section 3.7) manages immense forest areas in the countries' national forest domains. The cocoa sector is very important in Cameroon and its role might increase across the region in the future (section 3.8). The implications of this are:

• In the industrial logging sector, the Concession 2.0 model integrating multiple land uses should be lobbied for in a country's legal reform processes.



- Costs for logging certification can be lowered through support projects. Lower costs would also facilitate the uptake of certification by the industry. On the demand side, the EU could link certification with the EUTR, which would facilitate the importation of certified wood products.
- Congo Basin countries' fiscal systems, particularly in Cameroon, where the tax burden is high, hold potential to incentivize certification and sustainable forest management. Donor funds would need to cover the countries' foregone tax revenues.
- Cocoa is a promising candidate to become a pilot commodity in an emerging EU observatory on deforestation and forest degradation, which would increase pressure on the sector and provide support.
- A more active position within the Roadmap to Zero Deforestation Cocoa in Cameroon could steer this initiative towards a more producer-friendly setup. Deforestation-free commodity sourcing can be replicated in other countries in the region.
- The HCV/HCS approach is a promising model for earmarking priority areas with high carbon stocks, rich biodiversity and cultural values. It is a useful tool both for prioritizing REDD+ investments in "stable forests" and sensitive areas for commodity production. Better streamlining with sectoral development policies is needed.



REFERENCE LIST

- Abena, J.C., 2005. Évaluation des ressources forestières nationales du Cameroun 2003-2004. Résumé des résultats de l'Inventaire Forestier National. Yaounde, Cameroon.
- Adams, M.A., Kayira, J., Tegegne, Y.T., Gruber, J.S., 2020. A comparative analysis of the institutional capacity of FLEGT VPA in Cameroon, the Central African Republic, Ghana, Liberia, and the Republic of the Congo. For. Policy Econ. 112, 102108.
- Ali, Z., Green, R., Zougmoré, R.B., Mkuhlani, S., Palazzo, A., Prentice, A.M., Haines, A., Dangour, A.D., Scheelbeek, P.F.D., 2020. Long-term impact of West African food system responses to COVID-19. Nat. Food 1, 768–770. https://doi.org/10.1038/s43016-020-00191-8
- Angelsen, A., 2017. REDD+ as Result-based Aid: General Lessons and Bilateral Agreements of Norway. Rev. Dev. Econ. 21, 237–264. https://doi.org/10.1111/rode.12271
- Asner, G.P., Powell, G.V.N., Mascaro, J., Knapp, D.E., Clark, J.K., Jacobson, J., Kennedy-Bowdoin, T., Balaji, A., Paez-Acosta, G., Victoria, E., Secada, L., Valqui, M., Hughes, R.F., 2010. High-resolution forest carbon stocks and emissions in the Amazon. Proc. Natl. Acad. Sci. 107, 16738–16742. https://doi.org/10.1073/pnas.1004875107
- Atmadja, S., Arwida, S.D., Martius, C., Pham, T.T., 2018. Financing REDD+: A transaction among equals, or an uneven playing field? [WWW Document]. CIFOR. URL https://www.cifor.org/knowledge/publication/7063/ (accessed 1.18.21).
- Austin, K.G., Lee, M.E., Clark, C., Forester, B.R., Urban, D.L., White, L., Kasibhatla, P.S., Poulsen, J.R., 2017. An assessment of high carbon stock and high conservation value approaches to sustainable oil palm cultivation in Gabon. Environ. Res. Lett. 12, 014005. https://doi.org/10.1088/1748-9326/aa5437
- Baffour Awuah, K.G., Hammond, F.N., Lamond, J.E., Booth, C., 2014. Benefits of urban land use planning in Ghana. Geoforum 51, 37–46. https://doi.org/10.1016/j.geoforum.2013.09.019
- Bager, S.L., Persson, U.M., dos Reis, T.N.P., 2021. Eighty-six EU policy options for reducing imported deforestation. One Earth 4, 289–306. https://doi.org/10.1016/j.oneear.2021.01.011
- Berk, N., Lungungu, P., 2020. REDD-MINUS: The Rhetoric and Reality of the Mai Ndombe REDD+ Programme. RFUK, London, UK.
- Bertzky, M., Canosa, O., Koch, A., Llopis, P., 2021. Assessment Report: Comparative Analysis of Benefit-Sharing Mechanisms in REDD+ Programs | WWF. WWF, Gland, Switzerland.
- Blaser, W.J., Oppong, J., Hart, S.P., Landolt, J., Yeboah, E., Six, J., 2018. Climate-smart sustainable agriculture in low-to-intermediate shade agroforests. Nat. Sustain. 1, 234–239. https://doi.org/10.1038/s41893-018-0062-8
- BMU, 2020. First bilateral agreement on Article 6 cooperation signed [WWW Document]. URL https://www.carbon-mechanisms.de/en/news-details/first-bilateral-agreement-on-article-6-cooperation-signed (accessed 3.2.21).
- Bruggeman, D., Meyfroidt, P., Lambin, E.F., 2015. Production forests as a conservation tool: Effectiveness of Cameroon's land use zoning policy. Land Use Policy 42, 151–164. https://doi.org/10.1016/j.landusepol.2014.07.012
- Busch, J., 2020. Joe Biden offers \$20 billion to protect Amazon forests. Earth Innov. Inst. URL https://earthinnovation.org/2020/03/joe-biden-offers-20-billion-to-protect-amazon-forests/ (accessed 2.24.21).
- CAFI, n.d. 03. De quoi proviennent la déforestation et la dégradation des forêts en RDC ? [WWW Document]. cafi. URL http://www.cafi.org/content/cafi/fr/home/all-news/drc-forests--frequently-asked-questions/what-contributes-most-to-deforestation-and-forest-degradation-in.html (accessed 2.4.21).



- Cargill, 2020. Sustainability's influence on chocolate purchase decisions continues to grow, Cargill study finds. Amsterdam.
- Carodenuto, S., Cashmore, B., 2019. Can non-state regulatory authority improve domestic forest sustainability? Assessing interactive pathways of influence in Cameroon, in: Transnational Business Governance Interactions. Edward Elgar Publishing.
- Carodenuto, S., Fobissie, K., 2015. Operationalizing free, prior and informed consent (FPIC) for redd+: Insights from the national fpic guidelines of Cameroon. CCLR 156.
- Cashore, B., Leipold, S., Cerutti, P., Bueno, G., Carodenuto, S., 2016. Global Governance Approaches to Addressing Illegal Logging: Uptake and Lessons Learnt, in: Illegal Logging and Related Timber Trade Dimensions, Drivers, Impacts and Responses. A Global Scientific Rapid Response Assessment Report.
- Cerutti, P.O., Goetghebuer, T., Leszczynska, N., Newbery, J., Breyne, J., Dermawan, A., Mauquoy, C., Tabi, P.P., Tsanga, R., Wathelet, J.-M., 2020. Collecting Evidence of FLEGT-VPA Impacts for Improved FLEGT Communication 79.
- Cerutti, P.O., Ngouhouo Poufoun, J., Karsenty, A., Eba'a Atyi, R., Nasi, R., Fomete Nembot, T., 2016. The technical and political challenges of the industrial forest sector in Cameroon. Int. For. Rev. 18, 26–39. https://doi.org/10.1505/146554816819683690
- CfRN, 2019. REDD.plus a central registry and exchange for REDD+ results [WWW Document]. URL http://www.redd.plus/ (accessed 2.19.21).
- Chagas, T., Galt, H., Lee, D., Neeff, T., Streck, C., 2020. A close look at the quality of REDD+ carbon credits. Climate Focus, Berlin, Germany.
- CocoaLife, 2018. Cocoa Life Pioneering forest protection work in Cote D'Ivoire. A case study on Public Private Partnership. Mondelez, Abidjan, Cote d'Ivoire.
- Csillik, O., Kumar, P., Mascaro, J., O'Shea, T., Asner, G.P., 2019. Monitoring tropical forest carbon stocks and emissions using Planet satellite data. Sci. Rep. 9, 17831. https://doi.org/10.1038/s41598-019-54386-6
- da Fonseca, G.A.B., Rodriguez, C.M., Midgley, G., Busch, J., Hannah, L., Mittermeier, R.A., 2007. No Forest Left Behind. PLoS Biol. 5, e216. https://doi.org/10.1371/journal.pbio.0050216
- Dargie, G.C., Lewis, S.L., Lawson, I.T., Mitchard, E.T.A., Page, S.E., Bocko, Y.E., Ifo, S.A., 2017. Age, extent and carbon storage of the central Congo Basin peatland complex. Nature 542, 86–90. https://doi.org/10.1038/nature21048
- de Wasseige, C., Tadoum, M., Eba'a Atyi, R., Doumenge, C., 2015. Etat des forêts 2015 Forêts et changement climatique en ligne. WEYRICH EDITION: Neufchateau, Belgique.
- Deininger, K., 2003. Land Policies for Growth and Poverty Reduction. World Bank, Washington D.C., USA.
- Deklerck, V., De Mil, T., Ilondea, B.A., Nsenga, L., De Caluwé, C., Van den Bulcke, J., Van Acker, J., Beeckman, H., Hubau, W., 2019. Rate of forest recovery after fire exclusion on anthropogenic savannas in the Democratic Republic of Congo. Biol. Conserv. 233, 118–130. https://doi.org/10.1016/j.biocon.2019.02.027
- Eba'a-Atyi, R., L., M., Guizol, P., 2019. International financial flows to support nature protection and sustainable forest management in Central Africa (OFAC Brief Series No. 3).
- EFI, 2018. VPA progess and achievements: Mid-term report. European Forest Institute (EFI).
- F4B Initiative, 2020. New "nature performance bond" to tackle twin sovereign debt and biodiversity crises. MAVA Found. URL https://mava-foundation.org/news-nature-performance-bond-to-tackle-twin-sovereign-debt-and-biodiversity-crises/ (accessed 2.17.21).
- Faire du bois légal une obligation dans les marchés publics en Afrique Centrale, n.d.
- Falconer, A., Dontenville, A., Parker, C., Daubrey, M., 2017. The Landscape of REDD+ Aligned Finance in Côte d'Ivoire [WWW Document]. CPI. URL https://www.climatepolicyinitiative.org/publication/landscape-redd-aligned-finance-cote-divoire/ (accessed 2.10.21).



- FAO, 2017. From reference levels to results reporting REDD+ under the UNFCCC, Forests and Climate Change Working Paper. FAO, Rome, Italy.
- Favada, I.M., Eba'a Atyi, R., Mbonayem, L., Guizol, P., 2019. Mapping international funding flows to support forest and environmental sectors in Central Africa [WWW Document]. CIFOR. https://doi.org/10.17528/cifor/007416
- Feintrenie, L. (ed), Levang, P. (ed), Ngom, E., Ndjogui, T.E., Nkongho, R.N., Aboubakar Hayatou, I., Levang, P., Miaro, L., Feintrenie, L., 2014. Diagnostic du secteur élæicole au Cameroun: appui technique au groupe de travail sur la stratégie de développement durable de la filière palmier à huile au Cameroun [WWW Document]. URL https://agritrop.cirad.fr/578773/ (accessed 1.14.21).
- Forest Trends, 2020. State of the Voluntary Carbon Markets 2020 [WWW Document]. URL https://www.forest-trends.org/publications/state-of-the-voluntary-carbon-markets-2020-2/ (accessed 1.14.21).
- Funk, J.M., Aguilar-Amuchastegui, N., Baldwin-Cantello, W., Busch, J., Chuvasov, E., Evans, T., Griffin, B., Harris, N., Ferreira, M.N., Petersen, K., Phillips, O., Soares, M.G., van der Hoff, R.J.A., 2019. Securing the climate benefits of stable forests. Clim. Policy 19, 845–860. https://doi.org/10.1080/14693062.2019.1598838
- Gillespie, T., Ritchie, G., 2021. Nature Bonds May Be the Next Big Thing for Emerging Markets.
- Gockowski, J., Sonwa, D., 2011. Cocoa Intensification Scenarios and Their Predicted Impact on CO2 Emissions, Biodiversity Conservation, and Rural Livelihoods in the Guinea Rain Forest of West Africa. Environ. Manage. 48, 307–321. https://doi.org/10.1007/s00267-010-9602-3
- Goldstein, A., Turner, W.R., Spawn, S.A., Anderson-Teixeira, K.J., Cook-Patton, S., Fargione, J., Gibbs, H.K., Griscom, B., Hewson, J.H., Howard, J.F., Ledezma, J.C., Page, S., Koh, L.P., Rockström, J., Sanderman, J., Hole, D.G., 2020. Protecting irrecoverable carbon in Earth's ecosystems. Nat. Clim. Change 10, 287–295. https://doi.org/10.1038/s41558-020-0738-8
- Grandjean, J.-P., 2020. PPECFA TOOL AT THE SERVICE OF RESPONSIBLE MANAGEMENT OF THE FORESTS IN THE CONGO BASIN. Paris, France.
- Hargita, Y., Giessen, L., Günter, S., 2020. Similarities and Differences between International REDD+ and Transnational Deforestation-Free Supply Chain Initiatives—A Review. Sustainability 12, 896. https://doi.org/10.3390/su12030896
- Harris, N.L., Gibbs, D.A., Baccini, A., Birdsey, R.A., de Bruin, S., Farina, M., Fatoyinbo, L., Hansen, M.C., Herold, M., Houghton, R.A., Potapov, P.V., Suarez, D.R., Roman-Cuesta, R.M., Saatchi, S.S., Slay, C.M., Turubanova, S.A., Tyukavina, A., 2021. Global maps of twenty-first century forest carbon fluxes. Nat. Clim. Change. https://doi.org/10.1038/s41558-020-00976-6
- Herold, M., Carter, S., Avitabile, V., Espejo, A.B., Jonckheere, I., Lucas, R., McRoberts, R.E., Næsset, E., Nightingale, J., Petersen, R., Reiche, J., Romijn, E., Rosenqvist, A., Rozendaal, D.M.A., Seifert, F.M., Sanz, M.J., De Sy, V., 2019. The Role and Need for Space-Based Forest Biomass-Related Measurements in Environmental Management and Policy. Surv. Geophys. 40, 757–778. https://doi.org/10.1007/s10712-019-09510-6
- Hubau, W., Lewis, S.L., Phillips, O.L., Affum-Baffoe, K., Beeckman, H., Cuní-Sanchez, A., Daniels, A.K., Ewango, C.E.N., Fauset, S., Mukinzi, J.M., Sheil, D., Sonké, B., Sullivan, M.J.P., Sunderland, T.C.H., Taedoumg, H., Thomas, S.C., White, L.J.T., Abernethy, K.A., Adu-Bredu, S., Amani, C.A., Baker, T.R., Banin, L.F., Baya, F., Begne, S.K., Bennett, A.C., Benedet, F., Bitariho, R., Bocko, Y.E., Boeckx, P., Boundja, P., Brienen, R.J.W., Brncic, T., Chezeaux, E., Chuyong, G.B., Clark, C.J., Collins, M., Comiskey, J.A., Coomes, D.A., Dargie, G.C., de Haulleville, T., Kamdem, M.N.D., Doucet, J.-L., Esquivel-Muelbert, A., Feldpausch, T.R., Fofanah, A., Foli, E.G., Gilpin, M., Gloor, E., Gonmadje, C., Gourlet-Fleury, S., Hall, J.S.,



- Hamilton, A.C., Harris, D.J., Hart, T.B., Hockemba, M.B.N., Hladik, A., Ifo, S.A., Jeffery, K.J., Jucker, T., Yakusu, E.K., Kearsley, E., Kenfack, D., Koch, A., Leal, M.E., Levesley, A., Lindsell, J.A., Lisingo, J., Lopez-Gonzalez, G., Lovett, J.C., Makana, J.-R., Malhi, Y., Marshall, A.R., Martin, J., Martin, E.H., Mbayu, F.M., Medjibe, V.P., Mihindou, V., Mitchard, E.T.A., Moore, S., Munishi, P.K.T., Bengone, N.N., Ojo, L., Ondo, F.E., Peh, K.S.-H., Pickavance, G.C., Poulsen, A.D., Poulsen, J.R., Qie, L., Reitsma, J., Rovero, F., Swaine, M.D., Talbot, J., Taylor, D.M., Thomas, D.W., Toirambe, B., Mukendi, J.T., Tuagben, D., Umunay, P.M., van der Heijden, G.M.F., Verbeeck, H., Vleminckx, J., Willcock, S., Wöll, H., Woods, J.T., Zemagho, L., 2020. Asynchronous carbon sink saturation in African and Amazonian tropical forests. Nature 579, 80–87. https://doi.org/10.1038/s41586-020-2035-0
- Ickowitz, A., Sills, E., de Sassi, C., 2017. Estimating Smallholder Opportunity Costs of REDD+: A Pantropical Analysis from Households to Carbon and Back. World Dev. 95, 15–26. https://doi.org/10.1016/j.worlddev.2017.02.022
- ITTO, 2020. Tropical Timber Market Report, Tropical Timber Market Report. ITTO, Yokohama, Japan.
- Johns, T., 2015. The Impacts of International REDD+ Finance in the DRC. CLUA.
- Kabengele, V., 2020. Le financement de la REDD+ en DRC. FONAREDD, Kinshasa, DRC.
- Karsenty, A., 2020. Etude de faisabilité: réduction de la fiscalité compensée. CIRAD, Montpellier, France.
- Karsenty, A., 2019. Certification of tropical forests: A private instrument of public interest? A focus on the Congo Basin. For. Policy Econ. 106, 101974. https://doi.org/10.1016/j.for-pol.2019.101974
- Karsenty, A., 2017. The World Bank's endeavours to reform the forest concessions' regime in Central Africa: Lessons from 25 years of efforts. Int. For. Rev. 19, 64–79.
- Karsenty, A., Aubert, S., Brimont, L., Dutilly, C., Desbureaux, S., Ezzine de Blas, D., Le Velly, G., 2017. The Economic and Legal Sides of Additionality in Payments for Environmental Services: The Economic and Legal Sides of Additionality in Payments for Environmental Services. Environ. Policy Gov. 27, 422–435. https://doi.org/10.1002/eet.1770
- Karsenty, A., Ferron, C., 2017. Recent evolutions of forest concessions status and dynamics in Central Africa. Int. For. Rev. 19, 10–26. https://doi.org/10.1505/146554817822295957
- Karsenty, A., Ongolo, S., 2012. Can "fragile states" decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD mechanism. For. Policy Econ. 18, 38–45. https://doi.org/10.1016/j.forpol.2011.05.006
- Kengoum, F., Pham, T.T., Moeliono, M., Dwisatrio, B., Sonwa, D.J., 2020a. The context of REDD+ in the Democratic Republic of Congo: Drivers, agents and institutions, 2nd edition [WWW Document]. CIFOR. https://doi.org/10.17528/cifor/007793
- Kengoum, F., Pham, T.T., Sonwa, D.J., 2020b. A decade of REDD+ in a changing political environment in the Democratic Republic of Congo [WWW Document]. CIFOR. https://doi.org/10.17528/cifor/007893
- Kleinschroth, F., Healey, J.R., 2017. Impacts of logging roads on tropical forests Kleinschroth 2017 Biotropica Wiley Online Library.
- Kleinschroth, F., Laporte, N., Laurance, W.F., Goetz, S.J., Ghazoul, J., 2019a. Road expansion and persistence in forests of the Congo Basin. Nat. Sustain. 2, 628–634. https://doi.org/10.1038/s41893-019-0310-6
- Kleinschroth, F., Rayden, T., Ghazoul, J., 2019b. The Dilemma of Maintaining Intact Forest Through Certification. Front. For. Glob. Change 2. https://doi.org/10.3389/ffgc.2019.00072
- Korhonen-Kurki, K., Brockhaus, M., Bushley, B., Babon, A., Gebara, M.F., Kengoum, F., Pham, T.T., Rantala, S., Moeliono, M., Dwisatrio, B., Maharani, C., 2016. Coordination and



- cross-sectoral integration in REDD+: experiences from seven countries. Clim. Dev. 8, 458–471. https://doi.org/10.1080/17565529.2015.1050979
- Kwete, D., Binanga, A., Mukaba, T., Nemuandjare, T., Mbadu, M.F., Kyungu, M.-T., Sutton, P., Bertrand, J.T., 2018. Family Planning in the Democratic Republic of the Congo: Encouraging Momentum, Formidable Challenges. Glob. Health Sci. Pract. 6, 40–54. https://doi.org/10.9745/GHSP-D-17-00346
- Lang, C., 2021. Peru cancels its World Bank FCPF Carbon Fund programme. [WWW Document].

 URL https://redd-monitor.org/2021/02/19/peru-cancels-its-world-bank-fcpf-carbon-fund-programme/ (accessed 2.26.21).
- Lang, C., 2020. The Green Climate Fund Board discussion about Colombia's REDD+ funding proposal [WWW Document]. REDD-Monit. URL https://redd-monitor.org/2020/09/17/thegreen-climate-fund-board-discussion-about-colombias-redd-funding-proposal-concerns-about-environmental-integrity-could-have-been-funded-by-the-gcf-outside-of-the-redd-pilot-programme-re/ (accessed 2.11.21).
- Lee, D., Llopis, P., Waterworth, R., Roberts, G., Pearson, T., 2018a. Approaches to REDD+ Nesting. Lessons Learned from Country Experiences., Other Environmental Study. World Bank. https://doi.org/10.1596/29720
- Lee, D., Sanz Sanchez, M., 2017. UNFCCC Accounting for Forests: What's in and what's out of NDCs and REDD+. CLUA, Washington D.C., USA.
- Lee, D., Skutsch, M., Sandker, M., 2018b. Challenges with Measurement and Accounting of the Plus in REDD+ [WWW Document]. Clim. Land Use Alliance. URL https://www.climate-andlandusealliance.org/reports/plus-in-redd/ (accessed 1.25.21).
- Lee, Donna; Llopis, Pablo; Waterworth, Rob; Roberts, Geoff; Pearson, Tim, 2018. Approaches to REDD+ Nesting: Lessons Learned from Country Experiences. World Bank, Washington D.C., USA.
- Leonard, S., Harrould-Kolieb, E., Reyes, O., Torres, J.N., Crespo, E., 2020. Scaling-up Ecosystem-based Debt-for-Climate Swaps: From the Millions to the Billions | Heinrich Böll Stiftung. Heinrich-Böll-Stiftung, Boston.
- Lescuyer, G., Kakundika, T.M., Muganguzi Lubala, I., Shabani Ekyamba, I., Tsanga, R., Cerutti, P.O., 2019. Are community forests a viable model for the Democratic Republic of Congo? Ecol. Soc. 24. https://doi.org/10.5751/ES-10672-240106
- Lescuyer, G., Ngouhou, J., 2014. Le REDD + à la rescousse des concessions forestières ?, Working Paper. Bogor, Indonesia.
- Linhares-Juvenal, T., Neeff, T., 2017. Definitions matter: zero deforestation concepts and performance indicators, in: ETF. ETFRN, Wageningen, the Netherlands.
- Luan, B., Silva-Chávez, G., 2018. Mapping Forest Finance: A Landscape of Available Sources of Finance for REDD+ and Climate Action in Forests Forest Trends. Environmental Defense Fund, Forest Trends, Washington D.C., USA.
- Lyons-White, J., Pollard, E.H.B., Catalano, A.S., Knight, A.T., 2020. Rethinking zero deforestation beyond 2020 to more equitably and effectively conserve tropical forests. One Earth 3, 714–726. https://doi.org/10.1016/j.oneear.2020.11.007
- Maniatis, D., Evans, T., Wang, S., Todd, K., 2019. HFLD countries and areas: Current treatment and Options to Enhance Support. UNDP, WCS, Paramaribo, Surinam.
- Martius, Christopher, Angelsen, Arild, Larson, Anne M, Thuy, P.T., Sonwa, D.J., Belcher, B., 2018. Pathway to impact. Is REDD+ a viable theory of change?, in: Angelsen, A., Martius, C., Sy, V. de, Duchelle, A.E., Larson, A.M., T.T, P. (Eds.), Transforming REDD+: Lessons and New Directions. CIFOR, Bogor, Indonesia, pp. 17–28.
- Mayaux, P., Tadoum, M., Wasseige, C.D., Atyi, R.E., Billand, A., Nasi, R., Defourny, P., Bayol, N., Cassagne, B., Lescuyer, G., Cerrutti, P., Hansen, M., Bakanseka, J.-M., Mfuka, C.,



- Mbemba, M., Steil, M., Caudill, H., Belanger, L., Bodart, C., Achard, F., Stibig, H.-J., Marelli, A., Lupi, A., Roggeri, P., Justice, C., Devers, D., Ernst, C., Saracco, F., Flynn, J., Besacier, C., Falkenberg, C.-M., Schipulle, H., Mbitikon, R., 2009. The Observatory for Forests of Central Africa 4.
- Mbzibain, A., Habiba, M.M., Baur, D., Jara-Cazares, C., 2021. Experiences from Frontline Forest Communities: Covid-19 impacts on Indigenous Peoples and Local Communities, women and forest and wildlife illegality in the Congo Basin. European Union and Foreign, Commonwealth & Development Office, Wolverhampton, UK.
- MECNT, 2012. Etude qualitative sur les causes de la déforestation et de la dégradation des forêts en République Démocratique du CongoM. MECNT, Kinshasa, DRC.
- Megevand, C., Mosnier, A., Hourticq, J., Sanders, K., Doetinchem, N., Streck, C., 2013. Deforestation Trends in the Congo Basin: Directions in Development Environment and Sustainable Development. La Banque Mondiale, Washington D.C.
- Meyfroidt, P., 2018. Trade-offs between environment and livelihoods: Bridging the global land use and food security discussions. Glob. Food Secur. 16, 9–16. https://doi.org/10.1016/j.gfs.2017.08.001
- Meyfroidt, P., 2016. Approaches and terminology for causal analysis in land systems science. J. Land Use Sci. 11, 501–522. https://doi.org/10.1080/1747423X.2015.1117530
- Molinario, G., Hansen, M.C., Potapov, P.V., 2015. Forest cover dynamics of shifting cultivation in the Democratic Republic of Congo: a remote sensing-based assessment for 2000–2010. Environ. Res. Lett. 10, 094009. https://doi.org/10.1088/1748-9326/10/9/094009
- Mosnier, A., Mant, R., Pirker, J., Bodin, B., Makoudjou, A., Awono, E., Bokelo, D., Tonga, P., Ndinga, R., Havlik, P., Bocqueho, G., Maukonen, P., Obersteiner, M., Kapos, V., Tadoum, M., 2015. Modelling future land use changes in Central Africa 2000-2030. A report by the REDD-PAC project. UNEP-WCMC, IIASA, COMIFAC. https://doi.org/10.22022/REDD/08-2018.13773
- Ndjondo, M., Gourlet-Fleury, S., Manlay, R.J., Engone Obiang, N.L., Ngomanda, A., Romero, C., Claeys, F., Picard, N., 2014. Opportunity costs of carbon sequestration in a forest concession in central Africa. Carbon Balance Manag. 9, 4. https://doi.org/10.1186/s13021-014-0004-3
- Neeff, T., van der Linden, M., Moon Herrick, 2020. Choices in Quantifying Carbon for Jurisdictional REDD+. The World Bank, Washington D.C., USA.
- Ngoma, H., Angelsen, A., Carter, S., Román-Cuesta, R.M., 2018. Climate-smart agriculture: Will higher yields lead to lower deforestation?, in: Transforming REDD+: Lessons and New Directions. CIFOR, Bogor, Indonesia.
- Niether, W., Jacobi, J., Blaser, W.J., Andres, C., Armengot, L., 2020. Cocoa agroforestry systems versus monocultures: a multi-dimensional meta-analysis. Environ. Res. Lett. 15, 104085. https://doi.org/10.1088/1748-9326/abb053
- OFAC, 2019. OFAC Analytical Platform [WWW Document]. URL https://www.observatoire-comifac.net/analytical_platform (accessed 2.2.21).
- Ongolo, S., Karsenty, A., 2015. The Politics of Forestland Use in a Cunning Government: Lessons for Contemporary Forest Governance Reforms. Int. For. Rev. 17, 195–209. https://doi.org/10.1505/146554815815500561
- Ordway, E.M., Asner, G.P., Lambin, E.F., 2017. Deforestation risk due to commodity crop expansion in sub-Saharan Africa. Environ. Res. Lett. 12, 044015. https://doi.org/10.1088/1748-9326/aa6509
- Pacheco, P., Gnych, S., Dermawan, A., Komarudin, H., Okarda, B., 2017. The palm oil global value chain: Implications for economic growth and socialand environmental sustainability [WWW Document]. CIFOR. https://doi.org/10.17528/cifor/006405



- Pacheco, P., Mo, K., Shapiro, A., Dudley, N., Aguilar-Amuchastegui, N., Ling, P.Y., Anderson, C., Marx, A., 2021. Deforestation Fronts. WWF International, Gland, Switzerland.
- Piabuo, S.M., Foundjem-Tita, D., Minang, P.A., 2018. Community forest governance in Cameroon: a review. Ecol. Soc. 23. https://doi.org/10.5751/ES-10330-230334
- Pirker, J., Mosnier, A., Nana, T., Dees, M., Momo, A., Muys, B., Kraxner, F., Siwe, R., 2019. Determining a Carbon Reference Level for a High-Forest-Low-Deforestation Country. Forests 10, 1095. https://doi.org/10.3390/f10121095
- Potapov, P., Li, X., Hernandez-Serna, A., Tyukavina, A., Hansen, M.C., Kommareddy, A., Pickens, A., Turubanova, S., Tang, H., Silva, C.E., Armston, J., Dubayah, R., Blair, J.B., Hofton, M., 2021. Mapping global forest canopy height through integration of GEDI and Landsat data. Remote Sens. Environ. 253, 112165. https://doi.org/10.1016/j.rse.2020.112165
- Puliti, S., Breidenbach, J., Astrup, R., 2020. Estimation of Forest Growing Stock Volume with UAV Laser Scanning Data: Can It Be Done without Field Data? Remote Sens. 12, 1245. https://doi.org/10.3390/rs12081245
- Quétier, F., De Wachter, P., Dessard, H., Gersberg, M., Nzene Halleson, D., Nzita Nganga di Mavambu, M., Ndong Ndoutoume, E., Feintrenie, L., Garcia, C.A., 2015. Biodiversity offsets: opportunities and challenges for managing cumulative impacts of large-scale land-based investments on Africa's forest landscapes and their biodiversity, in: Linking Land Tenure and Use for Shared Prosperity. Presented at the Land and Poverty Conference, s.n., Washington D.C., USA.
- Reiche, J., Mullissa, A., Slagter, B., Gou, Y., Tsendbazar, N.-E., Odongo-Braun, C., Vollrath, A., Weisse, M.J., Stolle, F., Pickens, A., Donchyts, G., Clinton, N., Gorelick, N., Herold, M., 2021. Forest disturbance alerts for the Congo Basin using Sentinel-1. Environ. Res. Lett. 16, 024005. https://doi.org/10.1088/1748-9326/abd0a8
- Reinecke, S., Weber, A.-K., Michaelowa, A., Schnepf, S., Christensen, J., 2020. Germany's Contribution to the Forest and Climate Protection Programme REDD+: synthesis study. Deutsches Evaluierungsinstitut der Entwicklungszusammenarbeit (DEval), Bonn.
- Republic of Congo, 2018. Emission Reductions Program in Sangha and Likouala, Republic of Congo. Republic of Congo, Washington D.C., USA.
- République Gabonaise, 2015. Contributionprévuedéterminéeau niveau national –Conférence des Parties 21. Libreville.
- Ross, A., 2020. Congo Rep. debt could be one-third higher than IMF estimate campaign group. Reuters.
- Rossi, V., Claeys, F., Bastin, D., Gourlet-Fleury, S., Guizol, P., Eba'a-Atyi, R., Sonwa, D.J., Lescuyer, G., Picard, N., 2017. Could REDD+ mechanisms induce logging companies to reduce forest degradation in Central Africa? J. For. Econ. 29, 107–117. https://doi.org/10.1016/j.jfe.2017.10.001
- Saatchi, S., Xu, A., Meyer, V., Ferraz, A., Yan, Y., Shapiro, A., WITTIGER, L., Lee, M., Tshibasu, E., Banks, N., 2017. Carbon Map of DRC. High Resolution Carbon Distribution in Forests of Democratic Republic of Congo. niversity of California, Los Angeles.
- Samndong, R.A., Bush, G., Vatn, A., Chapman, M., 2018. Institutional analysis of causes of deforestation in REDD+ pilot sites in the Equateur province: Implication for REDD+ in the Democratic Republic of Congo. Land Use Policy 76, 664–674. https://doi.org/10.1016/j.landusepol.2018.02.048
- Sandker, M., Carrillo, O., Leng, C., Lee, D., d'Annunzio, R., Fox, J., 2021. The Importance of High—Quality Data for REDD+ Monitoring and Reporting. Forests 12, 99. https://doi.org/10.3390/f12010099
- Sanial, E., Lescuyer, G., Ruf, F., Tsanga, R., 2019. Relevance of a FLEGT-like approach for West and Central African cocoa sustainability [WWW Document]. CIFOR. https://doi.org/10.17528/cifor/007382



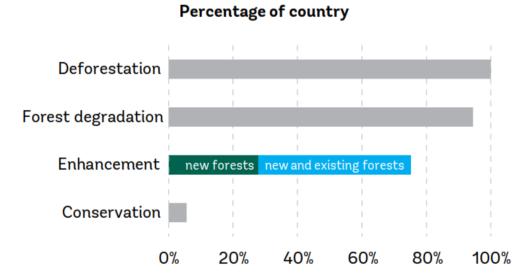
- Sartoretto, E., Henriot, C., Bassalang, M.M., Nguiffo, S., 2017. How existing legal frameworks shape forest conversion to agriculture: a study of the Congo Basin. FAO Leg. Pap.
- Schroeder, H., Di Gregorio, M., Brockhaus, M., Pham, T.T., 2020. Policy learning in REDD+ Donor Countries: Norway, Germany and the UK. Glob. Environ. Change 63, 102106. https://doi.org/10.1016/j.gloenvcha.2020.102106
- Schroth, G., Läderach, P., Martinez-Valle, A.I., Bunn, C., Jassogne, L., 2016. Vulnerability to climate change of cocoa in West Africa: Patterns, opportunities and limits to adaptation. Sci. Total Environ. 556, 231–241.
- Sellers, S., 2017. Family planning and deforestation: evidence from the Ecuadorian Amazon. Popul. Environ. 38, 424–447. https://doi.org/10.1007/s11111-017-0275-1
- Shapiro, A.C., Aguilar-Amuchastegui, N., Hostert, P., Bastin, J.-F., 2016. Using fragmentation to assess degradation of forest edges in Democratic Republic of Congo. Carbon Balance Manag. 11, 11. https://doi.org/10.1186/s13021-016-0054-9
- Shapiro, A.C., Grantham, H.S., Aguilar-Amuchastegui, N., Murray, N.J., Gond, V., Bonfils, D., Rickenbach, O., 2021. Forest condition in the Congo Basin for the assessment of ecosystem conservation status. Ecol. Indic. 122, 107268. https://doi.org/10.1016/j.ecolind.2020.107268
- Sills, E.O., Atmadja, S., de Sassi, C., Duchelle, A., Kweka, D., Pradnja Resosudarmo, I.A., Sunderlin, W., 2014. REDD + on the ground: a case book of subnational initiatives across the globe. Centre for International Forest Research (CIFOR), Bogor, Indonesia.
- Simmons, B.A., Ray, R., Yang, H., Gallagher, K.P., 2021. China can help solve the debt and environmental crises. Science 371, 468–470. https://doi.org/10.1126/science.abf4049
- Skutsch, M., Paneque-Gálvez, J., Ghilardi, A., Balderas Torres, A., Morfin-Rios, J., Michel-Fuentes, J.M., Carrillo, O., Ross, D., 2017. Adapting REDD+ policy to sink conditions. For. Policy Econ. 80, 160–166. https://doi.org/10.1016/j.forpol.2017.03.016
- Stoll, L., Niemenak, N., Bisping, B., Lieberei, R., 2017. German cacao of Cameroon New facts on a traditional variety fallen into oblivion. J. Appl. Bot. Food Qual. 90, 274–279. https://doi.org/10.5073/JABFQ.2017.090.034
- Streck, C., 2020. Who owns REDD+? carbon markets, carbon rights and entitlements to REDD+ finance. Forests 11, 1–15. https://doi.org/10.3390/f11090959
- Supee, T., Raballand, G., 2008. Transport Prices and Costs in Africa: A Review of the Main International Corridors, Directions in Development. The World Bank, Washington D.C., USA. https://doi.org/10.1596/978-0-8213-7650-8
- Topa, G., Karsenty, A., Megevand, C., Debroux, L., 2010. Forêts tropicales humides du Cameroun Une décennie de réformes Environnement et développement durable. Washington D.C., US.
- TOTAL, 2021. Developing activities that contribute to society's carbon neutrality [WWW Document]. Total.com. URL https://www.total.com/group/commitment/climate-change/carbon-neutrality (accessed 2.10.21).
- Tritsch, I., Le Velly, G., Mertens, B., Meyfroidt, P., Sannier, C., Makak, J.-S., Houngbedji, K., 2020. Do forest-management plans and FSC certification help avoid deforestation in the Congo Basin? Ecol. Econ. 175, 106660. https://doi.org/10.1016/j.ecolecon.2020.106660
- Tyukavina, A., Hansen, M.C., Potapov, P., Parker, D., Okpa, C., Stehman, S. V., Kommareddy, I., Turubanova, S., 2018. Congo Basin forest loss dominated by increasing smallholder clearing. Sci. Adv. 4, eaat2993. https://doi.org/10.1126/sciadv.aat2993
- Umunay, P.M., Gregoire, T.G., Gopalakrishna, T., Ellis, P.W., Putz, F.E., 2019. Selective logging emissions and potential emission reductions from reduced-impact logging in the Congo Basin. For. Ecol. Manag. 437, 360–371. https://doi.org/10.1016/j.foreco.2019.01.049
- Westerlaan, P., 2019. Strengthening the business case for sustainable forest management. Tropenbos International, Wageningen, the Netherlands.



- Windey, C., 2020. Abstracting Congolese forests: mappings, representational narratives, and the production of the plantation space under REDD+. IOB Discuss. Pap., Universiteit Antwerpen, Institute of Development Policy (IOB).
- World Bank, 2020. Doing Business [WWW Document]. World Bank. URL https://www.doingbusiness.org/en/doingbusiness (accessed 2.26.21).
- World Bank, 2019. Benefit Sharing at Scale: Good Practices for Results-Based Land Use Programs. World Bank, Washington D.C., USA.
- WWF, 2011. US\$28.5 million Debt Swap for Forest Conservation in Borneo | WWF [WWW Document]. URL https://wwf.panda.org/?202126/US285-million-Debt-Swap-for-Forest-Conservation-in-Borneo (accessed 2.10.21).
- Xu, L., Saatchi, S.S., Shapiro, A., Meyer, V., Ferraz, A., Yang, Y., Bastin, J.-F., Banks, N., Boeckx, P., Verbeeck, H., Lewis, S.L., Muanza, E.T., Bongwele, E., Kayembe, F., Mbenza, D., Kalau, L., Mukendi, F., Ilunga, F., Ebuta, D., 2017. Spatial Distribution of Carbon Stored in Forests of the Democratic Republic of Congo. Sci. Rep. 7, 15030. https://doi.org/10.1038/s41598-017-15050-z
- Xuan To, P., Thi Cam, C., Le Huy, T., 2020. Vietnam's Import of Tropical Timber and the Implementation of the Vietnam Timber Legality Assurance System: Africa, Cambodia, Laos, and Papua New Guinea. Forest Trends. URL https://www.forest-trends.org/publications/vietnams-import-of-tropical-timber-and-implementation-timber-legality-assurance-system/ (accessed 2.15.21).
- Yanai, R., Wayson, C., Lee, D., Espejo, A., Campbell, J.L., Green, M.B., Zukswert, J.M., Yoffe, S., Aukema, J., Lister, A., Kirchner, J.W., Gamarra, J.G.P., 2020. Improving uncertainty in forest carbon accounting for REDD+ mitigation efforts. Environ. Res. Lett. https://doi.org/10.1088/1748-9326/abb96f
- zu Ermgassen, S.O.S.E., Utamiputri, P., Bennun, L., Edwards, S., Bull, J.W., 2019. The Role of "No Net Loss" Policies in Conserving Biodiversity Threatened by the Global Infrastructure Boom. One Earth 1, 305–315. https://doi.org/10.1016/j.oneear.2019.10.019



ANNEX



Sum of annual historical emissions / removals for the REDD+ activities across all country programs



Figure A 1: Countries' reporting of REDD+ activities (top) and associated projected emissions reductions (bottom) for results-based payments under the FCPF

Source: Neeff et al. (2020)



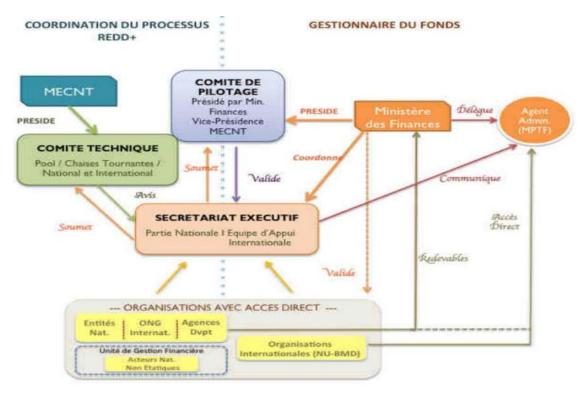


Figure A 2: The governance and fiduciary structure of FONAREDD

Source: Kabengele (2020)



Table A 1: Some Advantages and Challenges of Monetary and Non-monetary Benefits

ADVANTAGES	CHALLENGES							
Monetary benefits								
 Efficient to administer if payments are made directly to bank accounts Transparent Quick delivery Low transaction costs Can ensure that all beneficiaries receive their share of benefits Empowers beneficiaries to decide on their own priorities for use of funds If large enough, can be a significant incentive to produce the desired behavior 	 Difficult where target beneficiaries do not have bank accounts and would have difficulty accessing the cash Hard to target benefits for specific activities—for example, for capacity building and for social services Potential for mismanagement of community funds Require robust local governance structures and financial management for community funds If smaller benefits packages are divided among many individuals, the incentive realized on a per capita basis may not be perceived as significant 							
Non-monetary benefits								
 Easier to target benefits to support specific activities and capacity building, such as training for revenue-generating activities or seedlings for plantations Can ensure that all community members benefit, depending on the type of benefit 	 Delivery of non-monetary benefits can be logistically challenging Delivery of specialized training or inputs can require skills or inputs not available locally, thereby increasing costs Significant support may be needed to facilitate community agreement on priorities and ensure effective delivery of the benefits, often requiring an intermediary Transaction costs can be high Delivery of benefits can be slow Benefits delivered may not be successful if they do not respond to local interests, or have not been well conceived or implemented—for ex- 							

Source: World Bank (2019)

ample, if the implementing organization does

 The amounts spent and value of the benefits may not be transparent, causing mistrust
 Benefits may need support from and coordination across government departments to be ef-

not have the required skills

fective and sustainable

Table A 2: Considerations of critical issues in REDD+ reporting standards [note: this reflects the situation in 2020 and is partly outdated with current revisions of VSC JNR and ART/TREES]

	Forest projects		Jurisdictional programs		
	VCS stand-alone	VCS nested	VCS JNR	Carbon Fund	ART / TREES
Crediting baselines	There is evidence of baseline inflation in some avoided deforestation projects. For other types of projects, such as reforestation, baseline setting is more straightforward because the counterfactual case is clearer.	Although not tested yet, nesting can be expected to reduce the risk of baseline inflation. This is particularly true for avoided deforestation where nested projects are provided a risk-adjusted share of the jurisdictional reference level.	No experience yet with the JNR standard, but the use of a historical average baseline will be conservative where deforestation is rising. Where a trend baseline is used, it may not always be conservative.	Includes rigid rules and oversight to avoid gaming baselines. HFLD countries may set a baseline well above historical average emissions that may not always be conservative.	Not tested yet but includes rigid rules to avoid gaming baselines. The short historical period likely better reflects BAU than the longer period currently used by the CF and JNR. No adjustments allowed.
Additionality	For avoided deforestation projects additionality is straightforward to demonstrate. Additionality is harder to demonstrate for financially attractive activities (e.g. commercial reforestation).	The additionality test for nested projects is not different than for regular VCS projects.	Assumed to be reflected in a conservative baseline, plus requirement to implement new policies or actions.	Assumed to be reflected in a conservative baseline; there is also a requirement to implement new (or enhanced) policies or actions.	Assumed to be reflected in a conservative baseline, without other requirements.
Permanence	Prescribes the allocation of a risk-adjusted percentage of carbon credits to go into a buffer account, which is currently oversubscribed with credits.	Based on experience for stand-alone VCS projects, the allocation of carbon credits to the buffer is expected to be successfully managed.	Too early to tell. No track-record. Since only a moderate number of programs can be expected in the buffer more stringency than for projects is needed. Also, a short crediting period (maximum of 30 years) may entail greater risk of reversals post-crediting period.	Too early to tell. No track-record. No assurance that reversals will be compensated once the ERPA period has lapsed.	Too early to tell. No track-record. Compensation is required by the standard, but a country also has the option to simply leave the standard before fully compensating reversals.
Leakage	Leakage risks can be high for certain forest project types (such as avoided deforestation); projects must monitor, quantify and deduct for multiple types of leakage.	Similar to VCS stand-alone projects but provides added confidence in leakage management since performance at the higher scale is measured and reported.	Requires the assessment of multiple types of leakage risk, plus quantification and deductions for leakage.	Requires the assessment of leakage risk, and addressing risk in program design, but no quantification or deductions for leakage.	Assumes leakage is largely a function of area coverage (and makes deductions accordingly).
Quantification and uncertainty	Some methodologies appear incomplete in their estimation of error combined with expected high uncertainties.	Expected to be similar to stand alone projects, i.e. potentially incomplete unless VCS adds additional requirements.	Current guidance appears incomplete in the estimation of error combined with expected high uncertainties.	Strong for the reporting of aggregate error of the emission reduction, but lenient on allowable uncertainty.	Includes conservative discounts on the baseline and crediting periods, but not for aggregate error of emission reductions.

Source: Chagas et al. (2020)







Species diversity

Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.

HCV 2



Landscape-level ecosystems, ecosystem mosaics and IFL

Large landscape-level ecosystems, ecosystem mosaics and Intact Forest Landscapes (IFL) that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.

HCV 3



Ecosystems and habitats

Rare, threatened, or endangered ecosystems, habitats and refugia.

HCV 4



Ecosystem services

Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.

HCV 5



Community needs

Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc...), identified through engagement with these communities or indigenous peoples.

HCV 6



Cultural values

Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.

Figure A 3: Full definitions of the six HCV categories

Source: HCV network, 2019; https://hcvnetwork.org/wp-content/uploads/2019/07/HCV-Screening-summary.pdf



Table A 3: The state of play of Central African countries' REDD+ engagement with the FCPF

Country	Readiness ele- ments completed	FCPF preparation funding received	REDD+ pilots	Comments
	menes completed	(year and amount in USD)		
Burundi	-	-	-	-
Cameroon	R-PIN, R-PP, Strategy	- 2010: USD 0.2 M - 2012: USD 3.6 M	Year submitted: - Area (M ha): 9.34 Carbon (Mt): 11.95 Forecasted RPB (M USD): 0.65	Letter of intent signed; ER-PD elaboration stalled due to lack of political com- mitment
Congo	R-PIN, R-PP, Strategy	- 2009: USD 0.2 M - 2012: USD 3.4 M - 2015: USD 5.2 M	Year submitted: 2018 Area (M ha): 12.35 Carbon (Mt): 11.7 Forecasted RPB (M USD): 0.65	Letter of intent signed; ER-PD elaborated; ER-PA under negotiation since 2018
Gabon	R-PIN, R-PP	2019: USD 1.95 M	Year submitted: - Area (M ha): 15.09 Carbon (Mt): tbd Forecasted RPB (M USD): tbd	R-PP submitted and revised; ER- PD under devel- opment
Equatorial Guinée *	-	-	-	-
Central African Republic	R-PIN, R-PP	– 2009: USD 0.2 M	No pilot devel- oped yet	Strategy under development
Democratic Republic of the Congo	R-PIN, R-PP, Strategy	- 2009: USD 0.2 M - 2010: USD 3.4 M - 2012: USD 0.2 M	Year submitted: 2018 Area (M ha): 12.8 Carbon (Mt): 10 Forecasted RPB (M USD): 0.65	ERPA Signed. The ER-P covers the Maï Ndombé province only
Rwanda*	-	-	-	-
Sao Tome and Principe*	-	-	-	-
Tchad*	-	-	-	-

Source: modified from OFAC, Etat des forêts 2020, forthcoming; *country has not engaged with the FCPF.