

Regional Assessment 2022

Tracking progress towards forest goals in the Congo Basin

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Executive Summary

The six countries of the Congo Basin – Cameroon, Central African Republic, Gabon, Democratic Republic of the Congo (DRC), and Republic of the Congo – hold the second-largest tropical forest in the world and the largest intact forest landscape. The Congo Basin is an important carbon sink for regional and global ecological and climate regulation, a huge biodiversity hotspot, and home to 60 million people for whom the forests represent essential natural resources and cultural heritage. Indigenous peoples (IPs) and local communities (LCs) in the Congo Basin uniquely rely on and sustainably manage these ecosystems.

Keeping global warming below 1.5°C by the end of the century means achieving a balance between greenhouse gas emissions and removals over the next 30 years. This requires not only emission reductions in all economic sectors, but also the preservation and enhancement of forest carbon sinks. Over the 2001-19 period, the Congo Basin's forests presented the largest net carbon sink in the tropics, removing 0.61 net gigatons of carbon dioxide equivalents (GtCO₂e) per year. The conservation, restoration, and sustainable use of the Congo Basin forests must be at the center of regional and global climate efforts.

At COP26 in 2021, more than 140 countries, representing more than 90 percent of the world's forest cover, committed to ending deforestation and land degradation globally by 2030 through the Glasgow Leaders' Declaration on Forests and Land Use. All six countries in the region have signed this Declaration, demonstrating awareness of the need to protect forests globally and in the Congo Basin. Additionally, international donors have recognized the significant role of Congo Basin forests and committed to the distribution of USD 1.5 billion to countries in the Congo Basin region between 2021 and 2025 to support the protection and sustainable management of forests.

These commitments, although positive, are not yet followed by real actions. The 2022 global Forest Declaration Assessment showed that, one year after COP26, 6.8 million hectares of forests were lost globally, leading to the emission of 3.9 billion metric tons of greenhouse gases. Only eight years remain to achieve the global twin goals of halting and reversing deforestation by 2030. Efforts to monitor and track the implementation of forest pledges and actions are necessary to hold actors accountable. This first regional report of the Forest Declaration Assessment provides an overview of current trends and actions in the Congo Basin to enable future monitoring of actions toward the 2030 forest goals.

The Congo Basin region has had historically low deforestation rates compared to other tropical forest regions. However, in 2021 forest loss in the Congo Basin jumped up compared to preceding years. Forest degradation and fragmentation pose further risks to the world's largest remaining intact forest landscape.

The countries of the Congo Basin face the challenge of reconciling development objectives with commitments to preserve forests. Deforestation rates have been historically low in the region due to a combination of socio-economic factors, but deforestation and forest degradation in core intact forests (forests with high ecological and climate biodiversity) is ongoing. While deforestation rates in the Congo Basin showed a downward trend from 2015-20, the Basin still saw 2.2 million hectares of forest loss and 1.5 million hectares of forest degradation in that period.

Deforestation in the Congo Basin increased in 2021 by 30,000 hectares (or 4.9 percent) compared to the 2018-20 period, reaching a total of 636,000 hectares. To achieve the global goal of ending deforestation by 2030, a reduction in forest cover loss of 10 percent per year between 2020 and 2030 is needed in all countries. Based on 2021 trends, only Gabon and Republic of the Congo are currently aligned with this trajectory, while the other four Congo Basin countries are not on track. Among the four, Cameroon and Central African Republic have the highest increase in forest loss in 2021 compared to the baseline period.

In addition to deforestation, forest degradation and fragmentation pose risks to the Congo Basin's intact forest landscapes, weakening the integrity of these forests and their ecological processes. From 2000-16, the share of intact forests in the region decreased from 78 percent to 67 percent, representing a degraded area of about 23 million hectares. Forest degradation and fragmentation dynamics can be precursors to deforestation. From 2015-20, it is estimated that 11 percent of regional deforestation (about 650,000 ha) occurred in forests that were fragmented before undergoing permanent conversion.

Industrial mining, logging, and commercial agriculture pose the gravest risks to core intact forests by opening primary forest areas to development and deforestation. While subsistence agriculture is the most prevalent direct driver of deforestation in the region, it often takes place in already-fragmented areas. Lack of tenure security for local communities, governance problems, weak institutions, and lack of law enforcement exacerbates encroachment and direct pressures on forests.

Multiple factors drive deforestation and forest degradation in the Congo Basin. The combination of small-scale agriculture that drives and follows construction of roads and settlements is the largest contributor to deforestation and forest degradation in the Congo Basin. From 2015-20, subsistence agriculture by small-scale farmers in rural areas was the main driver of deforestation and degradation in the Congo Basin. However, as noted above, subsistence agriculture mostly impacts secondary and fragmented forests. Core primary forests are only accessible with heavy and expensive machinery, such as that used for logging and mining. The presence of these activities

opens previously inaccessible intact or remote forest areas to other forest-risk activities, such as the establishment of settlements, roads, and agriculture. In the same 2015-20 period, the rate of deforestation driven by industrial activities such as mining and agriculture remained steady and artisanal forestry showed an increasing trend. However, the impacts of commercial activities in intact core forests have a greater impact on carbon stocks and biodiversity than agricultural conversion of fragmented and secondary forests.

Governments in the Congo Basin are making noteworthy efforts to combat deforestation in the region. Economic growth and poverty alleviation are central policy priorities for those countries, which can put forests at risk when not aligned with forest goals. Applying a forest lens to macro-economic development plans can help countries achieve sustainable development and improve rural livelihoods while protecting forest ecosystems. Congo Basin countries require the support of industrial countries, the private sector, and philanthropy to invest in sustainable use and management of these forests.

Governments have considerable influence over the use of forests, land, and resources. They can align macro-economic and development priorities with forest goals by making strategic decisions for economic sectors to minimize forest clearance and degradation, at home and abroad. Aligning forest goals and reconciling tradeoffs with other goals does not mean that all deforestation can be stopped. It means that forests' contributions and services for current and future generations are carefully valued and regenerated.

In the Congo Basin, governments have made noteworthy efforts to put in place policies, regulations, and programs to combat deforestation in recent years. Countries have legal texts that regulate the management and protection of forests as well as laws and plans that regulate land use and limit forest loss in the Congo Basin. Positively, strengthening land tenure security and recognizing the rights of IPs and LCs has been a central goal of many public policy developments. There is also a growing consideration of gender issues in forest policy. However, the lack of implementation, enforcement, and cross-sectoral alignment hinders implementation and impact of forest policies.

The following actions will be important in achieving forest goals:

• Countries in the Congo Basin have ambitious economic growth plans, which rely on industrial economic activities and large-scale development that can negatively impact forests. Responsible forest use is needed to reconcile poverty alleviation for local populations with economic development and forest conservation. Current economic development plans are inconsistent with sustainable forest use. sectoral laws, whose guidelines are sometimes in contradiction with forest goals, is another obstacle to the implementation of forest policies. Sectoral laws and regulations that contradict forest

policies are other obstacles to the implementation of forest goals. There is a significant overlap between concessions for extractive activities and intact forest landscapes.

- Weaknesses in forest governance exacerbate encroachment into primary forests and increase prevalence of illegality in the forest sector. Strengthening human, operational, and financial capacity to monitor deforestation is an important step toward enforcing laws and reducing illegality. Efforts are underway by some governments to build capacity to monitor deforestation at the national level, but their impacts on law enforcement and illegality are not yet clear. Independent civil society monitoring initiatives facilitate collaboration between local actors and access to technology to track and report on forest activities. Deforestation alerts issued through accessible and inexpensive remote sensing technologies have proven to be effective in strengthening monitoring and enforcement of forest protection measures, but such systems require scaling up at the national level.
- Securing land tenure for forest communities is central to combatting deforestation, and some countries in the Congo Basin have taken promising action. Scaling up of rights and the participation of local actors in forest governance can improve forest outcomes. Land tenure security is a fundamental prerequisite for combating deforestation in a sustainable and equitable manner. Decentralization of forest management to the local level can improve forest governance while supporting sustainable rural development. The DRC and the Republic of the Congo have established policies and laws that recognize and protect the rights of IPs and LCs. Community forest laws are in place in Cameroon, Gabon, the Republic of the Congo, and the DRC. Other laws and plans related to land use planning are in place or under development. The impact of these laws and policies on deforestation and forest degradation will depend on the involvement of affected communities in implementation.
- Private sector actors have made zero-deforestation commitments in commodity supply chains, but effectiveness in reducing deforestation is mixed. Despite an increase in the number of zero-deforestation commitments made by private actors in recent years, private sector activities are insufficient to halt deforestation and require coherent policy frameworks and governance structures to strengthen the effectiveness.
- Forest goals in the Congo Basin are underfinanced by governments and the private sector. Global finance needs to achieve forest goals are estimated at USD 460 billion. While there is no estimate of investments needed specifically for the Congo Basin, as the second largest forest and largest forest carbon sink in the world, it is certain that the protection and sustainable use of Congo Basin forests will require a significant portion of that forest finance. Recent high-level commitments only meet a fraction of the required finance. The joint declaration for the Congo Basin by a group of 12 donors including the

European Commission, the United Kingdom, the United States, and the Bezos Earth Fund calls for the distribution of USD 1.5 billion to the six Congo Basin countries between 2021 and 2025. In addition, USD 465 million is planned through letters of intent signed between the Central Africa Forest Initiative (CAFI) and the DRC, Republic of the Congo, and Gabon. These financial pledges are rarely accompanied by quantifiable and transparent targets.

An evaluation of progress in the fight against deforestation in the Congo Basin will require:

- The active participation of non-state partners, particularly civil society, to act as watchdogs
 and advocate for the integration of the views of vulnerable groups in forest decisions, the
 creation of jobs and income, and the sustainable management of forests. The countries of
 the Congo Basin have developed laws and processes to enable civil society participation in
 forest decision making, but implementation challenges persist. Similarly, the inclusion of
 gender considerations in national laws and policies has had limited implementation.
 Despite the lack of resources and political support for participation of civil society, women,
 and other vulnerable groups, civil society organizations remain at the heart of advocacy for
 positive developments in forest actions and the protection and sustainable use of forests in
 Congo Basin countries.
- The implementation of systems and indicators to monitor deforestation and the impact of forest policies, particularly through the characterization and harmonization of forest and deforestation terminology.
- An evaluation of the implementation of monitoring strategies and mechanisms, approaches, and results. The implementation of evaluations such as the Forest Declaration Assessment will allow for periodic reviews of these advances.
- A great deal of research and monitoring work exists at the regional level. The *Observatoire des Forêts d'Afrique Centrale* (OFAC), plays a particularly important role in the collection and centralization of regional forestry data and publishes regular reports on scientific knowledge on forestry issues, including proposals for action.

This first regional report of the *Forest Declaration Assessment* is intended to complement the many ongoing efforts and initiatives in the region. By establishing an inventory of existing and developing public and private policies on a wide range of issues related to forest protection, restoration, and sustainable use, the regional report can serve as a reference for assessing future progress and implementation of the actions identified. The Forest Assessment partners welcome comments and feedback from all stakeholders on this work in progress.

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100 INTRODUCTION

Forests are critical ecosystems for humanity. These reservoirs of carbon, biodiversity, and resources provide a multitude of ecosystem goods and services that many communities depend on to meet their daily needs. Forests also play an important role in regulating the global climate. Land degradation and deforestation – and the associated loss of biodiversity – directly harm ecosystems, humans, and their ability to adapt to global warming.¹

The preservation and sustainable management of forests has become a priority issue within the international community, as indicated by the many commitments made at the 26th Conference of the Parties (COP26) of the United Nations Framework Convention on Climate Change (UNFCCC) in November 2021. These issues are also reflected at national and sub-national levels in the goals and strategies of many governments and local authorities. There is a growing desire to align public policies, including socio-economic policies, with environmental objectives and to integrate solutions based on the preservation, management, and sustainable use of nature. Actions to reduce deforestation, increase reforestation, and improve the conservation of natural ecosystems also have many synergies with the Sustainable Development Goals.²

The Forest Declaration Assessment and its evaluation framework

The Forest Declaration Assessment is an independent network of research, academic, and civil society organizations established in 2015 to collectively conduct monitoring of global progress toward the goals of protecting and sustainably managing forests (or *forest goals* in this report). Until 2021, this monitoring took the form of annual reports assessing progress toward the *New York Declaration on Forests* (NYDF) goals of halving deforestation by 2020 and halting it by 2030.³ The declaration, signed in 2014, has been endorsed by more than 200 governments, companies, NGOs and Indigenous peoples' representatives. All reports are available at https://forestdeclaration.org/.

The annual assessment of the *Forest Declaration Assessment* showed that implementation of the NYDF has been far too slow, with global tropical deforestation continuing to increase unsustainably since the declaration was signed. The new 2030 forest commitments made at COP26 are a further sign of ambition. To achieve the desired goals, these commitments must be accompanied by transparent and concrete frameworks and targets.

In order to monitor the actions needed to trigger the structural changes required to achieve the forest goals, a new assessment framework has been developed for 2022. Through a grid of monitoring indicators, the *Forest Declaration Assessment* evaluates the status of the various public and private actions necessary for the protection, restoration, and sustainable use of forests, as well as their quality and level of implementation. The assessment looks at the progress required by 2030 and the changes in public and private policies needed to achieve these goals. The

indicators were developed based on the monitoring work of the 10 NYDF goals, as well as on the goals of various international commitments made in 2021. The indicators are divided into four themes (Table 1). Annex 1 provides a detailed list of these indicators.

Over time, this framework will make it possible to highlight the progress made on various indicators, to assess the quality and level of implementation of public policies, and to identify any gaps that need to be filled. The objective of this work is therefore to produce a framework for monitoring actions between now and 2030.

Table 1. Themes covered by the Forest Declaration Assessment indicators

Theme	Content of the theme		
TI : Forest goals	Indicators covering deforestation rates, forest landscape integrity indices, forest landscape restoration, and high-level commitments to protect or restore forest ecosystems		
T2: Sustainable production and development	Indicators covering the inclusion of anti-deforestation issues in economic development policies and public and private policies related to activities that cause or may cause deforestation (e.g. agricultural production, timber industry, extractive activities)		
T3: Financing	Indicators covering public or private financing related to forest protection or activities that may have an impact on forests, financial instruments, obligations of financial actors, or the role of voluntary carbon markets		
T4: Governance	Indicators covering the content of legal frameworks for combating deforestation, the involvement of civil society and local populations, their access to justice, the monitoring of crime and corruption, and the skills or capacity of government bodies		

The application of the *Forest Declaration Assessment* in the Congo Basin: a collaborative research project with nine civil society organizations

This year's *Forest Declaration Assessment* includes a regional-level study conducted in the Congo Basin. Ranked as the world's second largest tropical forest and a major carbon sink, this region of Central Africa plays an important role in achieving global forest goals, sustainable development goals, and the objectives of the Paris Agreement.

In order to apply the *Forest Declaration Assessment* analytical framework at the regional scale, data were collected from four countries in the Congo Basin: Cameroon, Gabon, the Democratic

Republic of the Congo (DRC), and the Republic of Congo. Some quantitative data were also collected for Equatorial Guinea and the Central African Republic. This regional study was developed in partnership with regional and national civil society organizations and experts, who contributed to data collection and the development of research questions. The organizations involved in the *Forest Declaration Assessment* are: ABIOGeT, ACB-ONG, Acteurs du Tourisme Durable, Brainforest Gabon, Cabinet Essono Ondo pour le Social et l'Environnement, Geospatial Technology Group, Réseau Femmes Africaines pour le Développement Durable (REFADD), Réseau des Jeunes des Forêts d'Afrique Centrale (REJEFAC), and WWF-RDC.

This first report of the *Forest Declaration Assessment* in the Congo Basin is the result of this collaborative work conducted over several months. It provides an overview of the major efforts to combat deforestation in the Congo Basin to date and provides a snapshot of baseline deforestation conditions in 2022 and public and private forest policies. Some important issues could not be addressed in this first report (Box 1) and others should be addressed in follow-up studies. The purpose of this report is to serve as a baseline against which progress toward forest goals can be assessed over time.

In addition to an introduction and conclusion, this document is structured in three main parts. The first part (**Chapter 2**) presents an overview of Congo Basin forests and the ecological, climatic, and socio-economic contexts in which policy decisions regarding forests are made. The second part (**Chapter 3**) focuses on recent trends in deforestation and land degradation, and then on the different drivers of deforestation in the region. The third and final section (**Chapter 4**) presents an analysis of current public and private policy actions and priority actions to enable sustainable land use compatible with forest conservation and reduced deforestation. Each section includes a summary of key messages.

Box 1. The Forest Declaration Assessment 2022 Regional Study

The regional study of the *Forest Declaration Assessment* in the Congo Basin is a pilot study conducted over several months, the objective of which was to create a group of civil society partners in the Congo Basin and to apply the assessment framework developed and verified at the scale of the global *Forest Declaration Assessment*. It is important to note the following limitations of this pilot project:

- Data collection on existing policies and measures, as well as their evaluation, took place over a twomonth period. The information collected allows for an initial assessment of the current situation and serves as a reference for iterative work by the civil society sector. Future field studies and research will allow for an in-depth assessment of the implementation of the policies identified in this report.
- Quantitative results on trends in deforestation and land degradation rates are based on independent data from the scientific community. National data produced by individual governments are not presented here, as different approaches may make it difficult to present aggregated data at the regional scale. The inclusion of such data, particularly through the Observatoire des forêts d'Afrique centrale (OFAC), could be considered in future work.
- The report analyzes the role of private actors and their policies in achieving forest goals, but does not provide quantitative analyses of the impact of economic incentives related to market prices and international demand for forest products. This may be explored in future work.
- The report does not provide quantitative analyses of the greenhouse gas emission impacts of different policy actions related to forests or land use.

2.0 THE FORESTS OF THE CONGO BASIN: SOCIO-ECONOMIC AND ENVIRONMENTAL CONTEXT

Key Messages

- The Congo Basin, situated in Central Africa, is home to the second largest tropical forest in the world and is a major biodiversity hotspot. In 2020, the total area of tropical rainforests in Central Africa was estimated at 200 million hectares, of which 184.7 million hectares had no visible signs of disturbance. The Congo Basin plays an important role in regional and global ecological regulation. The region's forests are also natural, socio-economic, and cultural wellsprings for the Indigenous peoples (IPs) and local communities (LCs) who live there, providing food, medicine, energy, building materials, and income. The forests of the Congo Basin provide livelihoods for 60 million people who live in or near forest areas and indirectly feed the 40 million people who live in nearby urban centers.
- Ecosystems in the Congo Basin include dense tropical forests, dry forests, peatlands, and mangroves. All are rich in biodiversity and hold significant carbon storage capacity. Over the 2001-19 period, the Congo Basin's forests presented the largest net carbon sink in the tropics, removing 0.61 net gigatons of carbon dioxide equivalents (GtCO2e) per year—nearly six times the net removals of the Amazon Basin forests in only 60 percent of the area. This ratio is mainly explained by differences in gross emissions, which are twice as high in the Amazon as in the Congo Basin.
- Actions to combat deforestation in the Congo Basin must take into account the region's complex socio-economic context with high poverty rates and growing urbanization in some countries.
- Women, youth, and other vulnerable groups are central to the functioning of community forests and associated economies, but are often marginalized in forest-related decisions. However, there has been progress in recognizing the rights of IPs in legal frameworks, such as in the Republic of the Congo and the DRC.
- Forests support the economies of Congo Basin countries, including through logging. Congo Basin countries face reconciling development objectives with commitments to preserve forests. Government-backed logging companies and local populations with ownership rights under customary law are often in conflict. In addition to logging, there is increasing interest in developing mineral extraction in Congo Basin forests.
- The commitments made at the 26th Conference of the Parties (COP26) demonstrated an international will to reduce deforestation and ensure sustainable land use in the Congo Basin. However, these commitments still lack concrete objectives. Without increased transparency and clarification of their objectives, assessments of their impact and implementation will be limited.
- The Central African Forest Commission (COMIFAC), particularly through its Central African Forest Observatory (OFAC), plays a role in harmonizing national institutional frameworks and collecting data at the national level.

The Congo Basin forests in Central Africa form a block of dense rainforests spanning six countries: Cameroon, the Central African Republic, the DRC, the Republic of Congo, Gabon, and Equatorial Guinea. The area constitutes the largest forest block after the Amazon and plays an important global role in preserving biodiversity and storing carbon.⁴ As of January 2020, the total area of Central African rainforests was estimated at 200 million hectares, of which 184.7 million hectares had no visible signs of disturbance.⁵ The undisturbed forests of Central Africa represent the largest carbon sink in the tropics to date.⁶ However, disturbances caused by degradation and deforestation could lead to the loss of large areas of forest.⁷

The Congo Basin is known for its tropical forests, but the region also contains non-tropical ecosystems rich in biodiversity. These include dry forests, peatlands, and mangroves.^{8,9} The dry forests of the Congo Basin play an important role in terms of biodiversity and carbon storage¹⁰ and the peatlands of the Cuvette Centrale region contain important carbon reserves, as well as rare endangered species.¹¹ Sixty-four different ecosystems can be observed throughout the region (Figure 1). These different ecosystems have a unique ecological importance and contribute to the mitigation of global warming, while providing for the needs of the populations that depend on them.¹²

Figure 1: Map of the Congo Basin forests. For more details on the map, please see Shapiro et al. (2021).



Forest Ecosystems of the Congo Basin

Terra Firme Forests

- Northeastern Montane Dense Evergreen Rainforest under Northern Equatorial Climate IN Northwestern Montane Dense Evergreen Rainforest under Northern Equatorial Climate Northeastern Lowland Dense Evergreen Rainforest under Southern Equatorial Climate Southern Lowland Dense Evergreen Rainforest under Southern Equatorial Climate Northwestern Lowland Dense Evergreen Rainforest under Southern Equatorial Climate Northeastern Submontane Dense Evergreen Rainforest under Southern Equatorial Climate I Northwestern Submontane Dense Evergreen Rainforest under Southern Equatorial Climate INortheastern Montane Dense Evergreen Rainforest under Southern Equatorial Climate Northwestern Montane Dense Evergreen Rainforest under Southern Equatorial Climate Northeastern Lowland Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate Southern Lowland Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate IN Northwestern Lowland Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate Northeastern Submontane Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate Northwestern Submontane Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate 🔲 Northeastern Montane Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate III Northwestern Montane Evergreen and Semi-Deciduous Rainforest under Southern Equatorial Climate Northern Lowland Semi-Deciduous Rainforest under Northern Equatorial Climate Northeastern Lowland Semi-Deciduous Rainforest under Northern Equatorial Climate Southern Lowland Semi-Deciduous Rainforest under Northern Equatorial Climate INorthwestern Lowland Semi-Deciduous Rainforest under Northern Equatorial Climate Northeastern Submontane Semi-Deciduous Rainforest under Northern Equatorial Climate Northwestern Submontane Semi-Deciduous Rainforest under Northern Equatorial Climate Northeastern Montane Semi-Deciduous Rainforest under Northern Equatorial Climate Northwestern Montane Semi-Deciduous Rainforest under Northern Equatorial Climate Northeastern Lowland Semi-Deciduous Rainforest under Southern Equatorial Climate Southern Lowland Semi-Deciduous Rainforest under Southern Equatorial Climate Northwestern Lowland Semi-Deciduous Rainforest under Southern Equatorial Climate Northeastern Submontane Semi-Deciduous Rainforest under Southern Equatorial Climate Northwestern Submontane Semi-Deciduous Rainforest under Southern Equatorial Climate Northeastern Montane Semi-Deciduous Rainforest under Southern Equatorial Climate Northwestern Montane Semi-Deciduous Rainforest under Southern Equatorial Climate Northeastern Lowland Semi-Deciduous Rainforest with Pioneer under Southern Equatorial Climate
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- Northwestern Lowland Maranthaceae under Northern Equatorial Climate
- Swamp Forest Types
- Eastern Irregularly Flooded Swamp Forest
- Eastern Seasonal Short-Lasting Flood Pulse Swamp Forest
- Eastern Stable Water Level Swamp Forest
- Eastern Seasonal Flood Pulse Swamp Forest
- Eastern Palm-Dominated Seasonal Short-Lasting Flood Pulse Swamp Forest
- Eastern Palm-Dominated Stable Water Level Swamp Forest
- Eastern Palm-Dominated Seasonal Flood Pulse Swamp Forest
- Western Irregularly Flooded Swamp Forest
- Western Seasonal Short-Lasting Flood Pulse Swamp Forest
- Western Stable Water Level Swamp Forest
- Western Seasonal Flood Pulse Swamp Forest
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- Southern Submontane Open Forest under Southern Equatorial Climate

2.1. SOCIO-ECONOMIC CONTEXT

Actions to combat deforestation in the Congo Basin region are developed in a complex socioeconomic context. Forests support important economic sectors of Congo Basin countries, fulfill essential social and cultural functions for Indigenous peoples (IPs) and local communities (LCs), and provide crucial ecosystem services to millions of people. The rights of IPs are not yet sufficiently recognized and women and youth are sometimes marginalized in forest-related decisions, despite their crucial role in the functioning of community forests and economies.

Some countries of the Congo Basin have growing populations and urbanization rates. The region also has high poverty rates. As of 2021, the total population of the region was approximately 180 million, and this figure is expected to double by 2050.^{13,14} The high population growth, low human development index, and high poverty rates in the region (Figure 2) demonstrate a significant need for development and economic growth. These demographic factors combined with other elements – such as population distribution, population density, and migration phenomena – may contribute to increased anthropogenic activities that affect the sustainable use of forests.¹⁵

Figure 2: Demographic information and forest area of the different countries of the Congo Basin

Basin	
Cameroon ¹⁶	
Population (2021) 27.2 million	Population growth (2021) 2.5% annual
GDP per capita (2021) 1,661.7 USD	Poverty rate (2014) ^a 25.5% of the population
Terrestrial and marine protected areas (2021) 11% of total area	Forest area (2020) 43% of total area
Equatorial Guinea ²¹	l
Population (2021) 1.4 million	Population growth (2021) 3.3% annual
GDP per capita (2021) 8,462.3 USD	Poverty rate ^a
Terrestrial and marine protected areas (2021) 1.8% of total area	Forest area (2020) 87.3% of total area
Gabon ¹⁷	
Population (2021) 2.3 million	Population growth (2021) 2.4% annual
GDP per capita (2021) 8,017.0 USD	Poverty rate (2017) ^a 2.5% of the population
Terrestrial and marine protected areas (2021) 25.1% of total area	Forest area (2020) 91.3% of total area

^aRatio of poor population living on less than USD 1.90 per day (2011 PPP)

The forests of the Congo Basin provide livelihoods for 60 million people who live in or near the forest areas¹⁶ and fulfill essential social and cultural functions for IPs and LCs. People living in and around the forests derive their livelihoods from the goods and services provided by the forest ecosystem, such as through hunting, fishing, agriculture, and the sale of forest products.¹⁷ The forests also indirectly contribute to the food supply of the 40 million people living in urban centers near these forest areas.¹⁸ Small-scale shifting cultivation, or swidden agriculture, practiced in the region involves rotating crops over small areas at given intervals, such as a few years of cultivation, followed by a period of fallow to encourage new forest growth.¹⁹ This practice can be a sustainable form of forest use, but various economic pressures can impact the sustainability of these practices.²⁰

The pastoralist communities of the Pygmy – with an estimated population of 920,000²¹ – and the Mbororo live in the Congo Basin.²² Because of their way of life (nomadic, herding, hunter-gatherer),²³ these communities play a conservation role in Congo Basin forests.²⁴ However, the Pygmies and their rights are not always recognized due to a lack of distinction in the region between IPs and LCs.²⁵ The rights of IPs in the Congo Basin are not yet sufficiently recognized. Indigenous populations are often marginalized and dispossessed of their land.²⁶ Progress has been made in recognizing the rights of IPs in legal frameworks. This is the case, for example, in the Republic of the Congo²⁷ and the DRC²⁸ (see Chapter 4.3).

Despite their crucial role in the functioning of community forests and economies, women and youth are sometimes marginalized in forest-related decisions. Women, children, youth, and IPs are also disproportionately vulnerable to climate change and its associated impacts on ecosystems. Global warming exacerbates women's already high levels of vulnerability due to gender inequalities by making the natural resources on which they depend scarcer. Deforestation, reduced biodiversity, and women's lack of land ownership further expose them to food insecurity and poverty. In rural areas where women have limited access to decision-making and control over forest resources, this also limits their ability to adapt to environmental change. Women's knowledge of natural resources that can contribute to climate change adaptation and mitigation is also often ignored in decision-making processes, limiting society's overall adaptive capacity.²⁹ Studies in different countries suggest that low adaptive capacity in society increases the vulnerability of children, youth,³⁰ and IPs.³¹

Forests support important economic sectors of the countries in the Congo Basin. This is particularly true for logging, but the region is also subject to increasing interest in developing mineral extraction industries in forest areas. Logging companies are often in conflict with local populations who have property rights under customary law. The countries of the Congo Basin face the challenge of reconciling their development objectives with commitments to preserve their forests. In 2020, approximately 12.5 million cubic meters of wood were produced in the region.³² In Cameroon, Gabon, and the Republic of the Congo, the timber industry contributes between 3.5 percent and over 5 percent of gross domestic product.³³ The industrial forestry and artisanal sawmilling sectors also generate over 90,000 direct jobs in Cameroon, Gabon, the Republic of the Congo, and the DRC, as well as many indirect jobs.³⁴ Despite the contribution of these industries to development, logging does not always provide sustainable livelihoods due to low pay, dangerous working conditions, and high job insecurity.³⁵ The logging industry in the Congo Basin is divided into two sectors:³⁶ (i) the regulated formal sector, which contributes primarily to economic growth and job creation; and (ii) the informal sector, which is not subject to laws and regulations, prevents the maximization of the socio-economic potential of the logging industry, and creates pressure on natural forests. With the exception of Equatorial Guinea, the management of natural forests for the timber industry in Congo Basin countries is based on the principle of concessions to a private operator, granting them exploitation rights for periods that can vary between 20 and 35 years, plus obligations to contribute to local development.³⁷ This type of forest governance – one centrally governed by a government body and a small group of industrialists, technical experts, and scientists - has its limitations. This form of governance led to the 2002 creation of the Congo Basin Forest Partnership (CBFP), with the aim of improving forest governance in Central Africa.³⁸

Despite efforts to ensure coexistence between logging companies, whose concession permits are granted by the government, and local populations who use customary law to exploit their lands and resources, conflicts over and insecurity of forest ownership remain recurrent and sometimes violent.³⁹ Local people who have ownership and use rights to their land under customary law are often not consulted by the government in granting concession permits to timber companies. This results in unequal treatment between public and customary law. Local populations are therefore often presented with a fait accompli by logging companies that deforest their land and disobey the memorandum of understanding. These situations create a sense of insecurity, mistrust of the government, dispossession, and conflict.⁴⁰ However, efforts are being made to prevent such conflicts, particularly at the legal and regulatory levels (Chapter 4).

The subsoil of the Congo Basin is rich in metal and non-metal mineral resources including copper, manganese, iron, diamonds, cobalt, and coltan,^{41,42} the value of which is estimated in billions of dollars on the international markets.⁴³ Iron is available in abundance on the border between Cameroon, Gabon and the Republic of the Congo.⁴⁴ The Katanga province of the DRC has the world's second largest copper reserve estimated at 70 million metric tons, and a cobalt reserve estimated at 5 million metric tons. The DRC supplies more than 65 percent of the global market for cobalt and could supply more than 75 percent by 2023, particularly to meet production demand for batteries for cell phones and electric vehicles.⁴⁵ The Orientale Province and the South Kivu region of the DRC are the largest gold-producing areas in the Congo Basin. Finally, diamond reserves are found in the DRC, Cameroon, Gabon, and the Central African Republic.⁴⁶ Historically, most mineral exploitation by the extractive industry has taken place in non-forested areas, but this

could change in the future, like in the case of Gabon and Cameroon where declining oil revenues create a deficit in the market.⁴⁷ Oil exploration campaigns were also conducted in 2013 and 2016 in the Republic of the Congo.⁴⁸ The recent auction of oil licenses in protected areas by the DRC in July 2022 indicates increasing pressure on forests.⁴⁹

2.2. ENVIRONMENTAL CONTEXT

2.2.1. Ecological role and climate

The forests of the Congo Basin are the second largest tropical forest in the world after the Amazon and are home to exceptional biodiversity of flora and fauna. Congo Basin forests and peatlands contain important reserves of carbon and biomass and are a crucial carbon sink. A recent study suggests that Congo Basin forests are now the most important tropical carbon sink in the world.

The forest ecosystems of the Congo Basin account for about 70 percent of the forest cover of the African continent, nearly half of which is dense lowland forest.⁵⁰ One in five of all species currently recorded globally is found in these forests.⁵¹ There are 20,000 species of plants (8,000 of which are endemic), 1,300 species of birds, 336 species of amphibians, 400 varieties of reptiles, and 400 varieties of mammals in Congo Basin forests. A large part of these species are placed on the world's Red List of threatened species. Additionally, there is a large animal population of forest elephants, chimpanzees, gorillas, bonobos, okapis, bongos, as well as a count since 2000 of more than 200 new animal species.⁵²

Sub-Saharan Africa's forests contain 25 percent of the 247 Gt of biomass carbon contained in the major tropical forest regions (i.e. Latin America, Sub-Saharan Africa, and Southeast Asia), or 62 billion metric tons of carbon (GtCeq).⁵³ The estimated cumulative forest carbon stock of the DRC, Cameroon, Gabon, and the Republic of the Congo – the four countries with the largest carbon stock in the sub-Saharan African region – is 37 GtC.⁵⁴ The tropical rainforests of the DRC have a high biomass density estimated at 300 metric tons per hectare (Mg/ha) and cover 115 million hectares.⁵⁵ This represents 39 percent of the 298 million hectares of forest in the Congo Basin.⁵⁶ Between 2001 and 2019, the Congo Basin's forests provided a net carbon sink of -0.61 GtCO eq₂ per year – nearly six times the net uptake of the Amazon Basin's forests for an area 40 percent smaller.⁵⁷ The region has an "irrevocable" carbon pool (i.e. carbon threatened by human activity and not recoverable within 30 years if damaged) amounting to 8.2 GtCO eq₂.⁵⁸ A recent study concluded that undisturbed forests in Central Africa are now the world's largest tropical carbon sink, absorbing more carbon than forests in the Amazon and Southeast Asia.⁵⁹

Peatland degradation worldwide is responsible for 5-10 percent of global carbon dioxide emissions from human activity.⁶⁰ Peatlands in the Congo Basin account for more than one-third of the total global peatland area and serve as an additional carbon sink to the region's tropical forests. Peatlands could become a source of emissions if their degradation is sustained. The peatlands in the Central Cuvette region represent approximately 29 billion metric tons of buried carbon over an estimated area of 167,600 km^{2.61} The DRC alone contains peatlands as deep as 3.4 meters only 200 meters from major roads,⁶² which are therefore vulnerable to human activities.

2.2.2. Vulnerability of forests and ecosystems

Human activities and climate change are impacting the sequestration capacities of natural carbon sinks and other ecological regulation processes in the Congo Basin. Protecting high integrity ecosystems can increase the resilience of carbon sinks to human pressures and global warming.

Human activities are not the only factors threatening forest ecosystems. Current climate change is already impacting the sequestration capacities of natural carbon sinks, as well as other ecological regulation processes in the Congo Basin. Tropical forest ecosystems are particularly vulnerable to global warming, which is leading to – among other impacts – periods of increased drought and increased fire.⁶³ The increase of atmospheric CO₂ also affects the proportion of emissions that can be retained by the soil.⁶⁴ The capacity of intact tropical forests to act as carbon sinks is already declining globally. In the 1990s, intact tropical forests absorbed 17 percent of anthropogenic CO₂, but this figure dropped to about 6 percent in the 2010s. This decline in absorbed CO₂ is due to: (1) a 33 percent reduction in the average absorptive capacity of global forests, (2) a 19 percent decrease in forest area, and (3) a 46 percent increase in anthropogenic CO₂ emissions.^{65,66} Although the trends are less significant in the Congo Basin compared to those in the Amazon forests, this development is nonetheless disturbing and underscores the need to preserve these forests.⁶⁷

High population growth and significant climate change is predicted in the medium and long term in Central Africa, representing a growing threat to forest ecosystems. Identifying the areas most at risk can inform the development of policies for sustainable forest protection and management. Figure 3, taken from a study conducted in 2021,⁶⁸ projects the vulnerability gradient of Central Africa's forests to climate change and increased human pressure by 2085. Areas with a greater capacity to adapt to climate change are assumed to be those with the least human-induced pressures. In addition to reducing deforestation in areas with high rates of forest loss, limiting the degradation of intact forests can help reduce their vulnerability to human pressures and global warming. Figure 3. Vulnerability to climate change in the Congo Basin, adapted from Réjou-Méchain et

al. (2021). The color gradient indicates the vulnerability rates to climate change and anthropogenic pressure: magenta indicates areas most vulnerable to both phenomena and green corresponds to areas least vulnerable to both phenomena. Blue indicates areas that are very vulnerable to climate change and less vulnerable to anthropogenic pressure, and vice versa for the areas indicated by orange.



Anthropogenic pressure in 2085

High

2.3 INTERNATIONAL CONTEXT

2.3.1. International commitments to protect forests

The commitments made at COP26 demonstrated an international willingness to reduce deforestation and support actions for the sustainable use of forests in the Congo Basin. However, such promises are not new. Without increased transparency and unambiguous action, the implementation of these commitments will remain incomplete. Clarifying the objectives of international forest protection commitments will allow for their monitoring and evaluation at COP27.

The protection and conservation of forests, biodiversity, and the people who depend on them is an objective in several major international conventions and frameworks (e.g., the Paris Agreement, Sustainable Development Goals, the Convention on Biological Diversity, the Bonn Challenge). At COP26, governments and international donors formulated numerous new, specific commitments and declarations surrounding tropical forests, particularly those of the Congo Basin (Figure 4). Without the creation of specific targets and mechanisms for transparency and monitoring, these commitments' implementation remains uncertain, as demonstrated by the assessments of the New York Declaration for Forests,^{69,70,71} and the long delay in the flow of climate finance pledged in the 2009 Copenhagen Accord.^{72,73} Moreover, the level of funding promised by these commitments falls far short of what is needed for the Congo Basin (Chapter 4.5).

Figure 4: Summary of Congo Basin forest-related commitments made at COP26

FOREST-RELATED COMMITMENTS AND FRAMEWORK AGREEMENTS

- **Paris Agreement:** Take action to conserve and, where appropriate, enhance greenhouse gas sinks and reservoirs, including forests.
- **Sustainable Development Goals:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (Goal 15).
- **Bonn Challenge:** Restore 150 million hectares of degraded and deforested landscapes by 2020 and 350 million hectares by 2030.
- **Convention on Biological Diversity:** Conserve biological diversity, sustainably use the components of biological diversity, share fairly and equitably the benefits arising from the use of genetic resources.
- **REDD+ Initiative:** Implement activities to reduce human pressure on forests that result in greenhouse gas emissions..

COMMITMENTS MADE AT COP26 RELATED TO THE CONGO BASIN

Joint Declaration of Donors for the Congo Basin:

Objective: To protect and maintain the forests, peatlands, and other carbon reserves of the Congo Basin by collaborating with public and private actors and improving coordination, efficiency, and accessibility.

Financial commitment: Distribute USD 1.5 billion in funding to the six Congo Basin countries between 2021 and 2025.

Signatory countries: European Union, Germany, France, Japan, South Korea, Belgium, Netherlands, Norway, Sweden, United Kingdom, United States.

Other signatories: Bezos Earth Foundation.

Glasgow Declaration on Forests and Land Use:

Objective: A commitment to global forest conservation and restoration.

Financial commitment:

• Of the EUR 1 billion pledged by the European Commission, EUR 250 million will go to the six Congo Basin countries.

More than 140 countries have committed to the declaration, including the six Congo Basin countries.

FACT Roadmap (Forestry, Agriculture and Commodity Trade):

Objective: To promote the sustainable development and trade of agricultural products while protecting and sustainably managing forests and other ecosystems. This is part of a roadmap of actions developed to enable sustainable trade and reduce pressures on forests, including by supporting farmers and improving transparency in supply chains.

No financial commitment.

Signed by 28 governments representing 75 percent of the world's trade in key products that may pose a threat to forests.

OTHER COMMITMENTS MADE IN 2021:

- The renewed commitments of COMIFAC member countries through the "Declaration of the ECCAS/COMIFAC countries for the forests of the Congo Basin and their periphery" during the Berlin symposium (September 2021).
- Letter of Intent between CAFI and DRC committing CAFI to deliver USD 500 million over 5 years to cap forest cover loss and ensure deforestation reduction. The partnership will also promote the regeneration of 8 million ha of degraded lands and forests and place 30 percent of national areas under protected status, including areas where efforts are being made by local communities for sustainable forest management (November 2021).
- Several governments and private actors have committed USD 1.7 billion in funding from 2021 to 2025 to support the forest tenure rights of IPs and LCs and to recognize and reward their role as stewards of forests and nature (November 2021).
- The governments and private actors of the LEAF (Lowering Emissions by Accelerating Forest Finance) coalition have pledged to mobilize USD 1 billion for states increasing their ambition to protect tropical and sub-tropical forests and reduce deforestation (November 2021).
- Twelve of the largest companies managing more than half of the international trade in high-risk forest products (such as palm oil, beef, and soybeans) have announced the release of roadmaps to align production and supply chain actions with trajectories to limit the increase in global average temperature below 1.5°C by the end of the century (November 2021).

The Nationally Determined Contributions (NDCs) of Congo Basin countries reflect the political will to combat deforestation at national levels. Alignment of national policies, development strategies, and NDC objectives – particularly in the agricultural and infrastructure sectors – is critical to achieving forest goals in the Congo Basin.

Under the Paris Agreement, countries commit to national emission reduction targets through the development of NDCs. Updated at regular intervals, these strategic documents set out countries' emission reduction targets for 2025 or 2030. While some targets are unconditional, others are conditional on external actions, such as the receipt of international financing. NDCs also list priority sectors for global warming mitigation actions, as well as the orientations and and public policies required to implement these actions in various sectors (Table 2). Despite their high visibility at the annual meetings of the Parties to the UNFCCC, these documents are not legally binding and countries incorporate them to various degrees within their national policies. However, NDCs can serve as a reference for the development or updating of national public policies and strategies.

Table 2. Consideration of forest issues in nationally determined contributions in the four countries studied

CAMEROON ⁷⁴	GABON ⁷⁵
 General objectives Reduce the country's development-related carbon footprint by 35 percent by 2030 (23 percent under a conditional scenario; 12 percent unconditional), without slowing its growth Favor mitigation options with high co-benefits, strengthen the country's resilience to climate change, and align its sectoral policies 	 Ceneral objectives Maintain unconditional carbon neutrality by 2050 Maintain net carbon uptake above 100 million metric tons (Mt) per year starting in 2025 under the condition of access to Paris Agreement climate finance, international and voluntary carbon markets, international markets for sustainable and carbonneutral timber until 2050, technical support, and technology transfer in forest monitoring and climate modeling
 Priority areas for mitigation Agriculture, forestry, and other land use Energy Waste 	 Priority areas for mitigation Agriculture, forestry, and other land use Energy Waste
 Emissions and mitigation in the forest sector The forest sector leads in emissions reduction potential, accounting for 46 percent of the total emission reduction so far 	 Emissions and mitigation in the forest sector Gross emissions from the forest sector estimated at 30.4 Mt COe₂ by 2030, representing an emission reduction of 5,242 metric tones of COe₂ (a 14.7 percent reduction from the 2005 baseline)
 Forest and forest sector vulnerabilities Increasingly degraded forest mass that requires international support to preserve it 	 Forest and forest sector vulnerabilities Selective logging with a harvest of 2 trees per hectare over a 25-year rotation period, which poses risks to the most sensitive part of tropical rainforest biodiversity
 Orientations of actions in the forest sector Sustainable development of rural and urban areas Strengthening of sustainable management and enhancement of forests and biodiversity, including through spatial land monitoring Rehabilitation of degraded lands and reforestation of anthropogenic savannas Enhancement of carbon sinks in degraded forests 	 Orientations of actions in the forest sector Preservation of Gabonese forests (which account for 88 percent of the territory) Development of sustainable forestry and improvement of the wood processing value chain (currently only 8 percent of the wood value chain) Carbon financing in the form of performance-based payments or generating carbon credits

DEMOCRATIC REPUBLIC OF THE CONGO⁷⁶

General objectives

- Emissions reduction of 21 percent, or 650 MtCO₂eq, by 2030 (2 percent unconditionally and 19 percent through conditional actions)
- Promote a green, resilient and low-carbon economy by rationally and sustainably managing the country's natural resources to ensure ecological balance and the social, economic, cultural and environmental well-being of its people

Priority areas for mitigation

- Forestry and forest-related activities
- Agriculture and livestock in the forest environment
- Impacts of urban growth and industrial sectors
- Transport
- Waste

Emissions and mitigation in the forest sector

• Forest is identified as a priority sector that is expected to contribute 182-192 MtCO₂eq to the total mitigation potential in 2030

Forest and forest sector vulnerabilities

• Water resources, forestry, and agriculture sectors as well as the coastal zone have been identified as most vulnerable to the effects of climate change

Orientations for action in the forestry sector

- Reduction in the volume of legal industrial and artisanal exploitation
- Fight against illegal exploitation
- Control other degradation and deforestation activities (e.g., sustainable hunting, fire control)
- Afforestation
- Reforestation
- Restoration of wetlands especially peatlands used for agriculture and livestock,
- More effective forest inventory and monitoring

REPUBLIC OF THE CONGO⁷⁷

General objectives

- Emissions reduction under the conditional scenario of 39.88 percent by 2025 and 32.19 percent by 2030
- 17.09 percent emissions reduction by 2025 under the unconditional scenario and 21.46 percent by 2030 under the conditional and unconditional scenarios

Priority areas for mitigation

- Energy
- Industrial processes and product use (e.g. emissions from mining, chemical, metallurgical industries, etc.)
- Agriculture, forestry and other land uses
- Waste

Emissions and mitigation in the forest sector

 Adoption of mitigation measures for the years 2025 and 2030, including: 6,000 hectares of reforestation, 4,000 hectares of assisted regeneration, and 5,000 hectares of avoided deforestation through the REDD+ initiative

Forest and forest sector vulnerabilities

• The main vulnerable socio-economic sectors are agriculture, water resources, and forest resources

Orientations for action in the forestry sector

- Promotion of the sustainable use of natural resources, restoration of degraded landscapes, and increase of the forest cover of Congo taking into account the socio-economic, ecological and sustainable forest management needs
- Achieve the objectives of the CAFI Declaration on the role of Mediterranean forests
- Adapt forest systems to climate change by halting land degradation, controlling topsoil erosion, and improving water quality and soil productivity
- Reduce the risk of intense and frequent forest fires by developing fire prevention measures and early warning systems

2.3.2. Frameworks for harmonizing forest management policies in Central Africa

The Central African Forest Commission (COMIFAC) and its associated technical body, the Observatoire des forêts d'Afrique centrale (OFAC), stem from over two decades of harmonization between conservation and sustainable management policies within Central African forests. The regional level political will to harmonize forest policies is an important step in the fight against deforestation, even if the resulting policies are not binding.

The concern for policy harmonization in Central Africa was initiated in 1996 with the launch of the Central African Dense Forest Ecosystem Conference (CEFDHAC) in Brazzaville (Republic of the Congo), with the objective of promoting the conservation and sustainable use of Central African forest resources. Through discussion forums and the establishment of several networks of actors, CEFDHAC brings together stakeholders involved in the sustainable management of forest ecosystems. At the end of the first Summit of Central African Heads of State on Forests, held in 1999 in Yaoundé in Cameroon, the Heads of State committed themselves to implementing harmonized management of their forests,⁷⁸ leading to the creation of COMIFAC in 2005 (Figure 5).⁷⁹

COMIFAC provides broad regional forest policy guidelines and supports Central African countries in their implementation of multilateral environmental agreements. As part of establishing sustainable forest management as national priorities within Central Africa, COMIFAC implements conservation measures, harmonized national forest policies, human resources for policy implementation, and forest management instruments (like recognized certification systems).⁸⁰ To ensure the sustainability of forests, countries must establish financing mechanisms while developing an appropriate forest taxation system. Developed for successive 10-year periods, COMIFAC's Convergence Plans guide the implementation of national level forest policies and specify which forest interventions are to be implemented within Central African countries. Adopted in 2014, the latest plan – COMIFAC Convergence Plan 2015-25 – is organized into six priority intervention axes and three cross-cutting axes. Within the plan, Central African countries are called upon to organize national and sub-regional forums dedicated to experience-sharing and networking among relevant forest development and research institutions, and to strengthen coordination between relevant national and international organizations. The degree to which national policies of Central African countries align with COMIFAC's most recent Convergence Plan remains to be assessed.

Created in 2007, OFAC acts as the technical body of COMIFAC and plays an important role in its data collection and centralization. OFAC's objective is to collect, analyze, and publish relevant and up-to-date data on Central Africa's forests and ecosystems to promote better governance and

coherent policies for sustainable resource management. OFAC's flagship publications on the *State of Forests* and the *State of Protected Areas* bring together researchers and experts specializing in Central African forest issues, who provide regular updates on the state of scientific knowledge on forest issues while proposing courses of action. In addition to their flagship reports, OFAC publishes policy briefs and manages a library of resources on forest issues.⁸¹ National data are collected and transmitted by a network of national coordinators in each country according to an online indicator grid developed by OFAC.⁸² Additional data may be provided by private forestry companies, NGOs, protected area managers, and members of the CBFP. An interactive portal was also developed between 2017 and 2022 to visualize existing data by country and by theme.⁸³

Figure 5. Overview of regional institutional actors



3.0

TRENDS AND DRIVERS OF DEFORESTATION AND FOREST DEGRADATION IN THE CONGO BASIN

Key Messages

- The rate of deforestation in the Congo Basin is lower than in other tropical forest regions. These
 forests are considered to have been "passively" protected by a combination of low population
 density in rural areas, political instability, lack of infrastructure and transport, and high risks
 associated with private investment.
- Global and regional studies analyzing the evolution of deforestation and forest degradation show
 a decreasing trend of forest loss in the region from 2015-20. This downward trend still represented
 a substantial area of forest lost: it is estimated that more than 2.2 million hectares of forests were
 lost, and more than 1.5 million hectares were degraded over the same period.
- Deforestation in the Congo Basin increased in 2021 compared to the baseline period 2018-20 by nearly 30,000 hectares (or 4.9 percent), reaching a total of 636,000 hectares lost in 2021. To achieve the global goal of halting deforestation by 2030, a reduction in forest cover loss of 10 percent per year from the 2018-20 baseline will be needed. Only two Congo Basin countries the Republic of the Congo and Gabon are currently on track to meet this goal. Each year that passes without sufficient progress makes it increasingly difficult to meet global forest protection goals and increases the annual reductions that will be required in future years.
- In addition to deforestation, forest degradation and fragmentation pose risks to the Congo Basin's intact forest landscapes, weakening the integrity of these forests and their ecological processes.
 From 2000-16, the share of intact forests in the region decreased from 78 percent to 67 percent, representing a degraded area of about 23 million hectares.
- Recent data show that forest integrity has declined in all six Congo Basin countries. The greatest reductions in forest integrity are seen in Cameroon, the DRC, and Equatorial Guinea. The DRC has over 100 million hectares of undisturbed tropical forest the largest area in Africa. If the current rate of forest disturbance in the DRC continues, the country could lose 22 percent of its tropical forests and 33 percent of its intact tropical forests by 2050. The greatest decline in forest integrity are seen in Cameroon, the DRC, and Equatorial Guinea.
- Evidence suggests that forest degradation and fragmentation dynamics can be precursors to deforestation. Between 2015 and 2020, it is estimated that 11 percent of regional deforestation (approximately 650,000 hectares) occurred in forests that were first fragmented before undergoing permanent conversion.
- The causes of deforestation and forest degradation are multiple, and the factors leading to deforestation at the local level can be overlapping. Small-scale agriculture and the construction of roads and settlements are the largest contributors to deforestation and forest degradation in the Congo Basin. From 2015-20, subsistence agriculture by small-scale farmers in rural areas was the main driver of deforestation and degradation in the Congo Basin – accompanied by the construction of roads and settlements, which accelerate land clearing. Artisanal forestry is increasing, while industrial activities such as mining and agriculture remained steady over the same period.

- Industrial mining, forestry, and commercial agriculture cause forest disturbance in intact core forests, with greater impacts on carbon stocks and biodiversity than disturbances in already degraded forests. The activities in intact or more remote forest areas also indirectly impact forests by attracting people and settlements, which in turn use forest resources for livelihoods and other forest-risk economic activities.
- Lack of tenure security for IPs and LCs and overlapping land use regimes are the main underlying factors of forest disturbance. In addition, poor governance, weak institutions, and lack of law enforcement hamper the protection and sustainable use of forests. Illegal conversion of forests for logging and extractive activities is also increasing.



3.1 RECENT TRENDS IN DEFORESTATION AND FOREST DEGRADATION IN THE CONGO BASIN

3.1.1. Different approaches and scales to quantify deforestation and forest degradation

Globally, there is more forest data available today than ever before. Independent online forest monitoring platforms based on satellite imagery, such as *Global Forest Watch*, track forest cover changes around the world in near real time. Other organizations, such as the Food and Agriculture Organization of the United Nations (FAO), compile government statistics on land use and forest change at the national level. These data are compiled every five years as part of the Forest Resource Assessment (FRA) reports.

Up-to-date information on forest change at the global scale allows for a comparison of real-world trends against international commitments to reduce deforestation. However, this array of global data platforms may show disparate regional or national level forest trends. This is due, in part, to differences in how each platform defines forests and deforestation, their analytical approaches, and the spatial resolution and frequency of data collection.⁸⁴ While global monitoring data provide important information on high-level trends, they do not provide the granularity, robustness, and precision necessary to make conclusions about forest dynamics on the ground. Current global forest data also do not identify the drivers of these trends at national, subnational, and local scales.⁸⁵ However, policymakers and stakeholders require this more granular, detailed information in order to develop and implement appropriate policies, mitigation activities, and incentives to address the direct and indirect activities that cause forest disturbance.

Regional validation of data from global surveys can help increase the relevance and accuracy of deforestation data. The 2020 FRA survey, for example, included analysis of a global sample of high-resolution satellite imagery by a global network of national-level experts in order to incorporate local knowledge of vegetation and land use into the results. Other studies use statistical methods to validate the global data for regional contexts. Using regional and local data to validate global forest trends improves data quality and allows for analysis of potential trend drivers.

The Forest Declaration Assessment evaluates global gross deforestation and indicates the share of tree cover loss in areas that may have been permanently converted from forest to new land use.^a The assessment framework analyzes short-term trends in gross deforestation. To do this, the most recent available data (in this case, data from 2021) is compared to a baseline period (in this case, the average gross deforestation observed from 2018 to 2020). Then, the 2021 data are compared to a future trajectory that projects the achievement of 2030 forest targets. Although multiple deforestation reduction trajectories are possible, the framework is based on a linear reduction trajectory to 2030. This approach was developed and refined by a consortium of global partners in the *Forest Declaration Assessment* and forms the basis of the global analysis in a published report on Theme 1 (Table 1). This chapter applies this approach to Congo Basin forests and presents the results.

Depending on the data source and methodology, global data show varied deforestation trends for the Congo Basin.⁸⁶ Recent efforts have validated and locally calibrated global satellite imagery data for Congo Basin, improving the accuracy and applicability of global monitoring data.⁸⁷ These efforts have identified forest disturbance drivers and their impact on forest types.

This section presents a non-exhaustive overview of the most recent globally and regionally validated deforestation and forest degradation monitoring data in the Congo Basin. The section then presents country-level trends derived from the *Forest Declaration Assessment* analysis. The main definitions used within this chapter are summarized in Box 2.

^a Deforestation is represented by reporting tree cover loss for the Congo Basin in areas that are permanently converted from forest to new land use by overlaying information on drivers of tree cover loss (Curtis et al., 2018). This includes all tree cover losses due to agricultural production and urbanization, as well as tree cover losses due to shifting agriculture in primary tropical rainforests (Turubanova et al., 2018). This is particularly important for tropical regions, where these activities are dominant drivers of deforestation. This aligns with indicator 1.4 of Theme 1 of the Forest Declaration Assessment.
Box 2. Terminologies and definitions used in Chapter 3

Deforestation: The Food and Agriculture Organization of the United Nations (FAO) defines deforestation as the permanent conversion of forest area to non-forest area or other land use, whether or not humaninduced.⁸⁸ The *Forest Declaration Assessment's* definition of deforestation is based on the World Resources Institute (WRI) interpretation, which defines deforestation as a loss of tree cover that is either permanent in nature, such as when forest is converted to cropland or cleared for development, or when a loss of tree cover occurs within the boundaries of primary tropical rainforest. There are several differences between the methodologies used by WRI and FAO:

- FAO deforestation figures do not always include the loss of forest cover due to shifting agriculture in the tropics.
- The WRI approach uses data from Hansen et al. (2013),⁸⁹ which estimates forest cover loss at a 30x30m resolution. To determine whether a pixel was originally forest, an arbitrary threshold of 30 percent forest cover is set. This "definition" is applied consistently around the world. Users can choose different thresholds, for example a 10 percent threshold of forest cover.
- FAO data are reported by countries directly, which may themselves use different methodologies, resolutions, and definitions.

Forest degradation: a reduction in the capacity of forests to provide ecosystem services, caused by natural or human-induced environmental changes.

Forest disturbance: A generic term for both deforestation and human-induced degradation in a forest area.

Gross deforestation: Gross deforestation accounts for direct losses of forest cover without taking into account natural or induced forest recovery or other vegetation types that new land uses may involve.

Net deforestation: Net deforestation considers not only the loss of forest cover but also the regrowth of forest, and/or the vegetation cover inherent in the new land use.

Zero gross deforestation: The Glasgow Declaration on Forests and Land Use calls for halting and reversing forest loss and land degradation by 2030 but does not specify whether this target applies to gross or net deforestation. The *Forest Declaration Assessment* 2022 uses the gross definition to assess the 2030 target. Indicators to track an end-of-net-deforestation trajectory will be developed in future assessments as data become available (including the results of the next FAO Forest Resources Assessment in 2025).

Tree cover loss: a loss event that may or may not be permanent. Non-permanent tree cover loss commonly occurs in the context of logging, fire, or shifting agriculture. Tree cover loss data are often analyzed as a first step in measuring deforestation.

3.1.2. Deforestation trends in the region

Several global and regional studies analyzing deforestation and forest degradation show a downward trend in deforestation in the Congo Basin between 2015 and 2020. Analyses from the *Forest Declaration Assessment* suggest an upward trend in deforestation in the Congo Basin in 2021 compared to the baseline period of 2018-20. In order to achieve the global goal of halting deforestation by 2030, forest cover loss must be reduced by 10 percent per year between 2020 and 2030 in Congo Basin countries. Only Gabon and the Republic of the Congo are currently aligned with this trajectory.

The rate of deforestation in the Congo Basin forests has been historically low. These forests are considered to have been "passively" protected by a combination of factors including low population density in rural areas, political instability, lack of infrastructure and transport connections, and high risks associated with private investment.⁹⁰

Some global databases show a downward trend in deforestation in Central Africa. These include a study based on satellite data analyzing changes in worldwide tropical rainforest cover found a downward trend in total net deforestation in Central Africa between 2016 and 2019.^{91,92} The FRA 2020 Remote Sensing Study – which presents estimates of land use change and land cover area at the global, regional, and biome levels – found that the annual rate of net deforestation in the West and Central Africa subregion decreased between 2000 and 2010 (1.38 Mha/yr) and 2010 and 2018 (1.04 Mha/yr).⁹³

Regionally validated estimates suggest that the annual area affected by deforestation in the Congo Basin has been slowly decreasing since 2017, with a slight increase in the area of degraded forests between 2019 and 2020 (Figure 6). Supported by CAFI, this recent scientific study conducted a statistically validated assessment of deforestation and degradation at the regional scale in the six Congo Basin countries during 2015-20.⁹⁴ Area estimates were calculated using sample area assessments from data validated by regional experts. These results suggest that more than 2.2 million hectares of forest were lost and more than 1.5 million hectares of forest were degraded over the 2015-20 period.^b

^b It is difficult to make a direct comparison with the above analysis based on global data because of the different methodologies used. See Shapiro et al. (2022) for more information on the methodology for obtaining regionally validated estimates and how they differ from global data and methodologies.



Figure 6: Forest disturbance in the Congo Basin (*sample-based area assessments*). Adapted from Shapiro et al. 2022.

Analyses from the *Forest Declaration Assessment* show an upward trend in deforestation in the Congo Basin. Compared to the baseline period of 2018-20, deforestation in the Congo Basin increased by nearly 30,000 hectares (or 4.9 percent), reaching a total of 636,000 hectares in 2021 (Figure 7). This upward trend contrasts with the above-mentioned sources, but covers 2021 data – a year which is not included in the above analyses. While the overall global data show a declining trend in deforestation through 2020, the 2021 deforestation rate for the Congo Basin as a whole is higher than the 2018-20 average, according to the *Forest Declaration Assessment* analyses.

As part of COP26, the Glasgow Declaration called for an end to deforestation by 2030 and was signed by Cameroon, the Central African Republic, the DRC, the Republic of Congo, Equatorial Guinea and Gabon, among many other signatories. Congo Basin countries must reduce forest cover loss by 10 percent per year between 2020 and 2030 in order to achieve the global goal of halting deforestation by 2030. Only two countries within the region are currently aligned with this trajectory.

Figure 7. Total deforestation (ha) in the six Congo Basin countries (2010-2021) and trajectory

towards the 2030 target. Source: *Forest Declaration Assessment* 2022, based on data from *Global Forest Watch* and Curtis et al. 2018.



At the national level, the *Forest Declaration Assessment* analysis shows that deforestation and associated emissions increased in 2021 in four Congo Basin countries and decreased in the other two. Deforestation is highest in the DRC and Cameroon. In the DRC, deforestation increased by just 3 percent between the 2018-20 average and 2021 levels, but this corresponds to 497,000 hectares lost in 2021, or more than 78 percent of total deforestation in the Congo Basin (Figure 8 and Table 3). Cameroon contributed only 14 percent of total deforestation in the Congo Basin in 2021, but its forest loss increased by 25 percent between the 2018-20 period and 2021 – a larger increase than in the DRC. Deforestation in the Republic of the Congo and Gabon decreased by 30 percent and 28 percent, respectively, between 2018-20 and 2021. In 2021, 444 MtCO eq₂ were emitted in the Congo Basin due to forest cover loss, an increase of 5.4 percent compared to the annual average over the 2018-20 period (Figure 9). Based on 2021 observations, only Gabon and the Republic of the Congo Basin countries must collectively maintain a decline in deforestation. To achieve this goal, the Congo Basin countries must collectively maintain a decline in deforestation of 64,000 hectares per year starting in 2022.

Figure 8. Deforestation (ha) in Congo Basin countries between 2010 and 2021. The dotted line represents the trajectory to reach the goal of ending deforestation by 2030. Note that Gabon and the Central African Republic have an almost identical trajectory to the 2030 goal of zero deforestation, and therefore their trajectories are superimposed on the figure. Source: *Forest Declaration Assessment* 2022, based on data from *Global Forest Watch* (Curtis et al. 2018)





Table 3. Deforestation in Congo Basin countries: baseline data (2018-2020), 2021 data, andabsolute and relative change. A goal of zero deforestation by 2030 implies a reduction indeforestation of 10 percent per year. Strong reductions have been observed in the Republic of theCongo and Gabon, which are on track, while deforestation has increased in the other countries.

	Baseline 2018- 2020 (ha) (A)	2021 (ha) (B)	Absolute change (ha) (B-A)	Relative change
DRC	481,118	496,906	15,788	3%
Cameroon	71,106	88,776	17,669	25%
Republic of the Congo	27,517	19,158	-8,359	-30%
Central African Republic	11,150	19,021	7,872	71%
Gabon	11,607	8,315	-3,293	-28%
Equatorial Guinea	3,415	3,683	268	8%

Note: The new reporting framework for the Forest Declaration Assessment analyzes indicators of forest loss and degradation in two ways. First, the 2021 data are compared to a 2018-20 baseline period to assess the short-term trend of a given indicator (Table 1). They are then compared to a future trajectory for achieving the 2030 targets, such as zero deforestation by 2030. Although multiple deforestation reduction trajectories are in principle possible to achieve this goal, the Forest Declaration Assessment establishes a linear reduction trajectory. A reduction in deforestation of 10 percent per year relative to the baseline period is required to achieve the 2030 target (Figures 7, 8, and 9).

Figure 9. Annual emissions from deforestation in the Congo Basin countries between 2010

and 2021 (MtCO₂eq). The dotted line represents the trajectory needed to reach the goal of ending deforestation by 2030. Source: *Forest Declaration Assessment* 2022, based on *Global Forest Watch* data (Harris et al. 2021, Curtis et al. 2018)



3.1.3. Trends in forest degradation in the region

In addition to deforestation, forest degradation and fragmentation (including within intact forests) pose risks to forest landscapes in the Congo Basin. Forest integrity has declined in all six countries in the region. Regional level estimates in the Congo Basin show that forest degradation and fragmentation dynamics can be precursors to deforestation.

Increasing attention is being paid to preserving intact forests, which play a central role in maintaining endemic species and ecosystem services that regulate local and global climate. All six countries in the Congo Basin contain intact forest landscapes (IFLs), defined as large landscapes (at least 500 km in area and at least 10 km in diameter) that have not been significantly disturbed by human activities and show no signs of human-induced fragmentation.⁹⁵ The DRC has the largest area of undisturbed tropical forest in Africa at 105.8 Mha.⁹⁶ In 2019, the undisturbed tropical forests of Cameroon, Gabon, and the Republic of the Congo covered areas between 19.8 and 23.4 Mha.⁹⁷

Forest degradation is defined as a reduction in the capacity of forests to provide ecosystem services caused by natural or human-induced environmental changes.⁹⁶ Forest degradation weakens the integrity of intact forests and their ecological processes. While not necessarily related to a reduction in forest cover, degraded forest is characterized by a reduction in above-ground biomass.^{99,100} Compared to deforestation, degradation is more complex to monitor and detect and can reinforce forest fragmentation in IFLs.^{101,102,103} Recent efforts by the scientific community have contributed to understanding the extent of degradation in the Congo Basin. Between 2000 and 2016, the region's share of intact forests decreased from 78 percent to 67 percent, representing a degraded area of about 23 million hectares.¹⁰⁴ Another study on tropical rainforests reveals that forest disturbance has increased in all Central African countries. Between 2009 and 2019, the rate of reduction of intact forests in the DRC was about 1.4 million hectares/year.¹⁰⁵ This was lower in the Republic of the Congo and Gabon (0.03-0.1 million hectares/year). If the current rate of forest disturbance in the DRC continues, the country could lose 22 percent of its tropical forests and 33 percent of its intact tropical forests by 2050.¹⁰⁶

The Forest Landscape Integrity Index^{107,108} monitors the ecological integrity of forests and provides an indication of forest connectivity (or lack thereof) and anthropogenic pressures on intact forests. Recent data show that forest integrity has declined in all six Congo Basin countries (Figure 10 and Table 4). The greatest reductions in forest integrity are seen in Cameroon, the DRC, and Equatorial Guinea. **Figure 10: Forest landscape integrity index for Congo Basin countries between 2017 and 2021.** Horizontal lines correspond to the integrity level of the reference period (2018-20), representing the Glasgow Declaration target calling for an end to land degradation.



	Reference period (2018-20)	2021	Relative change
Central African Republic	9.4	9.2	-1.22%
Gabon	9.0	8.9	-0.53%
Republic of the Congo	9.0	8.9	-1.04%
Cameroon	8.3	8.0	-2.48%
DRC	8.1	7.9	-2.0%
Equatorial Guinea	8.0	7.8	-1.84%

Note: The Forest Landscape Integrity Index provides an index of the overall level of degradation for all forests on a continuous scale from highest to lowest levels of integrity (Grantham et al., 2020) over the period 2017-21. It uses indicators of degradation, combining observable pressures within pixels (agriculture, forest cover loss, and infrastructure), inferred pressures (e.g., edge effects, overharvesting), and losses of forest connectivity in the surrounding landscape, to obtain an overall score. The Glasgow Declaration calls for an end to land degradation. Therefore, the 2030 target is set at the same level as the 2018-20 baseline.

Regional level estimates for the Congo Basin show that forest degradation and fragmentation dynamics can be precursors to deforestation. Open and secondary corridor forests are disproportionately disturbed compared to intact dense tropical forests. While the Index of Forest Landscape Integrity and other estimates provide a global view of degradation trends, recent scientific efforts specific to the Congo Basin have helped illuminate forest disturbance trends by forest type and forest fragmentation class. Between 2015 and 2020, it is estimated that 11 percent of regional deforestation (about 650,000 hectares) occurred in forests that were first fragmented before undergoing permanent conversion, with 18 percent of these areas (119,000 hectares) in intact core forests. During the same period, forest disturbance in the region was found to occur disproportionately in open, secondary, and shrub forests, which tend to be already fragmented. Although these forests represent a smaller proportion of the region's forest area, they are doubly susceptible to deforestation or degradation compared to more intact forests. Central dense forests, which account for up to 60 percent of the Congo Basin's forests, contain the greatest amount of aerial carbon per hectare and experience less than 30 percent of total deforestation.¹⁰⁹ Large intact ecosystems are potentially less affected by small-scale anthropogenic disturbance because of their inaccessibility, lack of equipment, and the tendency of these activities to take place in areas closer to human settlements.

3.2. DRIVERS OF DEFORESTATION AND FOREST DEGRADATION IN THE CONGO BASIN

Worldwide forest pressures are driven by a multitude of complex factors. Deforestation often results from a combination of direct and indirect drivers that overlap at different scales. The main drivers of deforestation in the Congo Basin are smallholder subsistence activities, infrastructure development, mining and extractive industries, forestry and timber activities, industrial agriculture, and more recently, oil exploration. The dynamics of these drivers vary between and within Congo Basin countries.

Deforestation and forest degradation monitoring data provide insight into trends of forest disturbances and their magnitude over time. Understanding the drivers of these trends allows for the identification of appropriate policies, actions, and incentives to address forest disturbance and target actions towards different actors.

Pressures on forests globally are influenced by a combination of direct (i.e., proximate), indirect (i.e. underlying), and other types of drivers (Figure 11). Direct drivers of deforestation are anthropogenic activities or non-anthropogenic events (such as fire) that explicitly impact land use and forest cover. Indirect drivers are a complex combination of economic, socio-political, institutional, demographic, and technological factors that influence the impact of direct drivers of forest pressure. Biophysical characteristics (e.g., topography and drought conditions) and societal triggers (e.g. social unrest, conflict, and movement) also impact forests.^{110,111,112}

Figure 11. Direct (i.e. immediate) and indirect (i.e. underlying) causes of deforestation and forest degradation

Source: Megevand et al. (2013),113 based on Geist and Lambin (2001)114



Many studies have sought to estimate and quantify the various direct threats to Congo Basin forests. The dynamics behind forest disturbances vary both between and within countries in the region. The main drivers of forest loss and degradation in the Congo Basin are smallholder subsistence activities, infrastructure development, mining and extractive industries, forestry and timber activities, industrial agriculture, and – in more recent years – oil exploration. Figure 12 summarizes the direct drivers of forest disturbance in the Congo Basin.

Direct driver	Scale	Driver description	Countries where drivers are present
Subsistence farming activities	Smallholders	This driver represents the activities of smallholder farmers in clearing unmechanized forest for agriculture in irregular agricultural fields, usually of less than 5 hectares. Subsistence agriculture is mainly for food products such as cassava, banana, and maize, which are also supplied to national markets. ^{115,116,117}	First cause of forest disturbance in Cameroon, the Central African Republic, the DRC, Gabon and the Republic of the Congo.
Infrastructure development	On a large scale	This driver represents the construction of roads or paths suitable for vehicular traffic, paving the way to reach previously inaccessible parts of the forest. ^{118,119} Transport infrastructure facilitates market access and further economic integration but exposes new land to environmental pressures, leading to loss of biodiversity and carbon stocks. ^{120,121,122,123} A 2019 study estimates that road networks inside forest concessions in Central Africa have doubled in volume since 2003, with the total length of roads outside concessions increasing by 40 percent. ¹²⁴	This is a smaller but growing engine in Cameroon, the Central African Republic, the DRC, Gabon and the Republic of the Congo.
Urban Expansion	Urban areas	This driver represents the expansion of settlements and accompanying built features resulting from a population explosion in large cities. ¹²⁵ For example, the 3.6 percent population growth rate in the Republic of the Congo is a major driver of deforestation. ¹²⁶ The expansion of built- up areas is also leading to significant forest loss in the DRC. ¹²⁷ Tropical forests are threatened by human degradation of natural animal habitats and by defaunation caused by urban expansion, resulting in a loss of biodiversity, species richness and composition. ¹²⁸	Important secondary driver of forest disturbance in Cameroon, Gabon and the Republic of the Congo.

Figure 12. Summary of direct drivers of deforestation and forest degradation in the region

Mining and quarrying	Industrial	This driver represents mechanized mining and extraction and involves extensive infrastructure, open pits, and exposed soils. These activities tend to expand infrastructure into sparsely populated areas, and investments in heavy infrastructure and a large sedentary workforce create additional pressures on forests. ^{129,130} These industries have focused primarily on mineral extraction, but there is growing interest in onshore oil exploration in the Congo Basin, particularly in areas overlapping with high carbon peatlands. ^{131,132,133}	Important secondary driver of forest disturbance in Cameroon, Gabon and the Republic of the Congo. A less important but growing factor in Cameroon, the Central African Republic and the DRC.
	Craft/small business	This driver represents non-mechanized and often dangerous forms of extraction, mainly carried out by artisanal miners from socio-economically marginalized contexts. ¹³⁴	
Forestry and wood	Industrial	This driver at the industrial level represents large cutting areas (>5 hectares), which could become an important factor in Cameroon, Gabon or the Republic of the Congo. ¹³⁵ In Gabon, up to half of the forest can be disturbed by an industrial logging project, causing significant structural changes, microclimatic alterations, soil compaction and erosion. ¹³⁶	Important secondary driver of forest disturbance in Cameroon, Gabon and the Republic of the Congo.
	Craft/small business	This artisanal-scale driver results in smaller-scale forest areas being harvested. ¹³⁷ These activities may include logging for wood supply chains but also the collection of fuelwood for household consumption or domestic markets, a crucial source of energy for a large population in a region where the level of connection to the electricity grid remains very low. ¹³⁸ These small-scale disturbances are difficult to monitor and identify. ¹³⁹	Small-scale logging is an important secondary cause of forest disturbance in Cameroon. Fuelwood extraction is a secondary driver of fores disturbance in Cameroon, Central African Republic, DRC, Gabon and Republic of Congo.

Agriculture	Industrial	Commercial agriculture tends to occupy larger tracts of land with homogeneous crops, such as palm oil, rubber, or coffee. These are mainly directed to global supply chains. ^{140,141} While agro-industrial concessions are allocated to the production of agricultural commodities, expansion into forest areas is a growing risk. For example, in southwestern Cameroon, 67 percent of oil palm expansion between 2000 and 2015 was at the expense of forest areas and outside of large agro-industrial concessions by non- industrial producers. ¹⁴²	Industrial agriculture is a primary driver of forest disturbance in Cameroon and an important secondary driver of forest disturbance in Gabon and the Republic of the Congo. This is a smaller but increasingly important driver in the Central African Republic and the DRC.
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The causes of deforestation and forest degradation often overlap with one another at various scales, and it is essential to discern the impacts of this diverse set of drivers. Small-scale agriculture and the construction of roads and settlements are the largest contributors to deforestation and forest degradation in the Congo Basin. Artisanal forestry also has an increasing impact on deforestation and forest degradation in the region.

An analysis of deforestation and degradation at the regional level reveals that multiple dynamics drive forest loss in specific localities, including various actors, motivations, and processes.¹⁴³ The most common overlapping drivers of deforestation and degradation are grouped into thematic classes, or archetypes (Figure 13). To address deforestation and degradation at the local scale, it is vital to understand these varied drivers and their impacts, not only targeted areas but also on their neighboring zones. For example, connecting infrastructure (such as roads or paths) can impact previously inaccessible areas and, in combination with agriculture, increase the cultivation of market-related commodities.

Figure 13. Observed combinations of deforestation and degradation drivers grouped into thematic classes. Adapted from Shapiro et al. (2022).

RURAL COMPLEX	ARTISANAL FORESTRY	INDUSTRIAL AGRICULTURE
The combination of smallholder subsistence agriculture with roads and settlements, with or without artisanal forestry, and without the presence of industrial activities.	Smallholder forestry activities, with or without other drivers, with human settlements and roads, but without small-scale agriculture.	Commercial or large-scale agriculture, as well as other factors.
INDUSTRIAL FORESTRY	INDUSTRIAL FORESTRY AND AGRICULTURE	INDUSTRIAL MINING
INDUSTRIAL FORESTRY Commercial or large-scale forestry, as well as other factors.		INDUSTRIAL MINING Mechanized mining, with or without the presence of other engines.

ARTISANAL MINING

Small-scale, non-mechanized mining that occurs with other engines, but without an industrial engine.

HUMAN INFRASTRUCTURE

Roads and human settlements, separately or together.



AGRICULTURE LINKED TO

Infrastructure and artisanal agriculture observed together, without villages or forests.



Between 2015 and 2020, subsistence agriculture by small-scale farmers in rural areas was the main driver of deforestation and degradation in the Congo Basin. Artisanal forestry increased, while industrial activities such as mining and agriculture remained at similar levels over the same period. Corroborating the results of previous studies, this study finds that the rural complex (a combination of small-scale agriculture as well as road and settlement construction) is the largest contributor to deforestation and forest degradation in the Congo Basin. The rate of degradation minimally changed between 2015 and 2020, while deforestation decreased before increasing again. Typically, 80 percent of deforestation is located within 3 km of the nearest road or settlement, while degradation extends to about 4 km from the nearest road or settlement. Artisanal forestry as a driver of deforestation and degradation increased throughout the measured period, with degradation showing a greater increase compared to deforestation. Figure 14 shows the proportion of annual deforestation and degradation associated with the different drivers.



Figure 14. Changes in drivers of deforestation over time, by proportion of annual deforestation and degradation (2015-2020). Adapted from Shapiro et al.

Although less widespread than other drivers of deforestation and degradation, industrial mining, forestry, and commercial agriculture cause forest disturbance in intact core forests, with a greater impact on carbon stocks and biodiversity. Such activities have many indirect impacts on intact or remote forest area, including opening up previously inaccessible forest areas to human settlement and leading to the use of forest resources for subsistence and other economic activities.

Although industrial mining, logging, and agricultural activities appear to have stabilized over the past five years, results show that these activities have the greatest impact on dense primary forests (Figure 15). Commercial activities are able to access harder-to-reach and more remote areas of intact forest using industrial machinery, to which smallholders, in contrast, don't have access. Corridor forests, which are generally secondary and more fragmented areas, are closer and more accessible for smallholder activities. Although smallholder subsistence activities remain the

most common driver of deforestation and degradation, industrial mining, logging, and agriculture, as well as artisanal mining and logging, are disturbing intact primary forests. Indirect impacts from these activities can be significant and are rarely considered in impact assessments of industrial activities.¹⁴⁴

Figure 15. Distribution of forest fragmentation classes in the study area (left) and the proportion of fragmented forest classes affected by disturbance associated with each

archetype. Proportions are estimated by the number of visually interpreted points. Adapted from Shapiro et al. (2022)



Direct drivers of deforestation are activities that have an immediate impact on forested areas. However, other underlying and structural factors – such as insecure land tenure and inadequate governance systems – also create new and exacerbate existing pressures on forests.

Coupled with increasing demand for commodities, a lack of land tenure security for local communities and weak forest governance are the main underlying factors that increase pressure on forests. Although specific country contexts determine which structural factors have the greatest impact, these three overarching factors are relevant in all Congo Basin countries. Worldwide, land tenure insecurity is one of the primary underlying drivers of deforestation and

tropical forest degradation. Years of research show that legally recognized community owned forest lands store more carbon, emit less greenhouse gases, and lead to much lower rates of deforestation than land owned by other actors. Community managed forests are also less expensive to implement than other conservation approaches.^{145,146,147,148} A recent study on the role of local communities in global forest conservation shows that the outcomes of forestry interventions by external actors tend to be ineffective and have negative social consequences.¹⁴⁹

In the Congo Basin, land management regimes are based on state control of land that is divided into large spatial units, mainly for forest concessions or strictly protected areas. Simultaneously, a large portion of forested land is also subject to customary land tenure by local communities, who have traditionally used and managed these areas. Under customary land tenure, rights to and use of land are governed by unwritten rules, practices, and norms. However, community lands are often in competition with other land use regimes, such as protected areas, logging concessions, extractive industries, and infrastructure projects.^{150,151} Additionally, most communities do not have legal titles to or ownership of their land. Cameroon has the highest percentage of land area where customary rights are legally recognized (9 percent, Table 5). More recently, the DRC has seen up to 3 million hectares of community forest land legally recognized – much of it in 2021 and 2022.¹⁵²

Country	Percentage of the country where the rights of Indigenous peoples and local communities are legally recognized	Percentage of the country where the rights of Indigenous peoples and local communities are not legally recognized	Total percentage of land held by indigenous peoples and local communities under customary rights
Cameroon	9.00%	72.00%	81.00%
Central African Republic	0.00%	81.40%	81.40%
DRC	0.53 - 2%*	86.71%	87.23%
Gabon	0.30%	84.30%	84.60%
Republic of the Congo	1.30%	84.90%	86.70%

Table 5: Legal recognition of community lands.Adapted from: Rights and Resources Initiative,RRI (2021)¹⁵³ and the Community Forest Database for the DRC.154

*Estimates for the DRC are presented as an estimated range, based on RRI data prior to 2021 and data from the Community Forest Database for the DRC. This database shows that approximately 2,981,358 hectares were granted to the community in the DRC from 2017 to 2022. Land tenure insecurity, poor governance, weak institutions, and a lack of law enforcement create an environment that hinders the protection and sustainable use of forests. In the Congo Basin, the illegal forest conversion for logging and extractive activities is rising. This illegal conversion is in addition to other fraudulent practices by forest stakeholders. Although data on the extent of illegal conversion in the Congo Basin is currently unavailable, international media reports have revealed the dynamics of illegal deforestation in remote forest areas^{155,156} and the growing concern about fraudulent and illegal practices in the forestry sector. In addition to weak institutions, rules of law, and law enforcement, poor governance allows illegal logging in the region.^{157,158,159} Assessing the governance performance of 54 African countries over a 10 year period, the 2020 Mo Ibrahim Index of African Governance report reveals that poor governance scores are a greater problem in Central Africa than in other parts of the continent.¹⁶⁰ The overall governance scores of the Republic of the Congo, the DRC, and Cameroon are increasingly deteriorating, while Gabon's governance score is showing warning signs for decline. Increasing demand for land in Congo Basin countries has also led to land grabs and conflicts, which is caused and exacerbated by poor governance.¹⁶¹



The causes of deforestation in the Congo Basin are varied, complex, and closely linked to several socio-economic factors within and outside the region. Actions and measures to address these drivers in an effective, fair, and equitable manner must therefore be interconnected. This chapter presents an overview of the measures and progress being made by regional and international governments and other stakeholders to combat deforestation.

This monitoring of progress in the fight against deforestation in the Congo Basin is anchored by the *Forest Declaration Assessment* thematic approach and indicators (Table 1 and Appendix 1). The results of this chapter are detailed within the five priority areas listed below. By understanding the state of ongoing progress in the fight against deforestation across these five axes, a mechanism can be established to monitor the progress on each axis by 2030.

- The fight against deforestation requires the development of coherent and appropriate public policies. Chapter 4.1 presents the legal and institutional frameworks governing forest policy in the Congo Basin. This section explores the link between economic development policies and forestry policies and discusses the actions of consumer countries to combat imported deforestation.
- 2. Appropriate forest governance requires the strengthening of monitoring systems and the improvement of transparency to reduce illegal activities. A major challenge is the implementation of public policies and regulations. **Chapter 4.2** discusses progress in terms of **governance, monitoring, and transparency**.
- The effective and fair implementation of forest protection policies is rooted in the strengthening of land tenure security and the recognition of community rights.
 Chapter 4.3 explores progress in these areas, particularly in terms of recognition of Indigenous peoples' rights.
- 4. **Non-state actors**, including civil society and businesses, have an important monitoring, expertise, and communication role to play in forest-related decisions. **Chapter 4.4** explores the role of non-state actors in forest decision making, with particular attention to vulnerable groups, including women.
- Implementing public policies to combat deforestation requires the collaboration of the international community, particularly in terms of financing. Chapter 4.5 examines international financing and its alignment with forest conservation objectives.

As a reminder, the term "forest goals" in this report refers to the objectives of protecting, restoring, and sustainably managing forests that are aligned with the goals of the Paris Agreement and the Glasgow Declaration. These objectives include reducing deforestation and forest degradation, restoring forested land, and sustainably using production forests (Chapter 1). Forest goals involve actions by national and subnational governments, as well as businesses, Indigenous peoples and local communities, and other stakeholders.

4.1. DEVELOPING PUBLIC POLICIES TO COMBAT DEFORESTATION IN THE CONGO BASIN

Key messages

- The countries of the Congo Basin have legal frameworks that aim to regulate the management and protection of forests. However, the lack of regulations and guidelines hinders implementation of these laws. Sectoral laws and regulations that contradict forest policies are also obstacles to the implementation of forest goals.
- Responsible forest use is needed to reconcile poverty alleviation and economic development with forest conservation. Yet, current economic development plans are inconsistent with sustainable forest use. Oil, gas, and mining permits impact up to 48 percent of intact forest landscapes in some countries, including the Central African Republic, DRC, Gabon, and Republic of the Congo, and nearly one-third of the region's logging concessions overlap with protected areas.
- Strengthening forest management at the local level is necessary to address poverty and deforestation. This requires adapted land use planning policies and the clarification and securing of IPs and LCs' rights in legal frameworks. The implementation of land use laws and plans will depend on the involvement of affected communities in land use decision-making. Other key initiatives include assistance programs for smallholders and awareness campaigns on forest management conventions and laws with various stakeholders.
- Five of the six Congo Basin countries have been engaged in the REDD+ process since its inception. Nevertheless, REDD+ implementation has not been easy for participating countries, which have expended significant effort and capacity but seen few results in terms of funding. The lack of funding at the international and national levels is a challenge for the REDD+ process, which cannot compete financially with revenues from other land uses.
- Some import markets are putting measures in place to address imported deforestation. Although the production of forest-risk commodities for export is not currently a major driver of deforestation in the Congo Basin, potential future increase in the export of forest products from the region makes these policies relevant.
- Evaluation frameworks and monitoring systems for the implementation of these strategies, their means, and results, will allow for an assessment of progress in terms of the fight against deforestation. However, it is difficult to define indicators for monitoring deforestation and the impact of public policies without characterizing and harmonizing forest and deforestation terminologies.

4.1.1. Legal and institutional frameworks

Congo Basin countries have legal texts governing forest management and protection. However, a lack of relevant legislation still hinders the implementation of these legal statutes. Other sectoral laws whose guidelines at times contradict with forest goals are additional obstacles to the implementation of forest policies. One reason for the difficulties in implementing forest goals is that decisions relating to forests – or having an impact on forests – affect the portfolios of many ministries, whose objectives are not always consistent.

The main land use strategies of governments include the division of forested lands into large, sometimes overlapping areas that governments yield control over.¹⁶² Countries have established forest codes and national REDD+ strategies, which outline countries' approaches and commitments to results-based payments for reducing deforestation and forest degradation (Table 6). Forest units are primarily governed by two types of laws: first, those related to the creation and maintenance of protected areas or permanent forest domains, and second, those related to forest concessions, which are located in the permanent forest domain. Despite significant investments in sustainable land use strategies, studies have shown that these frameworks have not prevented the logging industry from often conflicting with forest protection and peoples' rights.¹⁶³ Greater coherence between the different legal frameworks within each country will align their objectives and facilitate their implementation.

CAMEROON	GABON
• Forest Code (Law No.94/01 of January 20, 1994): set of provisions applicable to forests, wildlife, and fisheries. The law's objective is to support the integrated, sustainable management of the conservation of various ecosystems and use of such resources. ¹⁶⁴	• Forest Code (Law No.016/2001 of December 31, 2001): a set of provisions applicable to the Water and Forestry sector. The code enshrines the terms for the sustainable management of the forest sector. It's objective is to in increase the sector's contribution to the economic, social, cultural, and scientific advancement of Gabon. ¹⁶⁶
 National Strategy for Reducing Emissions from Deforestation and Forest Degradation, Sustainable Forest Management, Forest Conservation and Enhancing Carbon Stocks (REDD+ Strategy, 2018)¹⁶⁵ 	• Law No.007/2014 of August 1, 2014: lays out the specific provisions applicable to environmental protection in the Gabonese Republic. The law defines several general principles of Gabon's policy toward environmental protection. ¹⁶⁷
	• Law No.003/2007 of 27 August 2007 on national parks: this law also deals with issues related to forest governance. ¹⁶⁸

Table 6. Main forest policies in the countries studied

DEMOCRATIC REPUBLIC OF THE CONGO

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- Forest Code (Law No.011/2002 of August 29, 2002): a set of provisions governing the status, management, conservation, exploitation, surveillance, and policing of forests and forest lands. The code deals with myriad issues related to forests, including their status; various rights of use; protection measures; the different interventions related to their inventory, management, and reconstitution of forests; general principles related to the forms of forest concession contracts; their mode of exploitation; forestry taxation; penal provisions and transitional and final provisions.¹⁶⁹
- National REDD+ Framework Strategy of the DRC (2012).¹⁷⁰
- Forest Code (Law No. 33/2020 of July 8, 2020): primarily aims to establish an appropriate legal framework that ensures the conservation and sustainable management of forests, based on participatory management and rational development of resources.¹⁷¹ The code is reinforced by a series of subsequent texts, in particular Decree 2002-437 of December 31, 2002, which sets the conditions for the management and use of forests. The code is also reinforced by ministerial decrees on national directives for the sustainable management of forest concessions, the creation of forest management or exploitation units, the modalities for classifying and downgrading forests, forestry taxation, etc.¹⁷²
- Forestry Policy (2014-25)¹⁷³
- National Action Plan for the Environment, dated 1996 and revised.¹⁷⁴
- Republic of Congo National REDD+ Strategy (2016).¹⁷⁵

To regulate land use and limit forest loss in the Congo Basin, land use laws and plans are either in place or being developed. While the development of relevant legal and institutional frameworks is an important step forward, their real impact on deforestation and forest degradation will depend on their effective implementation. The active involvement of communities impacted by land use decisions is also necessary for the success of such laws and plans.

Effective land use requires clear, transparent, and inclusive allocation of land for activities aligned with development and conservation goals. Land use plans should avoid the overlap of high-impact activities on forest lands, including IFLs. Cameroon¹⁷⁶ and the Republic of the Congo¹⁷⁷ adopted laws on land use planning in 2011 and 2014, respectively, which established a general legal framework for spatial land use issues from a sustainable development perspective. The law on land use planning in the DRC is currently being submitted. Gabon does not have a land use planning policy in place, but the Gabonese government has demonstrated a political will to manage land use according to the principles of the green economy.¹⁷⁸ A Gabonese national land use plan is being developed and finalized with support from CAFI, among help from other

organizations.¹⁷⁹ Ongoing reforms in Cameroon and the DRC aim to consider the role of local authorities in territorial planning, creating an important interface between communities and national strategies and allowing for the inclusion of participatory approaches that integrate peoples' rights.¹⁸⁰ Similarly, the DRC's National Land Use Policy¹⁸¹ was approved in 2020 and its National Strategic Development Plan¹⁸² is being rolled out at the provincial level. The coherence of these policies is important to ensure that activities impacting forests are aligned with forest conservation objectives.

The true impact of frameworks that combat deforestation also depends on the cross-sector alignment of objectives and decisions, such as those between ministries governing agriculture, mining, and infrastructure development. Results find that cross-sectoral harmonization is often lacking in Congo Basin countries.

Various civil society actors indicate that exploited loopholes promoting forest destruction can result from the absence or delay of new or amended forest laws. The alignment between new and pre-existing initiatives is essential to avoid policy duplication, which wastes already strained financial and human resources.

In addition to forest and environmental ministries – which, in many countries, are primarily responsible for developing policies for the protection, conservation, and regulation of forests – other ministries (like those of finance, water, agriculture, and mining and land use) also play a key role in forest policy development. In particular, economic policies implemented by other ministries are not always consistent with forest code objectives. Control, inventory, and public agencies related to the conservation of forests and protected areas also play a role in the implementation of policies and their monitoring (Annex 2).

Observations from civil society actors in the Congo Basin suggest that strengthening forest management at the local level is necessary to combat poverty and deforestation. This process begins with clarifying and securing LCs' land tenure rights in legal frameworks. Other key steps include the implementation of smallholder assistance programs and the development of awareness campaigns on forest management laws with various stakeholders.

Integrating land rights into legal reforms, forest strategies, and implementation-related legislation is essential to LCs' abilities to pursue livelihoods, effectively govern their lands and territories, and exercise their rights to self-determination. Local people must be involved in decision-making to ensure effective outcomes of legal reforms. Congo Basin countries have emphasized the need to address the link between LCs and decision-making capacities within their forest strategies and objectives, but examples of concrete policies remain scarce. One regional example of involving LC in forest decision-making is from Gabon, where the right to benefit sharing resulting from logging has been implemented and has helped set up a local development fund allowing LC to carry out

projects of community interest to fight rural poverty.¹⁸³ A central monitoring indicator relates to the recognition of the territories of IPs and LCs.

Evaluation and monitoring strategies help assess progress toward the fight against deforestation. However, it is difficult to define indicators for monitoring deforestation and the impact of public policies without defining and harmonizing forest and deforestation terminologies.

The basic definitions of *forest, deforestation, forest degradation, intact forest,* and *primary forest* are not ubiquitous. Only four of eleven COMIFAC countries have defined the term forest, and definitions of forest cover rates, tree heights, or the minimum area that constitutes forests vary between countries.¹⁸⁴ The Economic Community of Central African States (ECCAS) has taken steps for unifying forest-related definitions, most notably through an August 2021 workshop on the theme of defining forest terms.¹⁸⁵ However, significant progress is still lacking. Diverse forest definitions and areas of uncertainty can hinder the development of indicators for monitoring public policies. For example, the DRC is committed to not allocating industrial agricultural concessions in high-value forests¹⁸⁶ but the definition of these forests has yet to be developed. This diverse set of definitions can also cause difficulties comparing deforestation data across countries and time.¹⁸⁷

4.1.2. Aligning economic development and forest protection

Congo Basin countries face the challenge of reconciling development objectives with commitments to preserve their forests. Responsible forest use is needed to reconcile poverty alleviation for local populations with economic development and forest conservation. Current economic development plans and legal frameworks for mining and forestry sectors remain inconsistent with sustainable forest use. A large percentage of forested land – which includes IFLs and protected areas in the Congo Basin – is affected by current economic activities. Nevertheless, some countries are putting in place policies to reduce or mitigate the impacts of economic activities on forests.

Governments have considerable influence over forest, land and resource use. They can align macroeconomic and development priorities with forest objectives to minimize deforestation and forest degradation, both at home and abroad. Aligning forest objectives and balancing trade-offs with other objectives does not mean that all deforestation can be stopped. It means that the contributions and services of forests to current and future generations are carefully assessed and regenerated forest goals.

Both globally and within the Congo Basin, environmental conservation priorities – including those related to forests – are often superseded by economic growth concerns. Considering the rapid population and economic growth within the Congo Basin, many countries in the region have ambitious development plans, which highlights the need to align these with sustainable land use decisions. Although many identify environmental protection as an important issue, most regional development plans include implementing large transport, infrastructure, and energy sector projects without assessing their alignment with forest goals (Box 3). Because of the major economic windfall related to extractive industries, governments within various Congo Basin countries having shifted their priorities from protecting forests to allocating land for industrial purposes. Also persistent is a lack of transparency related to revenue generated from extractive industries. Effective inter-ministerial coordination can support improved coherence of these diverse national priorities, and better align national policies with the international commitments formulated within countries' NDCs.

Box 3. The main lines of development strategies in the four countries studied CAMEROON

The **Cameroon National Development Strategy 2030 (NDS30)**¹⁸⁸ intends to supersede the country's **Growth and Employment Strategy Paper (GESP)**¹⁸⁹ in order to continue Cameroon's development efforts on a 2030 horizon. National and international commitments are articulated around three themes: economic, social and environmental. **The SDN30** intends to contribute to achieving the objectives of the Vision Cameroon emerging country by 2035, a slogan that reflects the high-level commitment of the country to reach a certain level of development by 2035. This vision has four main objectives:

- Achieving near double-digit economic growth
- Attaining a manufacturing output equivalent to 25 percent of GDP
- Reduce the poverty index to below 10 percent by 2035
- Strengthen democracy, diversity, and national unity

The SDN30 aims to ensure economic growth is aligned with social and sustainable development by strengthening adaptation, mitigation, and environmental management measures. The plan indicates targets for various sectors of activity, including:

Agriculture

- Prioritize agro-industrial development in the cotton, cocoa-coffee, palm oil, sugar, rubber, rice, maize, plantain, fish, milk and meat sectors in order to guarantee food system self-sufficiency and serve the markets of the ECCAS and the Economic Community of West African States
 - Increase annual cotton production by 600,000 metric tons per year by 2025
 - Achieve a 50% industrial transformation level of local cotton industry by 2030
- Lead an agricultural revolution (i.e. the intensification and modernization of agro-industrial activities) in rural areas in order to increase agricultural productivity and reduce poverty. Emphasis will be placed on the following sectors: rice, maize, coffee and cocoa, cotton, sugar cane, palm nuts, rubber trees, sorghum, cassava, potatoes, plantains, milk, honey, fish, meat, and non-timber forest products
- Improve access to farming inputs and promote the most innovative technologies in the agricultural sector
- Develop new financing systems in the agricultural sector

Mining and quarrying

- Invest in the forming of national research laboratories to allow the development of extractive industries in the mining-metallurgy-steel and iron sectors
- Develop the country's oil and gas potential

Logging

- To move towards a wood processing industry up to the third level of transformation (production of timber products such as furniture, pallets, paper, etc.) allowing the creation of a local industry for the production of goods and services; to produce goods and services locally
- Finalize the reform of state-owned land and continue the program to build up land reserves and create and develop state-owned housing estates
- Strengthen the judiciary and ensure that all citizens have access to justice

Infrastructure

- Accelerate the production of energy (biomass, hydroelectric, and other forms of new energy) so that the country is self-sufficient and becomes an energy exporting country
 - Increase installed power generation capacity to 5,000 megawatts by 2030
- Develop the rail transport network and expand urban mass transport services (e.g. Skytrains, Metro, tramway, etc.), and create resilient and connected cities (like through the Urban Renewal Program) and facilitate regional integration
- Build the necessary road infrastructure to open up the agricultural production basins
- Build, maintain, and rehabilitate road, rail, sea, river, lake and air transport infrastructure
- Build water and sanitation infrastructures to improve access to drinking water and reach a sanitation rate of around 60% by 2035
- Ensure that climate change concerns are addressed
- Pursue regional land use plans

GABON

The **Emerging Gabon Strategic Plan**¹⁹⁰ sets out the strategic orientations, programs, and actions necessary for an 'Emerging Gabon' by 2025. The plan is based on the development of human capital and intends to respond to three major challenges:

- Accelerating and diversifying the sources of economic growth
- Reducing poverty and social inequality
- Improving the sustainable management of resources for the benefit of future generations

Agriculture

- Increase fertilizer production
- Develop the national agricultural potential to guarantee food security, particularly within oil palm.
- Rethink the National Land Use Plan in order to allocate land use for the agricultural sector
- Set up an agricultural competence center
- Develop peri-urban agriculture through the Agricultural Investment and Development Project in Gabon for small-scale production of tubers, fruits and vegetables, and other market garden produce. Additionally, develop agropastoral farms within provinces
- Develop the Nerica Rice Infrastructure Development Support Project, which includes the development of approximately 6,000 hectares of irrigated land and lowlands with funding from the African Development Bank
- Define specialized agropoles in the regions of Woleu Ntem, Ngaounié, the Ademe plains of Ndendé and Boumango

Mining and quarrying

- Boost oil production
- Develop the metallurgy (Bellinga metallurgy cluster) and liquefied natural gas sectors
- Create Gabon Steel for the production and processing of manganese and iron ores

Logging

- Position Gabon as a world leader in tropical wood
- Implement conservation policies for sustainable forest management, including 13 national parks covering 11 percent of Gabon's territory
- Formalize the logging sector and related certification
- Revise the forestry code to ensure both sustainable forest management and a competitive wood processing industry
- Promote ecotourism

Infrastructure

- Develop basic infrastructure in the transport, energy and telecommunications sectors
 - o 100 percent of energy produced by hydroelectricity and gas by 2025
 - 50 percent reduction in energy costs in public administration buildings
 - Build water infrastructure for universal access to drinking water and sanitation services
- Ensure that infrastructure development takes into account the climate footprint in accordance with Gabon's Climate Plan
- Build infrastructure to support the fishing industry
- Construct 35,000 social housing units
- Restructure and rehabilitate precarious neighborhoods

THE DEMOCRATIC REPUBLIC OF THE CONGO

The **National Strategic Development Plan 2019-23**¹⁹¹ is based on five strategic pillars: (1) the enhancement of human capital, as well as social and cultural development; (2) the strengthening of good governance, the restoration of State authority, and the consolidation of peace; (3) the strengthening of economic growth and the diversification of the economy; (4) the development of the territory, the reconstruction and modernization of infrastructure; and (5) the protection of the environment, the fight against climate change, and the sustainable and balanced development

The **Growth and Poverty Reduction Strategy Paper, 2nd generation**¹⁹² defines the medium-term planning framework for adapting public policies to changes in the economic and development context.

Agriculture

- Develop agroforestry and mechanized food agriculture
- Create the National Fund for Agricultural Development
- Support farmers in the creation of agro-industrial parks, and in the transformation of food products

Mining and quarrying

- Combat child labor in mines and artisanal mining sites
- Create the general inspection of mines
- Promote the metal and steel industries
- Fight against the illicit marketing of minerals in neighboring countries
- Strengthen traceability mechanisms and mineral certification systems
- Develop community development policies in rural areas
- Revitalize the oil and gas production sector

Logging

- Develop forest mapping
- Formalize the logging sector and its certification (e.g. forest law enforcement, governance and trade regulations, FLEGT)
- Protect the forests and peatlands of the Congo Basin
- Participate in the reforestation of approximately 3,000,000 hectares over five years
- Ensure the proper management of forest concessions to protect local communities and create community forests
- Develop the wood value chain up to the third transformation (timber transformation activities such as producing furniture, pallets, paper, etc.)
- Facilitate the local transformation of raw materials
- Develop ecotourism in parks and protected areas
- Ensure sustainable forest management and build climate resilience

Infrastructure

- Build new schools in rural and peri-urban areas and restore approximately 50,000 classrooms
- Promote the emergence of regional integration projects
- Maintain, repair, rehabilitate, and rebuild road, water, air, and rail infrastructure
- Ensure access to reliable electrical power
 - Increase the available power by more than 600 MW
 - Achieve a 50 percent electrical service rate by 2023 compared to the current 18 percent.
 - Increase the capacity of the Inga I and Inga II power dams to 1,300 MW
- Develop regional interconnectivity infrastructure for electricity exports
- Develop the necessary infrastructure for gas and renewable energy production
- Build water infrastructure for access to drinking water and improve sanitation services

THE REPUBLIC OF THE CONGO

The National Development Plan (NDP) 2022-26¹⁹³ (the successor to the NDP 2012-16¹⁹⁴ and NDP 2018-22¹⁹⁵) reflects the country's new orientation towards economic and financial governance and economic diversification. The **Growth**, **Employment and Poverty Reduction Strategy Paper (DSCERP 2012-16)**¹⁹⁶ aims to consolidate peace and boost the economic development of the Republic of the Congo.

Agriculture

- Develop agriculture in the broadest sense: agroforestry, land cultivation, fishing and livestock
- Increase the productivity of feed manufacturing inputs
- Strengthen resources and skills in the agricultural sector (e.g. financing and mechanization)

Mining and quarrying

- Develop the mining industry

Logging

- Build capacity for the implementation of the National Afforestation and Reforestation Program (ProNAR)
- Carry out the PREFOREST project (Green Climate Fund)
- Establish community plantations (wood-energy species)
- Develop the forest industry

Infrastructure

- Develop industrial zones called "Special Economic Zones" in Pointe-Noire (2,990 hectares), Oyo-Ollombo (760,318 hectares), Ouesso (379,639 hectares) and Ignié (223,810 hectares)
- Build infrastructure for tourism development
- Build and rehabilitate administrative, public, and economic infrastructures
- Strengthen basic infrastructure: roads, water, electricity and sanitation

A significant percentage of forest land, including IFLs and protected areas in the Congo Basin, is impacted by current economic activities. Since the 1930s, there has been a general increase in the size of protected areas in Central Africa, with 14.8 percent of Central African land area considered protected and covering just under 800,000 km², or 80 million hectares.¹⁹⁷ However, recent assessments show that a significant portion of these protected areas and IFLs overlap with existing or planned logging, mining activities, and oil and gas exploration or extraction. Nearly one-third of Central Africa's logging concessions overlap with protected areas (Figure 16). Current oil, gas, and mining permits impact up to 48 percent of IFLs in some countries, including the Central African Republic, the DRC, Gabon, and the Republic of the Congo (Figures 17 and 18). These estimates suggest that critical forest areas are at high risk of being disturbed by industrial activities. It is important to note that networks of protected areas themselves have been linked to negative social impacts and abuse of the rights of IPs and LCs, without necessarily improving the effectiveness of species protection.¹⁹⁸

Efforts are being made in some Central African countries to reduce or mitigate the impacts of economic activities on forests, improve consistency in this area, include environmental considerations in mining codes, and improve transparency. For example, Gabon revised its mining

code in 2019 to require environmental and social impact assessments, as well as management plans to regulate and restore forests. Prior to any mining exploration or exploitation project, these assessments must be approved by both the Ministry of Water and Forests, Sea, Environment, and the Ministry of Mines and Industry. Gabon's mining code also requires a contribution to two funds of between 1 and 5 percent of revenue to finance corporate social responsibility projects.¹⁹⁹

Figure 16. Network of protected areas and areas dedicated to logging activities in Central

Africa. Areas in blue represent protected areas. Areas in orange represent logging concessions known to have a formally validated sustainable forest management plan or one under development. Areas in red illustrate forest areas currently dedicated to logging but which have no formal management plan or whose status is uncertain. Adapted from: Réjou-Méchain et al. (2021)²⁰⁰



Figure 17. Oil and gas permits overlapping intact forest landscapes. Forest Declaration





Figure 18. Mining permits overlapping intact forest landscapes. Forest Declaration Assessment

analysis, based on: Tchoumba et al. (2020)



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4.1.3. Regional engagement in REDD+

Since the program's inception, Congo Basin countries have been engaged in the REDD+ process. Despite the countries' engagement, REDD+ implementation has not been easy for participating countries in the Congo Basin. REDD+ implementation requires significant effort and capacity building from governments. The preservation of forests that are not in immediate danger – which is the case for most forests in the Congo Basin – is not yet rewarded by the REDD+ process. The REDD+ process also suffers from a lack of substantial funding at international and national levels, which cannot compete financially with revenue from other land uses. While REDD+ strategies often identify the drivers of deforestation across countries, the actual development and implementation of necessary policy reforms remains a challenge. The benefits of REDD+ to forest communities remain to be clarified.

REDD+ is an international process established under the UNFCCC. The process recognizes the role of forests in combating global warming and provides a mechanism for developing countries to protect and sustainably manage their forests. Five activity categories contributing to forest sector mitigation efforts are included within the process: reducing emissions from deforestation, reducing emissions from forest degradation, increasing forest carbon stocks, the role of forest conservation, and sustainable forest management. Five of the six Congo Basin countries have participated in the World Bank's Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Fund²⁰² with the aim of instituting the readiness elements of the REDD+ process as defined in the Warsaw Framework.^c In addition, countries are expected to prepare, negotiate, and sign Emission reductions. This is a resource- and capacity-intensive process; for example, the DRC received nearly USD 8.8 million in grants to prepare the purchase agreements. Although the DRC began engaging in the REDD+ process in 2010, an agreement with the World Bank was only signed in 2018 and did not come into effect until September 2022.²⁰³

The enormous effort required by Congo Basin countries may not be commensurate with the results and funding that the REDD+ process could generate. Under REDD+, countries are compensated for actions that prevent forest loss or lead to increased forest cover. However, the preservation of existing forests – such as those in Congo Basin forest countries – is not rewarded.²⁰⁴ This payment structure disadvantages countries with historically lower deforestation rates, since the required effort for receiving REDD+ performance-based payments may be considered too

^c The Warsaw Framework states that countries must establish a national REDD+ strategy, a safeguards information system, national forest monitoring systems (measurement, reporting, and verification), and reference emission levels or reference levels, in order to receive performance-based payments
great. Additionally, payments based on REDD+ results may be insufficient compared to revenues from other activities that may lead to deforestation, according to a 2021 assessment of the status of REDD+ in the Congo Basin. For reference, with an expected annual cash flow of USD 15 million, the bilateral agreement between Gabon and Norway represents only about 0.4 percent of the Gabonese government's annual budget.²⁰⁵

While national REDD+ strategies identify the complex drivers of deforestation in each country, the formulation and implementation of sectoral policies consistent with these strategies remains a challenge. There is no apparent coordination among the numerous REDD+ initiatives underway and governance tools are often incomplete and inoperable, even with extensive preparation phases.²⁰⁶ The lack of coherence between sectors that impact forest loss (e.g., forestry, agriculture, mining) limits progress on the REDD+ agenda. For example, Cameroon's REDD+ readiness phase was interrupted due to a lack of sectoral alignment, with six of the country's ministries having conflicting policies regarding REDD+. Such cross-sector alignment requires REDD+ programs to move from sectoral programs that depend solely on specific, niche government units towards programs that are institutionally anchored on a macro political level.

With the aim of coordinating global warming mitigation, forest protection, and REDD+ actions, inter-ministerial committees and councils are either in place or being established in each of the countries studied.²⁰⁷ The involvement of the Republic of the Congo's inter-ministerial committee in developing projects under CAFI funding, for example, has allowed these projects to incorporate a multi-sectoral approach. Efforts have been made in the DRC and Gabon to ensure a high-level political anchoring of REDD+ objectives at the national level, through the REDD+ program under the Ministry of Finance (Fonds National REDD+, FONAREDD) and the President's Office (Conseil National Climat, CNC), respectively. Despite these efforts, implementation challenges remain. Since 2009, the DRC has announced a series of policies to support the program, such as reforms to land tenure, land use planning, agricultural policy, and community rights to equitable distribution of benefits. However, none of these reforms have materialized to date, due to political changes and a lack of funding, capacity, and political will.^{208,209} Despite the existence of these interministerial committees, policy coherence at the highest level is not always ensured, suggesting barriers to their effectiveness.

At the local level, the involvement and participation of non-state actors (such as forest communities and women) in the REDD+ process is insufficient. From the vantage point of civil society and LCs, the perception is that the REDD+ program has paid little or no attention to tangibly securing land rights and reducing the risk of associated conflicts (e.g. land tenure insecurity of forest communities, land grabbing and price inflation, traditional practices, and risks of conflict, displacement, and illegal capture of REDD+ benefits). It is not yet clear who will benefit from REDD+ activities, how benefits will be distributed, and whether co-development objectives will be met. For example, analyses of a REDD+ initiative in the DRC showed that marginalized

populations have not been included in decision-making and that free, prior, and informed consent (FPIC) is implemented in an incomplete and unequal manner. Women were also shown to be excluded from governance initiatives and their role in land management often ignored.²¹⁰ There is insufficient understanding of potential negative consequences of the REDD+ initiative, and limited provisions and remedies for communities to access the proposed benefits.

4.1.4. Initiatives to reduce imported deforestation

Countries importing deforestation-linked commodities are implementing measures to address imported deforestation. While imported deforestation is not currently a major driver of deforestation in the Congo Basin, countries within the region are increasingly exportoriented. This shifting orientation increases the relevance of global policies combating imported deforestation and emphasizes the need to ensure policies' consistency with Congo Basin forest and socio-economic goals.

A significant portion of global deforestation is related to commodities exported by forest countries.²¹¹ Due to growing global land scarcity and policy changes in parts of Asia and Latin America, increasing global demand for agricultural products may shift deforestation to the Congo Basin.²¹² While agricultural production in the Congo Basin is still primarily oriented toward domestic markets, a significant share of land is allocated to foreign investors – particularly palm oil production – and the region's production is increasingly positioned toward exports.^{213,214} Four countries within the Congo Basin – the DRC, Gabon, Republic of the Congo and Cameroon – are at greatest risk of agricultural expansion into forest areas. This is due in part to their high percentage of forest cover and the limited availability of cultivable land outside of forest areas.²¹⁵

Since the launch of the Forest Law Enforcement Governance and Trade (FLEGT) regulation, the European Union (EU) has undertaken a series of measures to limit the impact of imported deforestation. The FLEGT regulation allows for the development of voluntary partnership agreements (VPAs) between the EU and exporting countries. In these bilateral agreements, the exporting country commits to implementing domestic measures that ensure the traceability and legality of exported timber. In return, the exported timber benefits from a presumption of legality on the European market, which is materialized in the form of a FLEGT license.²¹⁶ The regulation was later complemented by the EU 2010 Timber Regulation, which prohibits placing illegally harvested timber on the European market and defines the preconditions – including the deployment of a due diligence system – for the marketing of timber and timber products.²¹⁷ Finally, in September 2022, the European Parliament approved the Deforestation Regulation²¹⁸ on the basis of a draft law formulated by the Commission in November 2021.²¹⁹ This establishes rules

encouraging the consumption of "zero deforestation" products with the aim of minimizing deforestation and land degradation associated with raw materials exported to Europe. Six raw materials are particularly targeted for the risk of deforestation associated with their supply chain: soy, beef, palm oil, wood, cocoa, and coffee.

Some European countries have also implemented national level initiatives to combat imported deforestation. Through the Environment Act passed in November 2021, the UK requires companies to implement due diligence systems for high forest risk commodities such as palm oil, soy, cocoa, rubber, beef, and leather.²²⁰ This regulation extends the legal obligation previously established for timber and timber products under the EU Timber Regulation of 2010, when the UK was still an EU member state. In France, the National Strategy to Combat Imported Deforestation was adopted in November 2018 and aims to end imported deforestation related to high-risk forest commodities by 2030.²²¹

The United States and China – the third and first largest importing nation of deforestation-related commodities, respectively, as of 2017222 - have also implemented measures to reduce the deforestation risk associated with their imports. In the United States, the Forest Act was introduced in the Senate in October 2021. The proposed legislation aims to prohibit the importation of agricultural products that have contributed to illegal deforestation.²²³ The Tropical Forest Conservation Reauthorization Act, which went into effect in January 2019, allows eligible countries to convert a portion of their debts to the U.S. towards conservation and nature protection funding in their territories.²²⁴ In July 2020, China's Forestry Law was amended by adding Article 65. This article states that "any timber harvesting or processing enterprise shall keep a permanent record of the input and output of raw materials and wood products, and no organization or individual shall purchase, process and transport timber with full knowledge of its illegal origin."225 A recent World Economic Forum report notes that while Article 65 provides the legal basis for preventing illegal timber from entering the supply chain, it is unclear whether this article includes imported timber and timber products and, if so, how to determine the legality of these products.²²⁶ It is worth noting that these initiatives will receive special attention from the international community, as the joint statement by China and the United States issued on November 10, 2021 at COP26 commits both countries to "work together to support the elimination of global illegal deforestation through effective enforcement of their respective laws on prohibiting illegal imports."227

Finally, imported deforestation can also be addressed through mechanisms internal to the Congo Basin. In June 2021, the states of the Central African Economic and Monetary Community (CEMAC) announced their intention to ban the export of logs in order to stimulate the industrialization of the wood processing sector in the region. This measure will allow the region to enact a harmonized forest code and a standard forest taxation policy and facilitate the development of a local, sustainable wood industry. By incorporating strong environmental and social safeguards, governments can help promote better control and traceability of forestry activities. The strategy could also create jobs, stimulate exports of high value-added processed wood products, and thus increase tax revenues. If governments fail to implement such safeguards and the wood processing sector does not perform as expected, there is a risk of worsening the trade balance of these countries and that illegal deforestation activities will increase in the region.²²⁸ To minimize these risks, the export ban, initially scheduled for January 2022, has been extended for one year to allow for a transition period during which a preliminary maturation study of investment projects in the wood processing industry will be conducted.²²⁹

4.2. STRENGTHENING FOREST GOVERNANCE THROUGH IMPROVED ENFORCEMENT, MONITORING AND TRANSPARENCY

Key messages

- Forest governance plays a fundamental role in ensuring the protection and sustainable management of forests, and in limiting illegal conversion. Fair and strong laws, effective monitoring and enforcement, and high levels of transparency are key elements of strong forest governance.
- The prevalence of illegality indicates shortcomings in the forest governance systems of Congo Basin countries. Corruption and political favoritism in the allocation and use of natural resource concessions are growing issues that undermine forest governance. Private companies engage in fraudulent practices with impunity. Major obstacles compromise the capacity of the judicial system to respond to forest crime in the region.
- Building human, operational, and financial capacity to monitor deforestation is an important step toward enforcing laws and reducing illegality. Some governments have made efforts to build capacity to monitor deforestation at the national level. However, the impact of these actions is not yet clear.
- Increasing transparency in the forest sector by making data, information, and decisions accessible to stakeholders can improve the accountability of forest sector actors. Efforts have been made by Congo Basin countries to improve transparency in the timber sector through participation in the EU's FLEGT initiative. However, progress has been slow, resulting in a decline in interest from countries.
- Civil society actors, including non-governmental and community-based organizations, are making
 efforts at the local level to improve forest governance. Many independent monitoring initiatives
 have been established based on collaboration between local actors and access to technology.
 Deforestation alerts issued through accessible and inexpensive remote sensing technologies have
 proven to be effective in strengthening monitoring and enforcement of forest protection
 measures. These tools are essential for holding governments, landowners, and companies
 accountable, and for promoting transparency.
- Countries in the Congo Basin have committed to improving transparency in the mining sector through the Extractive Industries Transparency Initiative (EITI). While progress is needed, this commitment has already led to increased transparency in the sector, notably in Cameroon, DRC, and Republic of the Congo.

Forest governance plays a fundamental role in ensuring the protection and sustainable management of forests and limiting illegal conversion. In the Congo Basin, illegal forest conversion and fraudulent practices among forest stakeholders are a growing challenge that exacerbate forest loss. Strong forest governance is composed of fair and strong laws, effective monitoring and enforcement, and high levels of transparency. Congo Basin countries have made progress in improving transparency through monitoring systems and civil society-led initiatives. However, levels of illegal activity in the Congo Basin remain high, and reducing these levels requires investments in capacity building, institutions, and law enforcement. Increasing the effectiveness of forest governance at the level of deconcentrated administrations (provincial and local) will contribute to the fight against deforestation.

Overall, the widespread prevalence of illegality indicates shortcomings in Congo Basin forest governance systems. Corruption and political favoritism in the allocation and use of natural resource concessions are growing concerns, particularly as private companies engage in fraudulent practices with relative ease. Major obstacles compromise the judicial system's capacity to take action against forest crime in the Congo Basin, fueling an environment of impunity. Bolstering human, operational, and financial capacities to monitor deforestation is a key step towards reducing illicit forest actions. Some regional governments have made efforts to build deforestation monitoring capacity at the national level. However, the impact of such actions on forest law enforcement and reducing misconduct is not yet clear.

Foreign companies and their local subsidiaries control large tracts of logging concessions. Plots of land obtained in the first half of 2018 by Asian companies covered more than 2.5 million hectares in Cameroon, Republic of the Congo, the DRC, and Gabon.²³⁰ In April 2022, an audit of the logging industry released by the government of the DRC revealed that six successive ministers had illegally awarded 18 logging concessions to private companies, in violation of the nearly 20-year moratorium on new industrial timber production.²³¹ Investigations by civil society whistleblowers in 2018 and 2019 revealed that European companies may be importing illegally sourced timber from the Congo Basin, through companies such as Norsudtimber that are suspected of flouting forestry laws and using illicit practices in the DRC.²³² In 2019, an investigation illustrated the extent of such unlawful corporate practices by highlighting the example of the Dejia Group, a Chinese logging company illegally harvesting timber from Gabon and the Republic of the Congo.²³³ The company has been criticized by civil society organizations both nationally and internationally for unscrupulous practices (e.g. corruption, law violations such as the over-exploitation of forests, conducting operations outside the framework required by forest management plans, and more).

Forest-related laws in Congo Basin countries do not provide mechanisms for legal recourse within the judicial system. Although some countries display inter-ministerial collaboration to combat wildlife crime, collaboration to combat illegal logging is hampered by corruption and the limited interaction between forest and justice ministries. A lack of awareness of forest issues may explain the difficulty in prosecuting allegations made by observers or forest protection entities. Courts and others aspects of the judicial system are uninformed of the seriousness of forest crime and its impact on biodiversity and ecosystem services.²³⁴ Further, most infractions are resolved through a "settlement," which bypasses the judge and allows offenders to reach an agreement with other parties rather than going to court. This process allows lawbreakers to avoid severe penalties. Because settlement negotiations are not made public, it is not clear that the negotiated penalties are commensurate with the seriousness of the offence.^{235,236}

Gabon has led the way in deforestation monitoring by institutionalizing remote sensing capabilities through the creation of the Agence Gabonaise d'Études et d'Observations Spatiales (AGEOS). The land cover maps produced by AGEOS are part of the National Observation System for Natural Resources and Forests and were produced in collaboration with the National Parks Agency. Together, these agencies monitor Gabon's national forest cover in real time and contribute to strengthening efforts to reduce deforestation in forestry, agriculture, and infrastructure sectors. Gabon assessed its national forest baseline and put in place a roadmap to monitor and update forest inventory data in a consistent manner.²³⁷ The DRC has submitted a first document on its national reference emission level under the United Nations Framework Convention on Climate Change (UNFCCC), covering emissions from deforestation.²³⁸ The country will attempt to incorporate data and estimates related to degradation in its next submission.

Congo Basin countries have made efforts to improve transparency in the timber sector through participation in the EU FLEGT initiative. However, FLEGT progress has been slow, which has resulted in a decline in interest from participating countries. Deforestation alerts using accessible and inexpensive remote sensing technologies have proven to be effective in improving monitoring capacities and enforcing forest protection measures. These tools are essential for promoting transparency and for holding governments, donors, and companies accountable for their forest decisions. Countries in the Congo Basin have also committed to improving transparency in the mining sector, which is a sign of progress.

To improve the transparency and accountability of the forest sector and its actors, data, information, and decision making processes must be made accessible to stakeholders. Three countries in the Congo Basin (Cameroon, the Republic of the Congo, and Central African Republic) signed voluntary partnership agreements (VPAs) with the EU more than 10 years ago, while Gabon and the DRC are still in the negotiation phase (Table 7). The implementation of the VPAs developed under the FLEGT initiative has helped increase transparency and simplified the independent monitoring of forests by civil society. In the Republic of the Congo, Cameroon, and the Central African Republic, all documents and information that governments commit to publicly disclose are listed in the annexes of the signed agreements. This simplifies access to forest management information for independent forest monitoring organizations.^{239,240} The DRC has also created a Guide for Legal Logging of Timber within its Technical Commission for VPA/FLEGT

Negotiations. This guide aims to provide simplified information to all actors in the timber harvesting sector on regulatory requirements to ensure legal compliance.²⁴¹ Despite these advances, the VPA implementation process remains complex. To date, no country in the Congo Basin has been issued a FLEGT license.²⁴² This is due to the technical and institutional barriers encountered by Congo Basin states, particularly in setting up systems for traceability and legal verification for produced timber. Additionally, negotiations with countries that have not yet signed a VPA (the DRC and Gabon) have been laborious and have required budgetary extensions that the states have sometimes found difficult to match. This is one of the reasons why Gabon interrupted the negotiations in 2012,²⁴³ before expressing its intention to relaunch the negotiations in 2019.²⁴⁴

Table 7. Overview of progress under the European Union's Voluntary Partnership Agreementfor Forest Law Enforcement, Governance and Trade (FLEGT VPA) in the Congo Basin.

Country	Status of engagement with the EU through a voluntary partnership agreement (VPA) and measures taken to improve transparency
Cameroon ²⁴⁵	2007: Start of negotiations 2010: Signature of the VPA 2011: Ratification of the VPA and start of the implementation phase.
Central African Republic ²⁴⁶	2009: Start of negotiations 2011: Signature of the VPA 2012: Ratification of the VPA and start of the implementation phase
DRC ²⁴⁷	2010: Start of negotiations
Gabon ²⁴⁸	2010: Start of negotiations 2012: Interruption of negotiations ²⁴⁹ 2019 : Gabon expresses willingness to restart negotiations
Republic of the Congo ²⁵⁰	2008: Start of negotiations 2010: Signature of the VPA 2013: Ratification of the VPA and start of the implementation phase
Equatorial Guinea	No formal commitment, NGO initiatives exist. ²⁵¹

Several independent monitoring initiatives have been developed by civil society actors, including non-governmental and community-based organizations. These initiatives rely on collaboration between local actors and access to technology. Deforestation alerts using accessible and inexpensive remote sensing technologies have proven to be effective in strengthening monitoring

and enforcement of forest protection measures. In the DRC, independent forest monitors^d have influenced the adoption of laws to protect the socio-economic rights of forest communities from logging companies. Information gathered by these monitors has led to an audit of the concessions violating the DRC's logging moratorium, resulting in the termination of the contracts of the logging companies involved. In Cameroon, various monitoring organizations collaborated to develop a Standardized External Observation System (SEOS), which allows authorities to monitor 76 percent of the situations flagged by the system between 2019 and 2020. This monitoring process has led to the seizure of timber, temporary suspensions of logging permits, and even sanctions against agents of the Ministry of Forests and Wildlife who are complicit in illegal logging activities.²⁵²

The ForestLink tool is a bottom-up approach to independent monitoring that directly engages Indigenous peoples in protecting their forests. In a mobile phone application provided including languages, all local community members can track and collect evidence of illegal activities on their land via real-time alerts.²⁵³ In doing so, the program enables local communities to defend their lands, report illegal activities and the destruction of their forests, and inform forest authorities about forest management and monitoring local issues.

In 2021, a study revealed the positive impact on Congo Basin forests of deforestation alerts from the Global Forest Watch (GFW) free platform,²⁵⁴ with an 18 percent reduction in the likelihood of deforestation in monitored areas compared to average observed levels between 2011 and 2016. Prior to having access to this inexpensive and simple technology, Central African countries had deforestation monitoring technologies at a limited scale compared to other forest regions. Law enforcement officials can use this new source of information in their enforcement interventions, as has been shown, for example, in Cameroon.²⁵⁵

Twenty African governments have adopted the standards of the Extractive Industries Transparency Initiative (EITI). The initiative aims to promote a more inclusive, transparent, and accountable management of mineral resources by improving governance systems, making information about extraction available to the public, and fostering greater trust among stakeholders. While much progress on these efforts is still needed, the EITI has made some progress on transparency in Cameroon, the DRC, and the Republic of the Congo. The organization

^d Independent forest monitoring is the assessment by a third party of the compliance of forest management and activities with the legislative and regulatory standards of the country's forest sector. These third parties are usually mandated civil society organizations or nongovernmental organizations, or external observers who act without a mandate. Mandated observers collaborate with the government. They have access to documents and data, while external observers do not. commended the latter's recent progress in implementing EITI standards on oil activities, including an online oil and gas cadastre system.²⁵⁶ After leaving the EITI process in February 2013, Gabon was readmitted as an implementing country in October 2021.²⁵⁷

4.3. LAND TENURE SECURITY FOR INDIGENOUS PEOPLES AND LOCAL COMMUNITIES

Key messages

- In the Congo Basin, colonial land governance systems, which were replicated by post-colonial regimes, led to the overthrow of the customary rights of IPs and LCs to the lands they had occupied for centuries in harmony with forest ecosystems.
- Land tenure security is a fundamental prerequisite for combating deforestation in a sustainable and equitable manner. DRC and Republic of the Congo have established policies and laws that recognize and protect the rights of IPs and LCs. Community forest laws establishing the rights and legal basis for communities to manage their forests are in place in Cameroon, Gabon, Republic of the Congo, and the DRC.
- Decentralization of forest management to the local level can improve forest governance while supporting sustainable rural development. Strengthening community forestry requires investments in rural development and governance, reforms of the legal system, and the introduction of administrative decentralization.
- The enactment of community forest management laws and policies does not guarantee implementation. Implementation challenges limit the benefits of laws to people and forests.
- Participatory land use planning processes can clarify community land rights, integrate land considerations into sectoral planning, and increase effectiveness of forest management. Efforts have been made to integrate local communities into land use planning processes in the region.

Globally, land tenure insecurity spurs deforestation and forest degradation in tropical forests. Formalizing community rights over customary rights and community common forest rights is an effective way to reduce forest loss.^{258,259,260} Across 27 World Bank FCPF countries, over 160 million hectares of forest land have been recognized as legally owned by IPs and LCs. Only 1.5 percent of land in Central Africa is legally recognized as belonging to IPs and LCs.²⁶¹

In the Congo Basin, colonial land governance systems – later replicated by post-colonial regimes – have led to the reversal of the customary rights of Indigenous and local peoples to the lands they have occupied for centuries in harmony with forest ecosystems. Positive progress is being made on land laws in Congo Basin countries. The DRC and the Republic of the Congo have established reference policies and laws that recognize and protect the rights of IPs and LCs.

Community customary rights include a set of rights to land and resources, plus established social norms and practices to settle disputes. In some Congo Basin countries, the lands traditionally held by local communities overlap with concessions granted by the state to third parties for conservation or economic use.^{262,263,264} Historically, this overlap has excluded communities from economic development. Conservation activities such as the establishment of protected areas have been established and managed with little regard for community rights.²⁶⁵ Civil society actors believe that securing agricultural land can reduce the expansion of unsustainable agriculture, collectively or individually, through community engagement in concerted actions for sustainable forest land management, including agroforestry, improved fallows, or reforestation. Indeed, in 2019, the deforestation rate in 57 community concessions studied in the DRC was 23 percent below the national average and 46 percent below the deforestation rate in logging concessions.²⁶⁶

Positive progress is being made on land laws. The Republic of the Congo was the first African country to adopt a national legislative framework for the protection of Indigenous peoples' rights in accordance with the UN Declaration on the Rights of Indigenous Peoples.²⁶⁷ The law establishes a legal basis for Indigenous peoples to protect and assert their rights, culture, and livelihoods.²⁶⁸ To this end, the legal framework ensures that consultations are held before any measures are implemented that affect IP's cultural or property rights; the demarcation of land based on customary law; the right to revenue generated by land use; and the requirement of free, prior, and informed consent. The Senate of the DRC has adopted a new *law on the promotion and protection of the rights of Indigenous pygmy peoples in the DRC*,²⁶⁹ which will be sent to the President for enactment.²⁷⁰ This legislation is the first in the country's history to officially recognize and protect the rights of a specific Indigenous community. The law also legally secures ancestral lands; protects and promotes traditional knowledge and practices of local communities; strengthens their capacity for sustainable management; and addresses the challenges of occupation and/or dispossession faced by forest communities.²⁷¹ Positive impacts can be expected if the law is enacted in its current form.

Land tenure security is a fundamental prerequisite for combating deforestation in a sustainable and equitable manner. Laws governing community forests can improve forest management. Community forest management policies face implementation challenges, which limit their effective application. The decentralization of forest management to the local level – which includes the establishment of community forests – can play an important role in improving overall forest governance and supporting sustainable rural development. A land-use planning process can clarify community land rights and integrate land tenure considerations into sectoral planning. The participation and inclusion of forest communities in these decisions is essential for effective processes.

The concept of community forests first appeared in the Congo Basin in 1994 in Cameroon's forestry code, which set a precedent for LCs in the Congo Basin.²⁷² Since that time, decentralization

of forest management has been identified as a model for natural resource governance in the region, with the dual objective of enabling sustainability and fighting rural poverty.²⁷³ Several models of decentralized forest management exist, but community forests remains the most comprehensive approach, focusing on developing local communities' decision-making power over forest management. Strengthening community forests requires increased investment, legal system reforms and the introduction of administrative decentralization.

Several policy and institutional reforms have been put in place in Cameroon and the DRC, notably through the Ministry of Decentralization and Local Development and the Ministry of Decentralization, respectively.²⁷⁴ These reforms require administrative measures to encourage and promote the marketing of community forest products, the development of specific frameworks for the sale of community forest products, and the introduction of a clause favoring community forest products in public procurement at the decentralized level.²⁷⁵

Community forest laws that establish rights and legal bases for communities to manage their forests are in place in Cameroon, Gabon, the Republic of the Congo, and the DRC (Box 4). Community forest management can increase the carbon absorption capacity of Congo Basin forests, improve rural livelihoods, reduce poverty, strengthen civil society organizations, and contribute to decentralized governance. ²⁷⁶

Box 4. Laws and policies on community-based forest management in the Congo Basin

countries

In **Cameroon**, the 1994 forestry law²⁷⁷ led to the creation of community forestry under Article 3(11) of Decree 95/531/PM of 23 August 1995.²⁷⁸ This law ensures that rural communities have access to forest resources. Order No. 0518/MINEF/CAB of December 21, 2001²⁷⁹ sets out the terms and conditions for the priority allocation of any forest likely to be set up as a community forest to the local village communities.

In **Gabon**, Law No. 002/2014²⁸⁰ sets out the fundamental principles and action objectives for public authorities, economic operators, and civil society to ensure the establishment of sustainable development and the well-being of current and future generations. This law supports other existing laws and programs such as Law No. 16/2001 of December 31, 2001 (on the Forest Code), Decree No. 001028/PR/MEFEPEPN of December 1, 2004 (setting the conditions for the creation of community forests), Order No. 018/MEF/SG/DGF/DFC of January 31, 2013 (setting the procedures for the allocation and management of community forests), and Order No. 106/MEFPRN of May 6, 2014 (on the right of reservation of a forest by a village community). Since then, the Gabonese legal framework has allowed communities to collectively manage forests with the aim of carrying out sustainable natural resource management activities while exercising customary use rights.²⁸¹

In the **DRC**, the adoption of Decree 14/018²⁸² regarding community forests allows local populations to take possession of a 50,000 hectare forest area for multiple uses. The Minister of the Environment and Sustainable Development has set up a database²⁸³ to monitor the progress made on community forests.

In the **Republic of the Congo**, the establishment of Law No. 33-2020 on the new Forest Code proposes reforms and new concepts in the areas of conservation, benefit sharing, and local development. The law integrates emerging themes such as the production sharing regime; the obligation for forestry companies to certify the management of their concessions and affiliated products; the valuation of plantation wood; the occupation tax and the residue tax; and finally, the clarifying of the concepts and modalities of the FLEGT voluntary partnership agreement (e.g. forest law enforcement, governance and trade).²⁸⁴

The existence of community forest management laws does not guarantee their effective implementation. Implementation of such policies is also, at times, inconsistent. Often dependent on external funding, community management is expensive to maintain and may not be competitive with local alternative solutions.²⁸⁵ In Cameroon, the maximum size of community forests is 5,000 hectares, which generally does not correspond to the area of forest traditionally occupied and exploited by communities. Additionally, the 25-year validity of community forest concession permits prohibits communities from considering long-term investments in their forests. Obtaining community forest status remains a complex process for local communities, especially given the low literacy rate and lack of development capacity. Resources allocated by the government for capacity building and technical assistance to communities remain insufficient.²⁸⁶ In the DRC, the complexity and high costs of establishing community forest management systems prevent communities from taking advantage of them.²⁸⁷ Overall, civil society actors note that many opportunities to expand community forests exist in the DRC. In other countries in the

Congo Basin, more restrictive laws, coupled with the fact that much of the forest land is already allocated (as protected areas, logging concessions, or for other uses), means that alternative approaches must be developed. In addition, it is critical to integrate community land rights into a broader range of laws, regulations, and policy reforms across various sectors.

Efforts have been made to harmonize the land-use planning processes in the Congo Basin. Managing land issues is a complex task. This is evidenced by, as one example, the large land area and conflicts in the eastern DRC. Combined with land tenure laws that were not adapted to current development issues, these factors led to the creation of the National Land Reform Commission (CONAREF) in the country. The objective of CONAREF is to guarantee land stability, promote inclusive development, and implement land policies that respect the environment.²⁸⁸ Since 2012, CONAREF has been working to eradicate land conflicts and related violence in the DRC by collaborating with civil society organizations. The commission is carrying out a land reform process to better protect the land rights of vulnerable groups (e.g., IPs, LCs, women, and children), and to improve land revenues by ensuring compliance with environmental and social sustainability standards.²⁸⁹ The land reform carried out by CONAREF is in line with the national REDD+ program in DRC. ²⁹⁰

Other initiatives are advancing the land planning process. The Central African Regional Program for the Environment (CARPE) – first implemented between 2003 and 2010 and then between 2012 and 2020 – aims to systematize land use planning in the Congo Basin.^{291,292} This process revealed that land use planning methodologies based solely on satellite imagery and remote sensing data for forest land zoning may be incompatible with land use and customary tenure. The land use planning process is most effective when forest-dependent communities are ensured participation.²⁹³ Other initiatives such as *MappingForRights* help communities contribute to the land mapping process, enabling more than 1,000 communities to produce land use maps and plans covering 9 million hectares. In the DRC, the Forest Dependent Communities Support Project, organized with the World Bank, focuses on building the capacity of IPs and LCs in 19 territories.²⁹⁴ The project's objective is to foster these communities' engagement and participation in the implementation of REDD+ policies and Forest Investment Program (FIP) activities at the local and national levels, and to enable them to more effectively benefit from these policies.²⁹⁵

4.4. THE ROLE AND CONTRIBUTION OF NON-STATE ACTORS IN ACHIEVING FOREST OBJECTIVES

Key messages

- Non-state actors including civil society organizations, social movements, and the private sector have an important role to play in forest governance. Stakeholder participation takes place at different levels: in legislative processes at the national level, at the local level through community management mechanisms, in policy design, implementation, and decision-making. Broadening the participation of marginalized and vulnerable groups ensures that their voices are included and incorporated into policies and laws.
- Congo Basin countries have developed laws and processes that allow for the participation of civil society in forestry decision-making. However, the implementation of these laws and processes at all decision-making levels presents significant challenges. Despite challenges and lack of resources, civil society organizations remain at the heart of positive developments in forestry actions and advocate for the protection and sustainable use of forests in Congo Basin countries.
- The countries of the Congo Basin are increasingly integrating gender into their economic policies, recognizing the importance of including women in decision-making spheres. DRC has recognized the role of women in forest management frameworks. Despite these advances, the implementation of gender-inclusive policies for forest governance at the local level remains limited due to traditional practices that exclude women from forest ownership and management.
- Private sector efforts are an important step in the fight against deforestation in the Congo Basin. Globally, the number of zero deforestation commitments by private actors has increased in recent years and several multinational companies have committed to deforestation-free supply chains in Central Africa. However, private sector activities are insufficient without a coherent framework of public policies or governance structures that reinforce private action.
- Private actors have increasingly embraced voluntary sustainability standards as part of sustainable forest management efforts in Central Africa. However, there is not consensus on the effectiveness of voluntary sustainability standards, neither in the Congo Basin nor globally. Despite the lack of solid evidence that voluntary sustainability standards reduce deforestation rates, the focus of these standards on transparency and efficiency can ensure greater capacity in supply chains and lower transaction costs.

With the ability to influence forest governance, non-state actors are key to protecting Congo Basin forests. Both civil society and the private sector have important roles to play:^{296,297}

- Civil society has an important role in decision-making regarding forest governance. Civil society actors can bring forward relevant information from the field affecting vulnerable people, particularly IPs, women and youth. Downstream, it facilitates community mobilization for the appropriation of decisions and the implementation of strategies, mechanisms, and decisions for sustainable forest management. The sector also plays an important monitoring, expertise-related, and communication role in forest-related decisions. All relevant stakeholders (e.g. forest communities, civil society, and the general public) should have the opportunity to participate in forest policy deliberations, which facilitates inclusive decisions that incorporate diverse perspectives and concerns.
- The private sector not only can help achieve forest goals, but it can also generate employment opportunities and income sources within agriculture and forestry sectors.²⁹⁸ Industrial agriculture and commodity production are not yet major drivers of deforestation in the Congo Basin (see Chapter 3) but could become so in response to increasing prices and international demand for agricultural commodities, which could outstrip growing domestic demand. In this context, private sector efforts to implement environmental protection policies and decouple deforestation and commodity production in supply chains are a relevant theme in the Congo Basin.

4.4.1. The crucial role of civil society in the development and implementation of forestry policies

From national level legislative processes to local level community engagement mechanisms, stakeholder participation in decision-making can take place at various levels. Including marginalized and vulnerable groups within decision-making processes ensures that rarely included voices are reflected in policies and laws. Effective participation strengthens stakeholders' ownership of laws, policies, and decisions related to forest conservation and management. In turn, this increased sense of ownership affects the perceived legitimacy of government actions. In general, Congo Basin countries have established laws and policies that ensure the participation of non-state actors, including requirements for free, prior, and informed consent, and the inclusion of IPs, women, and other vulnerable groups.

At the governmental level, Congo Basin countries have developed laws and processes that allow for the participation of civil society in forest decision making. However, significant challenges persist in ensuring these laws and processes are implemented at all levels of decision-making. Despite certain challenges and a lack of resources, civil society organizations remain at the heart of positive developments in forest actions and continue to advocate for the protection and sustainable use of forests across various Congo Basin countries.

In Cameroon, Ministerial Decision No. 1354/D/MINEF/CAB of November 26, 1999 mentioned the imperative participation of local populations in the forest classification process, and - in the absence of an organized and representative group of the local population - recommended the establishment of the Comité Paysans Forêt (CPF) as a representative committee for communities involved in classifying and monitoring permanent domain forests.²⁹⁹ In the non-forest domains, the State has established community forests to allow communities to directly manage their forests (Chapter 4.3). Various stakeholders are involved in revising regulatory texts at the national level, including LCs (through their representative committees), civil society organizations, and private sector actors.^{300,301} Environmental protection laws in Gabon recognize the key role and responsibility that citizens play in protecting the environment, and the important role of environmental protection associations in land use and forest-related decision-making processes.³⁰² However, the participation of vulnerable groups such as women and Indigenous communities is not explicitly mentioned in these environmental protection laws. Because of this, these groups may continue to be excluded from participation processes.^{303,304} In the DRC, the adoption by the Senate of the new Law on the Promotion and Protection of the Rights of Indigenous Pygmy Peoples in the DRC incorporates the notion of FPIC, an important step in the inclusion of communities and other stakeholders in the decision-making process on forests. This law has yet to be signed into law by the president of the DRC.^{305,306}

Through various forms of participation, civil society actors support forest monitoring activities and make recommendations for decision makers (Box 5). In the Republic of the Congo, for example, civil society and government worked closely together in developing a new forest code. This cohesion helped improve relations between stakeholders and ensure that key civil society priorities, such as strengthening community rights, were included in the law.³⁰⁷ In fact, two-thirds of the suggestions from civil society organizations were able to be incorporated into the new law.³⁰⁸ The negotiation process also improved the working relationship between civil society and government, strengthening civil society's position in defending the rights of forest peoples. The same forest code enshrines the principle of the participatory management of forest resources that involves local communities, Indigenous peoples, civil society participates in a roundtable involving diverse stakeholders related to community forest issues.³¹⁰ Civil society engagement has led to collaboration and coordination between government, local communities, civil society organizations and donor countries to maximize the potential of community forests.³¹¹ These examples demonstrate the importance of both supporting local level, community initiatives and

documenting their impact. Participatory processes that include civil society can help achieve further legal reforms, contribute to coordination and institutional capacity building, and set regional examples for collaboration between government institutions and civil society organizations.

Box 5: Examples of civil society participation movements contributing to forest goals

CONGO BASIN:

• Meeting in Kinshasa at the 8th meeting of the Steering Council of the CBFP in 2020, civil society representatives spoke out in favor of raising the ambition of nationally determined contributions (NDCs). They called for the strengthening of synergies between various sectors and the participation of all stakeholders at all stages of the process. Emphasis was placed on the need to make information available, raise awareness, and inform and build the capacity of stakeholders in the NDC review process, as well as to consider human rights, gender, and the needs of youth Indigenous peoples.³¹²

CAMEROON:

- The *Field Legality Advisory Group* advocates for improved lawfulness, transparency, capacity building, and organizational development in Congo Basin countries through policy, training, information sharing, webinars, reports, analysis, as well as project implementation within forestry, agriculture, and mining sectors. The organization provides independent monitoring of natural resources and works in partnership with international, regional, and national government and non-government organizations.³¹³
- The Standard Independent External Observation System (SNOIE) is a group of civil society organizations that conduct observation activities on natural resources, including forest resources. Its mission is to observe, verify and report on potentially illegal forest activities to influence practices via effective monitoring of regulatory compliance.³¹⁴
- The Center for Environment and Development focuses on conflict prevention, mining, land tenure, forests, Indigenous peoples, climate, capacity building, community rights, and economic alternatives. With training and coaching, the organization not only monitors illegal logging but supports communities that resist it. The Center also establishes frameworks for dialogue with governments and international cooperation or donor agencies to influence their positions in favor of greater forest protection, with a focus on forest law reform.³¹⁵ LandCam works with civil society organizations, the private sector, and local and national government to improve customary and formal land rights and natural resources. It also pilots innovations in land governance at the local level and contributes to the development of relevant policy reforms.³¹⁶

REPUBLIC OF CONGO:

- The Junior Legal Desk is an organization that provides local justice, actions geared towards natural resource governance, and monitoring of public development policies. Its objectives are to contribute to the implementation of laws and other legal texts on natural resources; to guarantee that the rights of local communities and IPs are respected through the governance mechanisms (related to forests, mines, energy and hydrocarbons); and to defend the rights of Indigenous peoples and local communities. The organization also ensures that stakeholders are involved in policy processes (e.g. VPA on FLEGT, REDD+, Extractive Industries Transparency Initiative, and other natural resource governance policies). Additionally, the group disseminates practical information, analysis sheets, and independent external monitoring of forests.³¹⁷
- In July 2022, a capacity building workshop on public policy monitoring and evaluation took place, organized by members of the Conseil de concertation des organisations non gouvernementales de développement (CCOD) and other networks. Sixty-five civil society organizations and 15 non-governmental organizations affiliated with the CCOD were trained to create an area of expertise of Congolese civil society organizations. Delegates from these organizations were trained on various modules, including the evaluation of public policies ; programs and development projects ; the reference frameworks for monitoring and evaluating public policies ; and programs and projects at the international, regional, and local levels.³¹⁸

DEMOCRATIC REPUBLIC OF THE CONGO:

- The Forest Governance Observatory is an independent observer that supports the government in monitoring forest exploitation activities. Its role is to give credibility to state-organized forest control measures by providing legal analysis, field missions, recommendations to the forest administration, publications on forest governance, and evaluation of forest governance.³¹⁹
- The community forest roundtable process is represented by the Renewed REDD+ Climate Working Group, a national network of 480 civil society organizations and 600 associated organizations. It ensures that data collected on the ground is taken into account in national discussions and serves as an intermediary for Indigenous peoples and local communities. The process ensures that the rights and interests of Indigenous peoples and local communities are respected in the REDD+ process.³²⁰

In recognizing the importance of including women in various decision-making arenas, Congo Basin countries are increasingly integrating gender into policymaking. Some countries, such as the DRC, have recognized the role of women in their forest management frameworks. Despite advances in the inclusion of gender within national laws and public policies, their local level implementation in legal forest frameworks remains limited. This challenge mainly arises from traditional practices that tend to exclude women from forest ownership and management.

Women play a crucial role in forest management. In addition to practicing traditional agroforestry, women collect fuelwood and non-timber forest products for purposes of food, livestock, health care, and income generation.³²¹ Some countries in the Congo Basin recognize women's crucial socio-economic and political participation within their national policies and laws – an achievement

that many developed countries haven't reached to the same degree. In Cameroon, a national gender policy integrates women into the country's economic development. The policy makes some reference to gender, forest management, and resource use. However, none of the strategies presented within the policy address women's equitable participation in the development and implementation of forestry policies.³²² In the Republic of the Congo, the country's constitution mentions gender parity and ensures the promotion and representation of women in all political, elected, and administrative functions.³²³ The Ministry for the Promotion of Women and the Integration of Women in Development also promotes the integration of women in development issues. Gender issues are not yet mainstream within the country's national forestry policy and there has been no tangible impact on women's representation and participation in forest policy development and implementation to date.³²⁴ In the DRC, Law No.15/013 of August 1, 2015 mentions the need for women's representation in local management committees, councils of elders, and local monitoring committees for each community forest concession.³²⁵ Similarly, the ministerial decree regarding approval procedures for REDD+ projects implicitly includes women as stakeholders.³²⁶

Traditional, conventional practices significantly influence land use decisions. Traditionally established leaders and officials have the power and legitimacy to influence community resource management.³²⁷ In Cameroon, land ownership at the local level is governed by customary laws, which favor men in land ownership. There is no local level legal consideration that facilitates women's access to forest ownership.³²⁸ In the DRC, widows and daughters can inherit land and forest property equally, but women in common law relationships cannot access the same right. In practice, women's representation in local management committees remains below target. Further, the allocation of land and property rights – and the resolution of related disputes – at the local level are managed through customary law.³²⁹ In the Republic of the Congo, access to land and resources is managed by customary law. Few laws protect against the restriction of women's rights and seizure of property, while equitable inheritance is not recognized for widows, daughters, and women in common-law unions. By default, the husband is responsible for managing household property, which includes forest areas.³³⁰ In Gabon, customary law favoring men applies to the management and ownership of forest land, to which women have no access.³³¹

4.4.2. The role of the private sector in the fight against deforestation and forest degradation

Deforestation is fueled, in part, by the growing demand for raw materials. While not the dominant driver of deforestation in the Congo Basin today, this may change in the coming years. Private sector efforts to reduce deforestation vary in scale, methodology, and type, ranging from corporate deforestation commitments, company codes of conduct, or sector-specific verification standards.

Between 2013 and 2019, more than 31 percent of global agricultural products linked to deforestation were exported from 23 countries.³³² Depending on the product and country of origin at hand, the share of exported products linked to illegal agricultural conversion ranges from one-fifth to nearly all in some cases.³³³ These trends do not necessarily reflect the dynamics of the Congo Basin, where commercial agriculture is currently a less important driver of deforestation than subsistence agriculture (Chapter 3). This may change in forthcoming years as international demand and prices for agricultural products increase and outpace domestic demand. The DRC, Gabon, the Republic of the Congo, and Cameroon face serious risks of agricultural expansion into forested areas, in part because of their high percentage of forest cover and the relatively low availability of cultivable land outside of such areas.³³⁴ Within this potentially shifting context, private sector efforts to decouple deforestation and commodity production in supply chains and efforts to achieve "zero deforestation" supply chains are a relevant discussion in the Congo Basin.

The number of zero deforestation commitments (ZDCs) by private actors has increased in recent years, but the diversity of these commitments and their lack of transparency can make their efficacy difficult to assess. The ZDCs of the palm oil sector in Cameroon are a positive step for private sector actors, but challenges remain. Practices on the ground, particularly in Gabon, reveal the shortcomings of companies' promises to reduce agricultural expansion into forest areas. These ZDCs will certainly be insufficient without a coherent framework of public and private policies.

ZDCs refer to a broad set of commitments to eliminate deforestation throughout corporate supply chains.³³⁵ Globally, the number of ZDC from private actors has increased in recent years³³⁶ and several multinational companies have committed to deforestation-free supply chains in Central Africa.³³⁷ These commitments are varied and often do not have a consistent scope or definition across companies, which can impact their assessment.³³⁸ Many companies do not specify whether their ZDC refers to gross deforestation, net deforestation, or illegal deforestation within supply chains, which creates ambiguity for their assessment.³³⁹ Other discrepancies between the ZDCs exist in the definition of forest and the start and end dates of implementation, resulting in a blurring of the ZDC's duration.³⁴⁰ These commitments can cover multiple jurisdictions, from a

company's entire supply chain to a specific region or product.³⁴¹ Such qualities can make it difficult to generalize about the effectiveness of ZDCs or to compare them to one another.³⁴² However, the growing adoption of ZDCs in the Congo Basin makes their analysis important, despite this broad scope and the diversity of their definitions. Examples of private sector initiatives to reduce deforestation, including company ZDCs, are presented in Table 8.

Table 8. Key initiatives used to promote zero deforestation in the supply chain. Source: Lambin et al. (2018)³⁴³

Initiative		Examples	Approach	
Collective aspirations		Consumer Goods Forum, TFA2020, and the 2014 New York Declaration for Forests	General and collective objective of a stakeholder group	
Company commitments		Wilmar, GAR, APP, Unilever, Cargill and McDonald's commitments to zero deforestation	Establish and communicate a company's commitment to reducing deforestation	
Codes of conduct		Unilever's approved supplier lists and responsible sourcing policy	Define internal policies for production and procurement practices	
Sector Incentives standards		Certification programs for sustainable palm oil, soybean and sugarcane production (developed by roundtables or certification bodies – e.g. Sustainable Agriculture Network)	Standardize sustainable production practices among participants; allow for market access or price premiums	
	Sanctions	Moratoriums on soybeans and cattle in Brazil	Identify practices to be discouraged through market penalties by other supply chain actors	

Private sector efforts are an important step in the fight against deforestation in the Congo Basin, but these policies will certainly be insufficient without a coherent framework of public and private policies^{344,345,346} or governance structures that strengthen the effectiveness of private action.³⁴⁷ Private sector efforts suffer from leakage, lack of transparency and traceability, and lack of access to smallholders (the most dominant type of producer in the Congo Basin).^{348,349} The ZDCs in Cameroon's palm oil sector and mandatory sustainability certification for Gabon's timber producers highlight the need for good governance alongside private sector efforts to achieve forest goals in the Congo Basin.

Cameroon is a regional leader in the development of palm oil plantations.³⁵⁰ Several of the country's large industrial producers (SOCAPALM, SAFACAM and SPFS) have adopted ZDCs in recent years.³⁵¹ Unlike the palm oil sector in Southeast Asia, the Cameroonian market remains disorganized and non-industrial, and the majority of plantations are owned by small producers.³⁵² Cameroon has set ambitious palm oil production targets, which require an increase in national agricultural infrastructure³⁵³ and risk massive deforestation, with more than two-thirds of Cameroon's arable land currently forested.³⁵⁴ While the country's large palm oil producers have implemented ZDCs, the effects are somewhat mitigated by the lack of engagement of the large number of smallholder and autonomous (or semi-autonomous) producers. In addition, the ZDCs established by producers are often vague about their intentions and it can be extremely difficult to assess compliance.³⁵⁵ The actual adherence of large producers to their ZDCs is therefore not very transparent. Nevertheless, the establishment of ZDCs by all major palm oil producers in Cameroon indicates a widespread movement towards sustainable forest management. Government oversight and strong collaboration between the public and private sectors will help address implementation issues.³⁵⁶ The implementation of such commitments by artisanal palm oil producers remains a key element in protecting Cameroon's forests.

In Gabon, multinational agribusinesses have established ZDCs, but practices on the ground reveal the inadequacies of the companies' promises to reduce agricultural expansion into forest areas. A field survey was conducted by civil society organizations in 2019 in 18 villages in and around four concession areas of the agribusiness company Olam in Ngounié province. The results of this survey reveal that Olam's "zero deforestation" policy is in practice only a "net zero deforestation" policy, consisting of offsetting any deforestation by planting new trees and ensuring that the total area of forest remains unchanged in a given geographical area. Such practices can mean the continued expansion of commodity production into primary forests and undermine the credibility of the company's zero deforestation commitments. In addition, Olam's presence has worsened the living conditions of local communities through increased surveillance, denial of access to certain areas of the forest, pollution, and destruction of watersheds and livelihoods.^{357,358}

Within or in addition to ZDCs, private actors have increasingly embraced Voluntary Sustainability Standards (VSS) as part of sustainable forest management efforts in Central Africa.³⁵⁹ The example of FSC certification, however, demonstrates the lack of consensus on the effectiveness of voluntary sustainability standards, both in the Congo Basin and globally. Despite the lack of solid evidence of the significant impact of VSS certification on deforestation rates, there are several other advantages to this approach. Gabon's attempts to

combat deforestation represent an example of how VSS certification can have an impact on public policy and national economies.

Examples of efforts to combat deforestation include industry verification standards, such as VSS certifications for palm oil, wood, and other commodities.³⁶⁰ Production and sourcing codes of conduct include internal best practices, such as Unilever's responsible sourcing policy. These corporate activities create a diverse and intersecting landscape of sustainability commitments, both globally and within the Congo Basin. For example, while ZDCs and VSS are distinct forms of action against deforestation, companies may use the latter initiative to achieve the former. An example of this is Cargill, which uses VSS certifications as part of its ZDC.³⁶¹

VSS certifications aim to mitigate environmental, social, and economic damage from commodity production by requiring producers to improve production methods throughout their value chains according to standardized practices.³⁶² In the Congo Basin – where the production of rubber, palm oil, cocoa, and other commodities threatens forests – VSS provide a way for producers to engage in sustainable commodity production and signal these practices to consumers, whose demands for sustainable supply chains are increasing. Some of the most relevant certifications in the Congo Basin include those from the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification (PEFC), the Roundtable on Sustainable Palm Oil (RSPO), and the Rainforest Alliance (Table 9).³⁶³

Voluntary sustainability standard	Basic products	Coverage in the Congo Basin (in 2021)
FSC	Wood	- 3,653,948 ha of certified forest (Cameroon, Congo, Gabon) - Gabon: Policy to have all timber producers in the country FSC certified by 2022.
PEFC	Wood; rubber	- 596,822 ha of certified forest - 9,543,857 ha with legal certificate (Cameroon, Congo, Gabon, the DRC)
RSPO	Palm oil	- Gabon: 1 certified palm oil plantation (112,455 ha) - Cameroon: 2 plantations under certification (~70,000 and ~9,000 ha) - The DRC: 1 plantation undergoing certification (107,301 ha)
Rainforest Alliance	Cocoa; coffee	- 11 cocoa producers are UTZ-Rainforest Alliance certified.

Table 9. Non-exhaustive list of key voluntary sustainability standards in the Congo Basin.Source: Lescuyer et al. (2021)³⁶⁴

FSC certification covers about 10 percent of the forest production area in the Congo Basin³⁶⁵ and illustrates the mixed results surrounding the effectiveness of voluntary sustainability certifications. While some studies indicate that these certifications reduce deforestation rates, others indicate mixed or non-impact (Table 10). However, research on the effectiveness of VSS in Africa in general is particularly limited, with most studies focusing on the impact of certification in Europe and North America.³⁶⁶

Table 10: Selected literature evaluating the effectiveness of FSC certification on deforestation and forest degradation.

Literature	Region evaluated	Positive, mixed, or no impact* of FSC certification
Panlasigui et al. 2018. Impacts of certification, uncertified concessions and protected areas on forest loss in Cameroon, 2000 to 2013. ³⁶⁷	Cameroon	No impact suggested
Rico-Straffon et al. 2018. Forest concessions, certification, and protected areas in the Peruvian Amazon: Forestry impacts of combinations of development rights and land use restrictions. ³⁶⁸	Peruvian Amazon	No impact suggested
Blackman et al. 2018. Does eco-certification stem tropical deforestation? Forest Stewardship Council certification in Mexico. ³⁶⁹	Mexico	No impact suggested
Tritsch et al. 2020. Do forest management plans and FSC certification prevent deforestation in the Congo Basin? ³⁷⁰	Congo Basin	No impact suggested
Heilmayr, R. and Lambin, E.F., 2016. Impacts of non-state, market-based governance on Chilean forests. ³⁷¹	Chile	Suggested positive impact
Miteva et al. 2015. Social and environmental impacts of forest management certification in Indonesia. ³⁷²	Indonesia	Suggested positive impact
Rana, P. and Sills, E.O., 2018. Does certification change the trajectory of tree cover in tropical working forests? An application of the synthetic control method of impact assessment. ³⁷³	Gabon, Indonesia, and Brazil	Suggested mixed impact

Wolff, S. and Schweinle, J., 2022. Efficiency and economic viability of forest certification: A Systematic Review.³⁷⁴

Literature review; studies cover several Suggests **mixed impacts** regions

Positive impact: FSC certification was found to have reduced deforestation rates in the region assessed. No impact: No significant change in deforestation due to FSC certification found (as in Blackman et al.), extremely small effects of FSC certification on deforestation found (<0.01%) (as in Rico et al.), or studies identifying some measured change in deforestation rates but concluding that these changes are most likely attributable to factors other than FSC certification (as in Tritsch et al. & Panlasigui et al.) Mixed impacts: Indicates a literature review examining several studies with varying results on the impact of FSC certification, including positive and no impact results (in the case of Wolff & Schweinle) or indicates results where FSC appears to reduce deforestation but where such a result is set in the context of previous years in which certification increased deforestation (in the case of Rana & Sills). Additionally, research from Rana & Sills showed that FSC certification had no impact in Gabon in particular, while results were slightly more promising in Indonesia and Brazil – adding to the mixed nature of the results and relevance for the Congo Basin.

Despite the lack of solid evidence of the significant impact of VSS certifications on deforestation rates, there are several other benefits of such certification. According to some stakeholders, the standards' focus on transparency and efficiency ensures greater capacity in supply chains and reduces financial risk by lowering transaction costs along the supply chain.³⁷⁵ In addition, voluntary standards can create greater equity in market access, which in turn can enable IPs to retain a greater share of their country's economy.³⁷⁶ Advances in technology also have the potential to improve VSS in the future. For example, while compliance forest monitoring can present major issues for assessing levels of deforestation, *Global Land Analysis* and *Discovery Alerts* in the Congo Basin have made compliance monitoring easier and more accurate, providing weekly high-resolution images of the area's forests.³⁷⁷ Advances in monitoring and data processing have made it much easier to ensure that palm oil producers in Cameroon are meeting their sustainability commitments.³⁷⁸ These technological advances offer hope that VSS certification monitoring – a key aspect to their success – will improve in the near future.

In an attempt to combat deforestation, in 2018 Gabon mandated that all timber companies operating in the country be FSC certified by 2022.^{379,380} While this mandate may improve the state of the country's forests, there is still significant debate about whether this policy will have a greater positive impact compared to traditional forest management techniques.³⁸¹ Additionally, the administrative hurdles associated with obtaining FSC certification may preclude many companies from certification, which would be felt by local people who depend on the timber trade for their economic opportunities.³⁸² However, Gabon could implement several fiscal and non-fiscal policies that would allow "virtuous" companies to obtain their licenses, which would ensure responsible logging and not negatively impact Indigenous peoples.³⁸³ Another option would be to avoid FSC

certification requirements altogether and implement a legality verification process that allows Gabon to set and maintain its own standards and remove many of the barriers preventing companies from obtaining FSC certification. Overall, Gabon's FSC mandate is an ambitious step toward deforestation-free supply chains. It shows one way that governments in the Congo Basin can engage with private sector efforts toward sustainable forest management. It also highlights the need for strong "hybrid" governance, where public governance supports private sector efforts – and vice versa.³⁸⁴

4.5. ALIGN FUNDING WITH FOREST CONSERVATION AND SUSTAINABLE MANAGEMENT OBJECTIVES

Key messages

- International funding in the region has increased in recent years, notably through the Central African Forest Initiative (CAFI) and renewed commitments at COP26.
- The joint declaration for the Congo Basin calls for the distribution of USD 1.5 billion in funding to the six countries of the region between 2021 and 2025, and USD 465 million in funding is provided in the letters of intent signed between CAFI and DRC, Republic of the Congo, and Gabon. However, these commitments are insufficient to meet the estimated needs to ensure forest protection in the Congo Basin.
- The land sector needs of Cameroon and DRC, as stated in their NDCs, amount to USD 29.8 billion over the period of 2020-30. International financial commitments are rarely accompanied by quantifiable and transparent targets. The Congo Basin receives less funding for climate action and environmental protection than other tropical forest regions.
- Funding for Indigenous peoples and local communities is inadequate, and these actors are not sufficiently included in decision-making processes. Funding to support other vulnerable groups, such as rural women and small farmers, is also insufficient.
- At the national level, governments provide budget lines for forest conservation and protected area funding, but the actions and financial objectives of different ministries are not always aligned. Governments should use improved fiscal processes and plans to redirect existing national funding streams to forest protection activities (or to activities that have a positive impact on forest protection).
- Some observers have argued that REDD+ approaches and the voluntary carbon market could channel significant amounts of funding to Congo Basin forests, but available funding falls far short of what is needed. In 2021, Gabon became the first, and only, country in Africa to receive performance-based payments through REDD+, with USD 17 million of the USD 150 million it received approved through CAFI. This is a positive development, but the level of funding through REDD+ remains low. The integrity of the voluntary carbon market is also criticized and the potential funding that can be mobilized is far from what is needed.

The attention paid by bilateral and multilateral financial partners – and associated international funding – to the Congo Basin has increased in recent years, particularly in the context of COP26. Despite some funding increases to the Congo Basin, existing financial flows and new commitments remain largely insufficient to meet the financial needs for forest protection estimated within the Nationally Determined Contributions (NDCs) of Congo Basin countries. Additionally, the Congo Basin receives less funding for climate action and environmental protection than other tropical forest regions.

In additional to commitments made on other platforms, several commitments were made at COP26 to support Congo Basin forests (Figure 4 and Box 6), including a joint declaration to distribute USD 1.5 billion in funding to the six Congo Basin countries between 2021 and 2025. The total financial commitments from governments, financial institutions, corporations, and foundations exceed USD 36 billion over the 2021-25 period. It is not always clear whether these commitments are additional to previous commitments, and few financial commitments – globally or in the Congo Basin region – are accompanied by quantifiable and transparent targets.³⁸⁵ Within the framework of the Central African Forest Initiative (CAFI), a number of countries have committed to actions related to different aspects of forest protection. To date, letters of intent have been signed with the DRC, the Republic of the Congo, and Gabon for a total of USD 465 million.³⁸⁶

Box 6: Financial commitments for the Congo Basin

Commitments made at COP26:

- The Joint Declaration for the Congo Basin calls for the distribution of **USD 1.5 billion in** funding to the six countries in the Congo Basin **between 2021 and 2025.** This amount is intended to support efforts to protect and preserve forests, peatlands, and other global carbon stocks in the region. There is no publicly available information on the monitoring mechanism for this commitment or how progress will be reported.
- An additional USD **1.5 billion** in funding has been allocated to protect the forests of the Congo Basin under the Glasgow Declaration on Forests and Land Use.
- Other financial commitments have been made at the global level.³⁸⁷

Other commitments:

- CAFI committed to pay Gabon **USD 150 million** to protect its forests. An initial payment of USD 17 million is underway. It will help Gabon develop its sustainable forest model.³⁸⁸
- At the end of 2019, the Okapi Fund^{389,390} committed two allocations from the Kreditanstalt für Wiederaufbau (KfW) and the Global Environment Facility, via the World Bank, of **EUR 14 million** and **USD 7.4 million**. The first interventions are expected to take place in 2022 and will support two national parks in the DRC.
- In July 2022, the Bezos Earth Fund committed USD 110 million to conservation projects in the Congo Basin.³⁹¹

Two-thirds of Cameroon's greenhouse gas reduction targets are conditional, as are 90 percent of the DRC's targets, 33 percent of the Republic of the Congo's targets, and all of Gabon's net absorption targets (Box 7). The combined land use (i.e., agriculture and forest management) needs of Cameroon and the DRC alone (both of which provide detailed estimates in their NDCs) amount to USD 29.8 billion over the period 2020-30. Stakeholders have conveyed a lack of capacity and difficulties attracting international funding that is commensurate with forest conservation challenges in the Congo Basin. Supported by scientists, a group of ministers responsible for forest policy recently called for the creation of a Congo Basin Climate Science Initiative. The group identified a need for USD 100 million to fund a 10-year research program, and an additional USD 50 million to fund the training of local researchers.³⁹² COMIFAC recently launched an appeal for USD 200 million to carry out a five-year action plan, which includes protection of protected areas and funding for numerous local projects.³⁹³

Box 7: Funding Requirements for Implementing Nationally Determined Contributions (NDCs)

CAMEROON:³⁹⁴

In its NDC, Cameroon commits to reducing the its development carbon footprint by 35 percent by 2030, 23 percent of which is conditional on the provision of climate finance.

- Total need: estimated at **USD 57.6 billion**, of which USD 25.8 billion to be spent on mitigation actions and USD 31.9 billion on adaptation actions.
- Land Sector Needs:
 - **USD 3 billion** is needed for mitigation actions in the forestry sector (reforestation and rehabilitation of degraded ecosystems, assisted forest regeneration, and securing and managing protected areas) and **USD 1.05 billion** for forest adaptation, with the majority of adaptation needs identified for health, gender, infrastructure and sanitation.
 - The needs for mitigation activities in the agricultural sector are estimated at **USD 7.5 billion** (of which about 12 percent for sustainable agricultural land management)

GABON:395

Through its NDC, Gabon commits to remaining carbon neutral until 2050. The country also commits to maintaining a net carbon absorption above 100 million metric tons per year in 2025, 2030 and beyond, subject to access to various sources of financing, such as:

- International climate finance in the form of performance-based payments for existing carbon stocks
- International carbon finance in voluntary markets
- International markets for its wood and agricultural products
- Technical and technological support to continue to improve its inventory systems and capabilities

THE DRC:³⁹⁶

The DRC's NDC commits to a 21 percent reduction of greenhouse gas emissions compared to the "business as usual" scenario (19 percent under the conditional scenario and 2 percent under the unconditional scenario).

- Total requirement: The NDC implementation budget is estimated at USD 48.7 billion, including USD 25.6 billion for the implementation of 30 mitigation actions and USD 23.1 billion for the implementation of 52 adaptation priorities.
- Need in the land sector:
 - Forestry and forest-related activities are the first major mitigation lever, with an estimated total cost of **USD 10.0 billion**. Activities include reducing logging volumes per hectare to sustainable levels with limited emissions, managing illegal logging, combating degradation and deforestation related to people's activities, using bushfire control techniques, reforestation, and afforestation.
 - Forest-based agriculture is another mitigation lever requiring **USD 7.8 billion**, including a program to improve productivity in 50 percent of food farms and to reduce emissions from commercial agriculture (including the relocation of new plantations to savannahs).

THE REPUBLIC OF THE CONGO:³⁹⁷

The Republic of the Congo commits in its NDC to a reduction of greenhouse gas emissions compared to the "business as usual" scenario of 32.19 percent under the conditional scenario and 21.46 percent under the unconditional scenario.

Total Need: Total investments amount to **USD 4.4 billion** for mitigation options, of which USD 4.3 billion (98 percent) is for conditional activities and **USD 3.8 billion** for adaptation, of which 73 percent is for conditional activities. The transport and energy sectors see the most funding allocated, but the NDC highlights funding needed for mitigation activities in the forest sector, particularly for assisted forest regeneration and reforestation. Forests are not explicitly mentioned in the NDC's adaptation component, but food security constitutes 33 percent of the total amount.

Despite some increase in funding in the Congo Basin, existing financial flows and new commitments remain largely insufficient in light of the estimated finances needed for forest protection in the Congo Basin. Between 2008 and 2017, bilateral and multilateral funding for nature conservation and forest protection in Central Africa neared USD 2 billion.³⁹⁸ CAFI approved 36 programs between 2015 and 2021 for a total of USD 358 million,³⁹⁹ of which USD 204 million was transferred to the organizations in charge of implementing these projects. However, these amounts fall far short of the funding needs identified by countries in the region.

Central African forests receive a relatively small share of international funding for forest conservation. Between 2008 and 2017, funding aimed at Central African forests accounted for only 11.5 percent of total available funds, while the Amazon forest and Southeast Asian forests received 34 percent and 54.5 percent of international funding, respectively (Figure 19).⁴⁰⁰ Although considered more effective due to less rigid rules and more tailored support mechanisms, levels of bilateral funding are relatively low.⁴⁰¹ Between 2008 and 2017, Central Africa received only 7.6

percent of the USD 11.7 billion disbursed by bilateral donors to support tropical ecosystems. This underwhelming funding can be explained in several ways: (i) the weak diplomatic proximity of Central African countries to some of the major state donors, (ii) the limited borrowing capacity of countries in the region, and (iii) the low contribution of private investors who perceive investments in the region as risky and with low returns.⁴⁰² Fiduciary issues may also hinder the release of payments to Congo Basin countries.⁴⁰³ As a result, funding for Central African forests comes primarily from institutional actors (primarily the European Union) and a handful of bilateral donors such as Germany, the United States, and France. However, funding for the Congo Basin by these countries remains relatively limited compared to their funds allocated to other major tropical basins. Civil society stakeholders have indicated that a lack international funds for forest conservation raises the risk that Congo Basin governments will seek investments in other areas such as logging and extractive industries.

Figure 19. Share of international funding for forests in the three major tropical forest regions between 2008 and 2017



Funding for Indigenous peoples and local communities remains largely inadequate. Although they play a crucial role in climate change mitigation, these actors are not sufficiently included in relevant decision-making processes related to forest conservation.

Despite the crucial role of Indigenous peoples and local communities in climate change mitigation, biodiversity conservation, and more generally sustainable development,⁴⁰⁴ their

inclusion in forest conservation policies remains very limited. Indigenous and civil society organizations in the DRC are participating in REDD+ activities and mobilizing their own resources. Two of the largest organizations, the REDD+ Climate Working Group (RCWG) and the Network of Indigenous and Local Peoples for the Sustainable Management of Forest Ecosystems (REPALEF-DRC), have each received USD 2 million under the CAFI initiative to build institutional and organizational capacity for their work.⁴⁰⁵ On top of that funding, REPALEF-DRC received USD 2 million from the World Bank through VERITAS.⁴⁰⁶ Additionally, the recently created Community Land Rights and Conservation Initiative (CLARIFI) will provide USD 10 million to initiatives in Gabon, the Republic of the Congo and the DRC as part of a planned pilot project.⁴⁰⁷ Finally, in the DRC, the Tenure Facility is currently allocating USD 2.08 million to local forest communities to secure their communal rights and build local level capacity to ensure the long-term sustainable management of community-managed forests.⁴⁰⁸ While positive, these funding developments remain marginal. To ensure that funding flows directly to forest populations - including to more vulnerable groups such as women, small-scale farmers, and youth - flexible and effective channels of access must be developed. Further, evaluations must be carried out to evaluate and ensure the concrete, real-world impacts of funding and funded projects.

At the national level, governments provide budget lines for forest and protected area conservation, but alignment of financial objectives and actions across different ministries is sometimes lacking. Improving fiscal processes and implementing plans to redirect existing national funding streams to forest protection activities (or to activities that have a positive forest protection impact) are other tools that states can use.

The successful implementation of REDD+ actions and the financing of forest protection relies, in part, on the consistency of financial objectives across different ministries. However, this cohesion of financial objectives is often lacking. For example, Cameroon's REDD+ financing has suffered from a lack of alignment among the various relevant ministries (Chapter 4.1). Tax revenues from several forestry and other activities may be used to support forest conservation activities or forest-dependent peoples.⁴⁰⁹ For example, Cameroon's NDC includes measures to retrocede a portion of tax revenues to communities, create jobs, and establish communal and community forests.⁴¹⁰ Gabon is considering introducing a bonus-malus system for different levels of timber certification and has introduced a degressive tax treatment of concessions by certification level.^{411,412} The Republic of the Congo's forest code proposes some strategies to raise funds for forestry activity at scale, including taxing wood residues and the government receiving a share of timber produced from logging companies.⁴¹³ However, legislation to implement such policies has yet to be drafted. Finally, tax breaks can reduce the tax burden by several million dollars on companies,⁴¹⁴ but a lack of transparency regarding company activities hinders potential action. Additionally, tax collection remains inefficient in some countries in the region.⁴¹⁵

Private actors can invest in the Congo Basin through carbon markets – particularly the voluntary carbon market – which have the potential to channel significant amounts of funding to Congo Basin forests. However, the integrity of carbon market mechanisms is criticized and their potential funding is still far from the Congo Basin's true economic needs.

The voluntary carbon market has grown significantly in recent years, with more than 354 CO eqMt₂ traded in 2021 – nearly double the amount traded in 2020.⁴¹⁶ This growth is mainly due to the increasing number of companies financing greenhouse gas reduction projects to "offset" their emissions and meet carbon neutrality commitments. Two types of projects can potentially contribute to forest conservation: (1) carbon credits related to forestry and land use (e.g., regenerative agriculture, afforestation/reforestation, improved forest management, etc.); and (2) projects that provide local communities with more energy-efficient stoves to reduce their consumption of fuelwood. Several of these projects (known as "carbon projects") have been and continue to be implemented in the Congo Basin region. VERRA, the market leader in carbon project certification, is currently involved in 12 projects related to land use and forest resources in the Republic of the Congo, the DRC, and Cameroon (Table 11). According to VERRA, these projects represent an emission reduction potential of 230 million tons of COe₂ for the period 2018-53. ⁴¹⁷

As of October 2022, Gabon had verified 90 million metric tons of CO₂ of absorbed carbon. The credits are certified to meet the requirements of the Warsaw Framework for REDD+ by experts accredited by the UNFCCC. The credits have not been approved by an independent carbon crediting program. If approved, the case of Gabon would be the largest ever issuance of carbon credits.

As developers of projects for the protection and sustainable management of forests, private actors can integrate the REDD+ process, like through generating carbon credits.⁴¹⁸ Most REDD+ activities in the Congo Basin region take place in the DRC through the national REDD+ fund (FONAREDD), under the umbrella of the Ministry of Finance.⁴¹⁹ In 2021, the Wildlife Works project in Mai Ndombe Province had mobilized funding of up to USD 55 million for emissions reductions of 11 million metric tons of CO2e₂.⁴²⁰ However, an evaluation of the Mai Ndombe project raised questions about the process of community inclusion and whether positive impacts were truly felt.⁴²¹ Several barriers hinder the effective launch of REDD+ projects in the Congo Basin, including a lack of funding for technology transfer and capacity building projects. In 2021, Gabon became the first and only country in Africa to receive results-based payments, with USD 17 million granted through CAFI, out of the USD 150 million approved.⁴²² While this is a positive step forward, the level of funding through REDD+ remains low.

Although they represent an important financial windfall for forest conservation, carbon markets are subject to numerous criticisms. Critiques of carbon markets are diverse, and can surround the credibility of carbon reductions and removals; the carbon neutrality claims of the companies that

purchase them; and the lack of safeguards to ensure that carbon projects meet human rights and environmental integrity standards. The potential financing that could be mobilized through carbon markets falls far short of what is needed in the Congo Basin, suggesting that these mechanisms could – at best – serve as a complement to the deep policy measures needed to ensure the sustainable preservation of the Congo Basin forests.

NAME	TYPE OF PROJECT	STATUS	COUNTRY	ESTIMATED ANNUAL EMISSION REDUCTIONS (tCO ₂ e)	BEGINNING OF THE CREDIT ISSUANCE PERIOD	END OF CREDIT ISSUANCE PERIOD
OKA 2 Project	Land use	Under development	Republic of the Congo	19,979	2020	2053
Improved forest management through logged-to-protected forests and reduced impact logging in Ufa Ngombé	Land use	Under development	Republic of the Congo	413,560	2015	2024
Agroforestry plantation Bateke Plateaus	Land use	Registration request sent	Republic of the Congo	36,102	2018	2051
North Pikounda REDD+	Land use	Registered	Republic of the Congo	231,110	2012	2041
Kokolopori Bonobo Peace Forest Grouped REDD Project	Land use	Registered	Republic of the Congo, DRC	1,047,213	2021	2031
Eastern DRC Cookstove Project – Tanganyika	Improved stoves	In the process of validation	Republic of the Congo, DRC	367,467	2022	2029
UpEnergy-Social and Climate Impact Programme- DRC-1	Improved stoves	Under development	Republic of the Congo, DRC	2 478 882	2022	2029
Eastern DRC Cookstove Project – South Kivu	Improved stoves	Registration request sent	Republic of the Congo, DRC	419 733	2020	2027
The Mai Ndombe REDD+ Project	Land use	Registered	Republic of the Congo, DRC	5 671 613	2011	2041
Isangi REDD+ Project	Land use	Registered	Republic of the Congo, DRC	324 534	2009	2039
Mbakaou Carriere Small Hydro Power Plant	Improved stoves	In the process of validation	Cameroon	13 349	2022	2029
Forest Conservation in Boumba-et-Ngoko	Land use	Under development	Cameroon	191 321	2018	2037

Table 11. Carbon projects certified or being certified by VERRA in the Congo Basin.⁴²³
5. Conclusions

At COP26 held in November 2021 in Glasgow, governments and international financial partners renewed their commitments to protect forests, particularly in the Congo Basin. In order to monitor these various commitments, the *Forest Declaration Assessment* has established a framework for assessing the achievement of forest goals. This framework makes it possible to monitor public and private policies in the areas of forest governance, sustainable production and development, and the financing required to achieve forest goals.

In 2022, the *Forest Declaration Assessment* partners implemented this assessment framework in the Congo Basin, the first application at the regional level. This study provides an overview of current actions in Cameroon, Gabon, the DRC and the Republic of the Congo. It was conducted through a collaborative process with civil society actors.

The results of this work show that the countries of the Congo Basin are making continuous efforts to reduce deforestation and allow for the sustainable use of forest resources. Congo Basin countries have legal frameworks for forest management and protection and are implementing land-use laws and plans to regulate land use and limit forest loss. Significant progress has been made to strengthen land tenure security, recognize community rights, and establish mechanisms for civil society participation.

Despite the many advances observed in the region, the implementation of these legal and institutional frameworks remains a major challenge, and data from 2021 show an increasing trend in deforestation compared to previous years in the Congo Basin. Economic development plans and forest protection strategies are still incongruent, and much work remains to be done to improve forest governance and consider the rights of Indigenous peoples and local communities. A lack of resources prevents civil society organizations from fulfilling their mandate and international funding remains far below what is needed.

This first regional report of the *Forest Declaration Assessment is* intended to complement the many ongoing efforts and initiatives in the Congo Basin. By taking stock of existing and developing public and private policies on a wide range of issues related to forest protection, restoration, and sustainable use, we hope that the report can serve as a reference for assessing future progress and implementation of the various identified actions. We welcome comments and feedback from all stakeholders on this work in progress.

Glossary

The definitions presented below are, for the most part, taken from the glossary of the previous assessment report for the New York Declaration on Forests (<u>NYDF 2019</u>) and from glossaries of various Intergovernmental Panel on Climate Change (IPCC) reports 110ncluding :

- The 2018 special report on the consequences of 1.5°C global warming (IPCC 2018)
- The 2019 Special Report on Climate Change and Land (IPCC 2019)
- The 5th assessment report published in 2014 (<u>IPCC 2014)</u>

When a definition is based on a source other than these, the source is mentioned.

Adaptation (to climate change): for human systems, the process of adjusting to the current or expected climate and its consequences, so as to mitigate the adverse effects and exploit the beneficial effects. For natural systems, an approach to adjust to the current climate as well as its consequences; human intervention can facilitate adaptation to the expected climate and its consequences. (IPCC, 2018)

Afforestation: planting new forests on land that historically had no forests. (IPCC, 2018)

Shifting cultivation: a farming system in which relatively short periods of land cultivation are followed by longer periods of fallow land. (FAO, 1984)

Climate change mitigation: human intervention to reduce sources or enhance sinks of greenhouse gases. (IPCC, 2014)

Fuelwood: detrital biomass, which includes a wide variety of materials, including stumps, dead branches, fallen whole trees, coarse roots, and wood chips resulting from the fragmentation of trees and logs. Firewood also includes residual wood generated from harvesting operations. These wood products can be used for cooking, heating, or generating electrical power, normally through combustion processes. (Brown et. Al., 2019; FAO, 2022)

Anthropogenic change: produced by or resulting from human activities. (IPCC, 2018)

Forest cover: as defined for Global Forest Watch data, all vegetation five meters or taller with canopy cover greater than 25 percent (<u>Hansen et al., 2013</u>). Tree cover indicates the biophysical presence of trees but may not meet many definitions of "forest." (NYDF, 2019)

Slash-and-burn: An agricultural system in which fields are cleared by burning and are cultivated discontinuously (which implies fallow periods that are always, on average, longer than cultivation periods). (FAO, 1957)

Deforestation: conversion of a forest to a non-forest area. (IPCC, 2018)

Deforestation: The *Forest Declaration Assessment* is based on the World Resources Institute (WRI) definition, where deforestation is defined as an event of tree cover loss that is either permanent in nature, such as when forest is converted to cropland or cleared for development, or when it occurs within the boundaries of primary tropical rainforest. There are several differences between the WRI and FAO methodologies. The WRI approach uses data from Hansen et al. (2013), which estimates forest cover loss at a 30x30 m resolution. To determine whether a pixel was originally forest, an arbitrary threshold of 30 percent forest cover is set. This "definition" is applied consistently around the world. Users can choose different thresholds, for example 10 percent.

Gross deforestation: Gross deforestation accounts for direct losses of forest cover without taking into account natural or induced forest recovery or other vegetation types that new land uses may involve.

Zero gross deforestation: The Glasgow Declaration on Forests and Land Use calls for halting and reversing forest loss and land degradation by 2030 but does not specify whether this target should be gross or net. The *Forest Declaration* Assessment 2022 uses the gross definition to assess the target to be achieved by 2030. Indicators for tracking an end-of-net-deforestation trajectory will be developed in future assessments as data become available, for example using the results of the next FAO Forest Resources Assessment in 2025.

Imported deforestation: the import of raw materials or processed products whose production has contributed, directly or indirectly, to deforestation, forest degradation or the conversion of natural ecosystems outside the national territory. (<u>Ministry of Ecological Transition and Solidarity, France, 2022</u>)

Net deforestation: deforestation that considers not only the loss of forest but also the regrowth of forest, and/or the vegetation cover inherent in the new land use.

Forest degradation: forest degradation occurs when forest ecosystems lose their capacity to provide important goods and services to people and nature. (<u>IUCN, 2021</u>)

Land degradation: a negative trend in land condition, caused by direct or indirect anthropogenic processes, including anthropogenic climate change, expressed as a long-term reduction or loss of one or more of the following: biological productivity, ecological integrity, or human value. [Note:

This definition applies to both forest and non-forest lands. Changes in land condition resulting solely from natural processes (such as volcanic eruptions) are not considered land degradation. Reduction in biological productivity or ecological integrity or value to humans may constitute degradation, but any of these changes should not necessarily be considered degradation]. (IPCC, 2019)

Sustainable development: development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. (IPCC, 2014)

Ecosystem: a functional unit consisting of living organisms, their non-living environment and all their interactions. The components of a given ecosystem and its spatial boundaries depend on the purpose for which the ecosystem is defined: in some cases, they are relatively precise and in others, relatively vague. Ecosystem boundaries can change over time. Ecosystems are nested within other ecosystems; they may be very small or represent the entire biosphere. In the present day, most ecosystems include humans as a key organism or are influenced by human activities in their environment. See also Ecosystem services. (IPCC, 2018)

Forest: a type of vegetation dominated by trees. A large number of definitions of the term forest are used around the world, due to the wide disparity in bio- geophysical conditions, social structures, and economic conditions. (IPCC, 2018)

Dry forests: the term dry forest, or sclerophyll forest, refers to a forest complex that develops in a dry climate, with less than 1,100 mm of rainfall per year and an often-prolonged dry period. (<u>CEN</u>, <u>n.d.</u>)

Greenhouse gases: gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths of the spectrum of terrestrial radiation emitted by the Earth's surface, atmosphere and clouds. It is this property that is at the origin of the greenhouse effect. Water vapor (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and ozone (O₃) are the main greenhouse gases in the Earth's atmosphere. There are also greenhouse gases resulting solely from human activities, such as halogenated hydrocarbons and other substances containing chlorine and bromine, which are covered by the Montreal Protocol. In addition to CO_2 , N₂ O, and CH₄, the Kyoto Protocol, meanwhile, addresses other greenhouse gases such as sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). (IPCC, 2018)

Mangroves: Mangroves can be defined in several ways: in the strict sense, they refer to the plant formations of certain coastal plains in tropical regions, where mangroves are the dominant species. In a broader sense, they refer to the intertidal mudflats of the intertropical zone, colonized by mangrove forests. In an even broader sense, they are amphibious spaces between land and sea,

singular (because they are specific to intertropical zones and still poorly known), shifting in time and space, and complex (multifunctional, multi-resource, multi-use). (<u>Cormier-Salem, 2004</u>)

Tree cover loss: a loss event that may or may not be permanent. Non-permanent tree cover loss commonly occurs in the context of logging, fire, or shifting agriculture. Tree cover loss data are often analyzed as a first step in measuring deforestation.

Intact Forest Landscapes (IFLs): an intact forest landscape is a homogeneous mosaic of forested and naturally treeless ecosystems within the current forest extent, which shows no remotely detected signs of human activity or habitat fragmentation and is large enough to maintain all native biological diversity, including viable populations of wide-ranging species. <u>(Global Forest</u> <u>Watch)</u>

Forest disturbance: A generic term for both deforestation and human-induced degradation in a forest area.

Non-timber forest products: a product of biological origin other than wood derived from forests, other wooded land and trees outside forests (<u>FAO</u>)

(Carbon) sink: A reservoir (natural or man-made, whether soil, ocean, or plant) in which a greenhouse gas, aerosol or precursor of these compounds is stored. According to Article 1.8 of the United Nations Framework Convention on Climate Change (UNFCCC), a sink means "any process, activity or mechanism...that removes a greenhouse gas, aerosol or precursor of a greenhouse gas from the atmosphere." (IPCC,2018)

Reforestation: planting forests on land that was formerly forested but has been converted to other uses. (IPCC, 2018)

(Capacity for) carbon sequestration: storing carbon in a carbon sink (IPCC, 2018)

REDD+: a mechanism defined under the United Nations Framework Convention on Climate Change (UNFCCC) that recognizes the role of forests in combating global warming and provides a mechanism for forest countries to protect and sustainably manage their forests. Five activities contributing to mitigation efforts in the forest sector are included: reducing emissions from deforestation, reducing emissions from forest degradation, enhancing forest carbon stocks, the role of forest conservation and sustainable forest management.

Ecosystem service: ecological processes or functions that are of interest, whether or not they are monetary, to individuals or to society as a whole. A distinction is often made between: 1) supporting services such as maintaining productivity or biodiversity; 2) provisioning services such

as food or fiber; 3) regulating services such as climate regulation or carbon sequestration; and 4) cultural services such as tourism or spiritual and aesthetic activities (IPCC, 2018).

List of acronyms

CAFI: Central African Forest Initiative

CCOD: Consultative Council of Non-Governmental Development Organizations

ECCAS: Economic Community of Central African States

CBFP: Congo Basin Forest Partnership

CEFDHAC: Central African Dense and Moist Forest Ecosystems Conference (Conférence sur les Ecosystèmes des Forêts Denses et Humide' d'Afrique Centrale)

COMIFAC: Central African Forest Commission

CONAREF: National Commission for Land Reform

COP: Conference of the Parties

COeq₂: Carbon dioxide equivalent

DRC: Democratic Republic of Congo

FAO: Food and Agriculture Organization of the United Nations

FPIC: free prior and informed consent

FLEGT: Forest Law Enforcement Governance and Trade

FRA: Global Forest Resource Assessment

Gt CO2: billion metric tons or gigatons of carbon dioxide

EITI: Extractive Industries Transparency Initiative

MtCO₂: million metric tons of carbon dioxide

NYDF: New York Declaration on Forests

OFAC: Central African Forest Observatory

IFL(s): Intact forest landscape(s)

REDD+: 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.

RRI: Rights and Resources Initiative

SNOIE: Standard Independent External Observation System

UNFCCC: United Nations Framework Convention on Climate Change

VPA: Voluntary Partnership Agreement

VSS: voluntary sustainability standards

ZDC: zero deforestation commitments

Endnotes

¹ IPCC. (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability - Summary for Policymakers. In H.-O. Pörtnerö, D. C. Roberts, H. Adams, C. Adler, & P. Aldunce (Eds.), *IPCC Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*.

https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

² IPCC. (2022). Summary for Policymakers. In P. R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, et al. (Eds.), *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.*

https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf.

³ UNFCCC. (2015). New York Declaration on Forests - Halving the loss of natural forest by 2020, striving to end it by 2030. 2 September 2022, https://unfccc.int/news/new-york-declaration-on-forests.

⁴ Dalimer, J., Achard, F., Delhez, B., Descléeé, B., Bourgoin, C., Hugh, E., et al. (2022). éDistribution of êforestéevolution according to their use. In *Les forêForests of the Congo Basin: ÉState of the Forests ê2021.*

https://www.cifor.org/publications/pdf_files/Books/Etat-des-forets-2021.pdf.

⁵ Vancutsem, C., Achard, F., Pekel, J.-F., Vieilledent, G., Carboni, S., Simonetti, D., et al. (2021). Long-term (1990-2019–) monitoring of forest cover changes in the humid tropics. *Science Advances*, 7(10), eabe1603.

https://doi.org/10.1126/sciadv.abe1603.

⁶ Dalimer, J. et al. (2022).

⁷ Vancutsem, C., Achard, F., Pekel, J.-F., Vieilledent, G., Carboni, S., Simonetti, D., et al. (2021). Long-term (1990-2019–) monitoring of forest cover changes in the humid tropics. *Science Advances*, 7(10), eabe1603. https://doi.org/10.1126/sciadv.abe1603.

⁸ Grace, J., San José, J., Meir, P., Miranda, H. S., & Montes, R. A. (2006). Productivity and carbon fluxes of tropical savannas. *Journal of Biogeography*, 33(3), 387-400–. https://doi.org/10.1111/j.1365-2699.2005.01448.x.

⁹ CIFOR. (2022). Peatlands, mangroves, and other wetlands: climate responses in the Congo Basin. 11 October 2022, https://www.cifor-icraf.org/session-detail/peatlands-mangroves-and-other-wetlands-climate-responses-in-the-congo-basin-2/.

¹⁰ Grace, J. et al. (2006).

¹¹ CIFOR. (2022).

¹² Shapiro, A. C., Grantham, H. S., Aguilar-Amuchastegui, N., Murray, N. J., Gond, V., Bonfils, D., et al. (2021). Forest condition in the Congo Basin for the assessment of ecosystem conservation status. *Ecological Indicators*, *122*, 107268. https://doi.org/10.1016/j.ecolind.2020.107268.

¹³ World Bank. (n.d.-g). Population, total. 11 October 2022, https://data.worldbank.org/indicator/SP.POP.TOTL.

¹⁴ Dramani, L., & Konan, S. Y. (2021). Do Demographic Dividends in West and Central Africa exhibit the same patterns? A generational economy approach. *IOSR Journal of Humanities and Social Science*, *26*(2), 56-67–.

https://www.researchgate.net/publication/349722645_Do_Demographic_Dividends_in_West_and_Central_Africa_exhibit_the _same_patterns_A_Generational_economy_approach.

¹⁵ Megevand, C., Mosnier, A., Hourticq, J., Sanders, K., Doetinchem, N., & Streck, C. (2013). *Deforestation Trends in the Congo Basin: Reconciling Economic Growth and Forest Protection*. https://doi.org/10.1596/978-0-8213-9742-8.
 ¹⁶ Dalimer, J. et al. (2022).

¹⁷ Nkem N., J., Somorin A., O., Jum, C., Idinoba E., M., Bele M., Y., & Sonwa J., D. (2013). Profiling climate change vulnerability of forest indigenous communities in the Congo Basin. *Mitigation and Adaptation Strategies for Global Change*, *18*, 513-533–. https://doi.org/10.1007/s11027-012-9372-8.

¹⁸ Dalimer, J. et al. (2022).

¹⁹ Bertaux, P., Baltzer, C., Angulo, J., Bosworth, C., Clinquart, P., Diangana, D., et al. (2022). Forest plantations èin Central Africa. In *Les forêForests of the Congo Basin: ÉState of the Forests ê2021*. https://www.cifor.org/publications/pdf_files/Books/Etatdes-forets-2021.pdf.

²⁰ Tyukavina, A., Hansen, M. C., Potapov, P., Parker, D., Okpa, C., Stehman, S. V., et al. (2018). Congo Basin forest loss dominated by increasing smallholder clearing. *Science Advances*, 4(11), eaat2993. https://doi.org/10.1126/sciadv.aat2993.

²¹ Gaworecki, M. (2016, January 29). First estimate of Congo Basin's pygmy population comes with warning about increasing threat of deforestation. 11 October 2022, https://news.mongabay.com/2016/01/first-estimate-of-congo-basins-pygmy-population-comes-with-warnings-about-increasing-threat-of-deforestation/.

²² Bertaux, P. et al. (2022).

²³ Tsanga, R., Assembe-Mvondo, S., Lescuyer, G., Vermeulen, C., Wardell, D. A., Kalenga, M.-A., et al. (2022). Local and indigenous peoples' rights by Ichallenged forestry eand conservation *The êForests of the Congo Basin: ÉState of the Forests ê2021*. https://www.cifor.org/publications/pdf_files/Books/Etat-des-forests-2021.pdf.

²⁴ Cayula, S. (2021, October 8). Pygmiesé, a people excluded from their own éecosystemè. 11 October 2022,

https://www.natura-sciences.com/comprendre/pygmees-peuple-rdc-exclu-foret.html.

²⁵ Tsanga, R. et al. (2022).

²⁶ Forest Peoples Programme (FPP). (2013). éIndigenous peoples' experiences 'Africawith safeguarding policies in : examples from Cameroon and the Congo Basin. 11 October 2022, https://www.forestpeoples.org/fr/topics/african-development-bank-afdb/news/2013/04/les-experiences-des-peuples-autochtones-d-afrique-.

²⁷ Tsanga, R. et al. (2022).

²⁸ IUCN (2022). New legislation to protect the rights of the Indigenous Pygmy Peoples in the DRC. 8 October 2022, https://www.iucn.org/story/202208/new-legislation-protect-rights-indigenous-pygmy-peoples-drc.

²⁹ Brown, H. C. P. (2011). Gender, climate change and REDD+ in the Congo Basin forests of Central Africa. *International Forestry Review*, 13(2), 163-176–. https://doi.org/10.1505/146554811797406651.

³⁰ Mengiste, T. A., & Nyberg Sørensenø, N. (2021). Climate change vulnerability and mobility among children and youth in *Ethiopia: current policy dilemmas and recommendations.*

https://pure.diis.dk/ws/files/4769923/Climate_change_vulnerability_and_mobility_children_youth_Ethiopia_DIIS_Report_2021_04.pdf.

³¹ United Nations Permanent Forum on Indigenous Issues. (n.d.). Climate change and indigenous peoples.

https://www.un.org/esa/socdev/unpfii/documents/backgrounder%20climate%20change_FINAL.pdf.

³² COMIFAC & OFAC. (n.d.). Analytical Platform. 11 October 2022, https://www.observatoire-comifac.net/analytical_platform.

³³ International Tropical Timber Technical Association (2021). *Report Activity2021*.

https://www.atibt.org/files/upload/Activity_report/ATIBT-RAPPORT-ACTIVITE-2021-FRANCAIS-BD.pdf.

³⁴ International Tropical Timber Technical Association (2021). Activity Report 2021.

https://www.atibt.org/files/upload/Activity_report/ATIBT-RAPPORT-ACTIVITE-2021-FRANCAIS-BD.pdf

³⁵ Fern, Sustainable Development Institute, FODER, FGDH, Civic Response, & Azur Development. (2017). éIndependent êforest : an 'opportunity to 'améimprove governance in VPA countries ? éCameroon, Ghana, Liberia, and the éRepublic of

Congo. 12 October 2022, https://www.fern.org/fileadmin/uploads/fern/Documents/forest_monitoring_final.pdf_FR.pdf. ³⁶ Doetinchen, N., Megevand, C., Braune, L., & Dulal, H. (2013). Deforestation Trends in the Congo Basin: Reconciling Economic Growth and Forest Protection - Working Paper 2: Logging. In *Deforestation Trends in the Congo Basin: Reconciling*

Economic Growth and Forest Protection. https://doi.org/10.1596/978-0-8213-9742-8.

³⁷ Duhesme, C., Gally, M., Glannaz, S., Hervo, C., Kone, Y., Lescuyer, G., et al (2022). The 'éevolution of ètimber *The êForests of the Congo Basin: ÉState of the Forests ê2021*. https://www.cifor.org/publications/pdf_files/Books/Etat-des-forets-2021.pdf.
 ³⁸ du Preez, M.-L. (2010). Whose forest is it anyway? A critical exploration of the network governance model and the Congo Basin Forest Partnership. *South African Journal of International Affairs*, *17*(2), 167-187–.
 https://doi.org/10.1080/10220461.2010.492932.

³⁹ Kengoum Djiegni, F., Thu, P., Moira, T., Bimo, M., Denis, D., Sonwa, J., et al. (2020). *The Context of REDD+ in the é Republic of éDemocraticéEdition*. https://doi.org/10.17528/cifor/007829.

⁴⁰ Debroux, L., Hart, T., Kaimowitz, D., Karsenty, A., & Topa, G. (2007). *Forests in Post-Conflict Democratic Republic of Congo: Analysis of a Priority Agenda*. https://www.cifor.org/publications/pdf_files/Books/BCIFOR0701.pdf.

⁴¹ Tchoumba, G., Tibaldeschi, P., Izquierdo, P., Nsom Zamo, A.-C., Bigombe Logo, P., & Doumenge, C. (2021). Extractive industries and protected areas in Central Africa: For better or for worse? In *State of Protected Areas in Central Africa 2020. –*). https://www.observatoire-

comifac.net/file/eyJtb2RlbCl6lkFwcFxcTW9kZWxzXFxDYXRhbG9ndWVcXE1vZHVsZXNcXEZpbGUiLCJmaWVsZCl6lmRvY3VtZW50X2ZpbGUiLCJpZCl6MjkzOH0.

⁴² Hund, K., Megevand, C., Gomes, E. P., Miranda, M., & Reed, E. W. (2013). Deforestation Trends in the Congo Basin: Reconciling Economic Growth and Forest Protection - Working Paper 4: Mining. In *Deforestation Trends in the Congo Basin: Reconciling Economic Growth and Forest Protection*. https://doi.org/10.1596/978-0-8213-9742-8.

⁴³ Megevand, C. et al. (2013).

⁴⁴ Hund, K. et al. (2013).

⁴⁵ CDP. (2021). Low-carbon technologies: An impending threat to forests. https://forestdeclaration.org/wp-

content/uploads/2021/08/CDP_NYDF_Low_carbon_technologies.pdf.

⁴⁶ Hund, K. et al. (2013).

⁴⁷ Megevand, C. et al. (2013).

⁴⁸ Dargie, G. C., Lawson, I. T., Rayden, T. J., Miles, L., Mitchard, E. T. A., Page, S. E., et al. (2019). Congo Basin peatlands: threats and conservation priorities. *Mitigation and Adaptation Strategies for Global Change*, 24(4), 669-686–. https://doi.org/10.1007/s11027-017-9774-8.

⁴⁹ Greenfield, P. (2022, July 23). DRC to auction oil and gas permits in endangered gorilla habitat. *The Guardian*. https://www.theguardian.com/environment/2022/jul/23/democratic-republic-of-congo-auction-oil-gas-permits-endangered-gorilla-habitat-aoe.

⁵⁰ Tchatchou, B., Sonwa, D. J., Ifo, S., & Tiani, A. M. (2015). *Deforestation and forest degradation in the Congo Basin: State of knowledge, current causes and perspectives*. In Occasional Paper 144. https://doi.org/10.17528/cifor/005894..

⁵¹ PFBC. (n.d.). ÉEcosystems èForest 'Exceptional 11 October 2022, https://pfbc-cbfp.org/ecosystemes-bassin-congo.html. ⁵² PFBC. (n.d.).

⁵³ Saatchi, S. S., Harris, N. L., Brown, S., Lefsky, M., Mitchard, E. T. A., Salas, W., et al. (2011). Benchmark map of forest carbon stocks in tropical regions across three continents. *Proceedings of the National Academy of Sciences*, *108*(24), 9899-9904–. https://doi.org/10.1073/pnas.1019576108.

⁵⁴ Saatchi, S. S. et al. (2011).

⁵⁵ Xu, L., Saatchi, S. S., Shapiro, A., Meyer, V., Ferraz, A., Yang, Y., et al. (2017). Spatial Distribution of Carbon Stored in Forests of the Democratic Republic of Congo. *Scientific Reports*, 7(1), 15030. https://doi.org/10.1038/s41598-017-15050-z.

⁵⁶ Harris, N. L., Gibbs, D. A., Baccini, A., Birdsey, R. A., de Bruin, S., Farina, M., et al. (2021). Global maps of twenty-first century forest carbon fluxes. *Nature Climate Change*, 11(3), 234-240–. https://doi.org/10.1038/s41558-020-00976-6.

⁵⁷ Harris, N. L., Gibbs, D. A., Baccini, A., Birdsey, R. A., de Bruin, S., Farina, M., et al. (2021). Global maps of twenty-first century forest carbon fluxes. *Nature Climate Change*, 11(3), 234-240–. https://doi.org/10.1038/s41558-020-00976-6.

⁵⁸ Noon, M. L., Goldstein, A., Ledezma, J. C., Roehrdanz, P. R., Cook-Patton, S. C., Spawn-Lee, S. A., et al. (2022). Mapping the irrecoverable carbon in Earth's ecosystems. *Nature Sustainability*, *5*(1), 37-46–. https://doi.org/10.1038/s41893-021-00803-6.
 ⁵⁹ Eba'a Atyi, R., Tchuente, V., & Pokem, D. (2022). éMatching international financial flows with the implementation of the COMIFAC convergence plan. In *Les forêForests of the Congo Basin: ÉState of the Forests ê2021.*

https://www.cifor.org/publications/pdf_files/Books/Etat-des-forets-2021.pdf.

⁶⁰ Loise, J., Gallego-Sala, A. (2022). Ecological resilience of restored peatlands to climate change. *Communications Earth & Environment*, 3, 208. https://doi.org/10.1038/s43247-022-00547-x.

⁶¹ Crezee, B., Dargie, G. C., Ewango, C. E. N., Mitchard, E. T. A., Emba B., O., Kanyama T., J., et al. (2022a). Mapping peat thickness and carbon stocks of the central Congo Basin using field data. *Nature Geoscience*, *15*(8), 639-644–. https://doi.org/10.1038/s41561-022-00966-7.

⁶² Akana, D. (2017, November 2). Peatlandsè, a new èDRC to capitalize on. 11 October 2022, https://infocongo.org/fr/lestourbieres-une-nouvelle-ressource-forestiere-de-la-rdc-a-capitaliser/.

⁶³ Arias, P. A., Bellouin, N., Jones, R. G., Naik, V., Plattner, G.-K., Rogelj, J., et al. (2021). Technical Summary. In *Climate Change* 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, pp. 33-144–).

https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_TS.pdf.

⁶⁴ IPCC. (2021). Summary for Policymakers. In V. Masson-Delmotte, P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, et al. (Eds.), *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*.

https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf.

⁶⁵ School of Geography News. (2020, March 5). Tropical forests' carbon sink 'already rapidly weakening'. 8 September 2022, https://environment.leeds.ac.uk/geography/news/article/5308/tropical-forests-carbon-sink-already-rapidly-weakening.
 ⁶⁶ Hubau, W., Lewis, S. L., Phillips, O. L., Affum-Baffoe, K., Beekman, H., & et al. (2020). Asynchronous carbon sink saturation in African and Amazonian tropical forests. *Nature*. https://www.nature.com/articles/s41586-020-2035-0.

⁶⁷ Hubau, W. et al. (2020).

⁶⁸ RRéjou-Méchainjou-Mé, M., Mortier, F., Bastin, J.-F., Cornu, G., Barbier, N., Bayol, N., et al. (2021). Unveiling African rainforest composition and vulnerability to global change. *Nature*, *593*(7857), 90-94–. https://doi.org/10.1038/s41586-021-03483-6.
 ⁶⁹ Protecting and restoring forests: 2019 NYDF Assessment report - Forest Declaration. (n.d.). 17 March 2022,

https://forestdeclaration.org/resources/protecting-and-restoring-forests/.

⁷⁰ NYDF Assessment Partners (2020). Balancing forests and development: Addressing infrastructure and extractive industries, promoting sustainable livelihoods. https://forestdeclaration.org/images/uploads/resource/2020NYDFReport.pdf.
⁷¹ NYDF Assessment Partners. (2021). Taking stock of national climate action for forests.

https://forestdeclaration.org/resources/taking-stock-of-national-climate-action-for-forests/.

⁷² Timperley, J. (2021). The broken \$100-billion promise of climate finance - and how to fix it. *Nature*, 598(7881), 400-402-. https://doi.org/10.1038/d41586-021-02846-3.

⁷³ OECD. (n.d.). Climate Finance and the USD 100 Billion Goal. 7 October 2022, https://www.oecd.org/climate-change/finance-usd-100-billion-goal/.

⁷⁴ RéRepublic of Cameroon (2021). Contribution DeterminedterminéNationally é(NDC).

https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20r%C3%A9vis%C3%A9e%20CMR%20finale%20sept%202021.pdf.

⁷⁵ RéGabonese Republic. (2022). Second DeterminedterminéNationally. https://unfccc.int/sites/default/files/NDC/2022-07/20220706_Gabon_Updated%20NDC.pdf.

⁷⁶ Ré Republic éDemocraticContribution Déterminée terminée à l'Échelle Nationale Réviséevisée.

https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20Revis%C3%A9e%20de%20la%20RDC.pdf.

⁷⁷ RéRepublic of Congo. 2021. *Contribution DeterminedterminéNationally éRepublic of Congo.* https://unfccc.int/sites/default/files/NDC/2022-06/CDN_Congo.pdf.

⁷⁸ COMIFAC. (n.d.). Summit of Heads of 'State and Government. 9 September 2022, https://www.comifac.org/apropos/dispositif-institutionnel/sommet-des-chefs-d-etat.

 ⁷⁹ COMIFAC. (2005). TraitTreaty on àConservation and the Sustainable Management of èForest 'Central Africa and Establishing the êAfrican 'Central . https://comifac.org/images/documents/traitecomifac_fran%C3%A7ais.pdf.
 ⁸⁰ COMIFAC. (2005).

⁸¹ OFAC. (n.d.-b). OFAC - ÉState of the Forestsê. 11 October 2022, https://www.observatoire-comifac.net/publications/edf. ⁸² OFAC. (n.d.-a). National Indicators. 11 October 2022, https://www.observatoire-

comifac.net/monitoring_system/national_indicators/nl.

⁸³ COMIFAC & OFAC. (n.d.).

⁸⁴ Harris, N., Petersen, R., Davis, Crystal, & Payne, O. (2016, August 1). Global Forest Watch and the Forest Resources Assessment, Explained in 5 Graphics. 1 October 2022, https://www.globalforestwatch.org/blog/data-and-research/globalforest-watch-and-the-forest-resources-assessment-explained-in-5-graphics-2.

⁸⁵ Bos, A. B., De Sy, V., Duchelle, A. E., Herold, M., Martius, C., & Tsendbazar, N.-E. (2019). Global data and tools for local forest cover loss and REDD+ performance assessment: Accuracy, uncertainty, complementarity and impact. *International Journal* of Applied Earth Observation and Geoinformation, 80, 295-311–. https://doi.org/10.1016/j.jag.2019.04.004.
⁸⁶ Dalimer, J. et al. (2022).

⁸⁷ Shapiro, A., d''Annunzio, R., Jungers, Q., Descléeé, B., Kondjo, H., Iyanga, J. M., et al. (2022). Are deforestation and degradation in the Congo Basin on the rise? An analysis of recent trends and associated direct drivers [Preprint]. https://doi.org/10.21203/rs.3.rs-2018689/v1.

⁸⁸ FAO. (2022). FRA 2020 Remote Sensing Survey. FAO Forestry Papers: Vol. 186. https://doi.org/10.4060/cb9970en.
 ⁸⁹ Hansen, M. C., Potapov, P. V., Moore, R., Hancher, M., Turubanova, S. A., Tyukavina, A., et al. (2013). High-Resolution Global Maps of 21st-Century Forest Cover Change. Science, 342(6160), 850-853–. https://doi.org/10.1126/science.1244693.

⁹⁰ Megevand, C. et al. (2013).

⁹¹ Vancutsem, C. et al. (2021).

⁹² Dalimer, J. et al. (2022).
⁹³ FAO. (2022).

⁹⁴ Shapiro, A. et al. (2022).

⁹⁵ Intact Forest Landscapes (n.d.). Intact Forest Landscapes: Concept. https://intactforests.org/concept.html.

⁹⁶ Dalimer, J. et al. (2022).

⁹⁷ Dalimer, J. et al. (2022).

⁹⁸ Thomson, I., Guariguata, M. R., Okabe, K., Bahamondez, C., Nasi, R., Heymell, V., et al. (2013). An Operational Framework for Defining and Monitoring Forest Degradation. *Ecology and Society.*

https://www.jstor.org/stable/26269330#metadata_info_tab_contents.

⁹⁹ Thomson, I. et al. (2013).

¹⁰⁰ 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 and Management*, *11*(1), 11. https://doi.org/10.1186/s13021-016-0054-9.

¹⁰¹ Shapiro, A. C. et al. (2016).

¹⁰² Haddad, N. M., Brudvig, L. A., Clobert, J., Davies, K. F., Gonzalez, A., Holt, R. D., et al. (2015). Habitat fragmentation and its lasting impact on Earth's ecosystems. *Science Advances*, 1(2), e1500052. https://doi.org/10.1126/sciadv.1500052.

¹⁰³ Grantham, H. S., Duncan, A., Evans, T. D., Jones, K. R., Beyer, H. L., Schuster, R., et al. (2020). Anthropogenic modification of forests means only 40% of remaining forests have high ecosystem integrity. *Nature Communications*, *11*(1), 5978. https://doi.org/10.1038/s41467-020-19493-3.

¹⁰⁴ Shapiro, A. C. et al. (2021).

¹⁰⁵ Vancutsem, C. et al. (2021).

¹⁰⁶ Dalimer, J. et al. (2022).

¹⁰⁷ Forest Integrity (n.d.). Forest Landscape Integrity Index. August 31, 2022. https://www.forestintegrity.com/.

¹⁰⁸ Grantham, H. S. et al. (2020).

¹⁰⁹ Shapiro, A. et al. (2022).

¹¹⁰ Geist, H. J., & Lambin, E. F. (2001). What Drives Tropical Deforestation? A meta-analysis of proximate and underlying causes of deforestation based on subnational case study evidence.

https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.611.2476&rep=rep1&type=pdf.

¹¹¹ Megevand, C. et al. (2013).

¹¹² Pacheco, P., Mo, K., Dudley, N., Shapiro, A., Aguilar-Amuchastegui, N., Ling, P. Y., et al. (2021). *Deforestation fronts: Drivers* and responses in a changing world.

https://c402277.ssl.cfl.rackcdn.com/publications/1420/files/original/Deforestation_fronts_-

_drivers_and_responses_in_a_changing_world_-_full_report_%281%29.pdf?1610810475.

¹¹³ Megevand, C. et al. (2013).

¹¹⁴ Geist, H. J., & Lambin, E. F. (2001).

¹¹⁵ Tyukavina, A. et al. (2018).

¹¹⁶ Shapiro, A. et al. (2022).

¹¹⁷ Jayathilake, H. M., Prescott, G. W., Carrasco, L. R., Rao, M., & Symes, W. S. (2021). Drivers of deforestation and degradation for 28 tropical conservation landscapes. *Ambio*, *50*(1), 215-228–. https://doi.org/10.1007/s13280-020-01325-9.
 ¹¹⁸ Shapiro, A. et al. (2022).

¹¹⁹ Tchatchou, B., Sonwa, D. J., Ifo, S., & Tiani, A. M. (2015). *Deforestation and forest degradation in the Congo Basin: State of knowledge, current causes and perspectives. Occasional Paper 144.* https://doi.org/10.17528/cifor/005894.

¹²⁰ Laurance, W. F., Sloan, S., Weng, L., & Dunnink, J. A. (2015). Estimating the Environmental Costs of Africa''s Massive "Development Corridors" .*Current Biology*, *25*(4), 3202-3208–. https://doi.org/10.1016/j.cub.2015.10.046.

¹²¹ Rademaekers, K., Eichler, L., Berg, J., Obersteiner, M., & Havlíkí, P. (2010). Study on the evolution of some deforestation drivers and their potential impacts on the costs of an avoiding deforestation scheme.

https://ec.europa.eu/environment/enveco/biodiversity/pdf/deforestation_drivers_annexes.pdf.

¹²² Laurance, W. F. et al. (2015).

¹²³ Laurance, W. F., Campbell, M. J., Alamgir, M., & Mahmoud, M. I. (2017). Road Expansion and the Fate of Africa's Tropical Forests. *Frontiers in Ecology and Evolution*, *5*(75). https://doi.org/10.3389/fevo.2017.00075.

¹²⁴ Kleinschroth, F., Laporte, N., Laurance, W. F., Goetz, S. J., & Ghazoul, J. (2019). Road expansion and persistence in forests of the Congo Basin. *Nature Sustainability*, 2(7), 628-634–. https://doi.org/10.1038/s41893-019-0310-6.

¹²⁵ Shapiro, A. et al. (2022).

¹²⁶ Tchatchou, B. et al. (2015).

¹²⁷ Shapiro, A., Bernhard, K. P., Zenobi, S., Müllerü, D., Aguilar-Amuchastegui, N., & d'Annunzio, R. (2021). Proximate Causes of Forest Degradation in the Democratic Republic of the Congo Vary in Space and Time. *Frontiers in Conservation Science*, 2. https://doi.org/10.3389/fcosc.2021.690562.

¹²⁸ Lhoest, S., Fonteyn, D., Daïnouï, K., Delbeke, L., Doucet, J.-L., Dufrêneê, M., et al. (2020). Conservation value of tropical forests: Distance to human settlements matters more than management in Central Africa. *Biological Conservation*, *241*, 108351. https://doi.org/10.1016/j.biocon.2019.108351. ¹²⁹ Shapiro, A. et al. (2022).

¹³⁰ Weng, L., Boedhihartono, A. K., Dirks, P. H. G. M., Dixon, J., Lubis, M. I., & Sayer, J. A. (2013). Mineral industries, growth corridors and agricultural development in Africa. *Global Food Security*, *2*(3), 195-202–. https://doi.org/10.1016/j.gfs.2013.07.003.
 ¹³¹ Crezee, B., Dargie, G. C., Ewango, C. E. N., Mitchard, E. T. A., Emba B., O., Kanyama T., J., et al. (2022b). Mapping peat thickness and carbon stocks of the central Congo Basin using field data. *Nature Geoscience*, *15*(8), 639-644–. https://doi.org/10.1038/s41561-022-00966-7.

¹³² Harris, T. (2022). Greenpeace tells Big Oil to stay clear of Congo's carbon bomb. 5 October 2022,

https://www.greenpeace.org/africa/en/press/51841/greenpeace-tells-big-oil-to-stay-clear-of-congos-carbon-bomb/. ¹³³ RRéjou-Méchainjou-Mé, M. et al. (2021).

¹³⁴ Edwards, D. P., Sloan, S., Weng, L., Dirks, P., Sayer, J., & Laurance, W. F. (2014). Mining and the African Environment. *Conservation Letters*, 7(3), 302-311–. https://doi.org/10.1111/conl.12076.

¹³⁵ Shapiro, A. et al. (2022).

¹³⁶ Laurance, W. F., Alonso, A., Lee, M., & Campbell, P. (2006). Challenges for forest conservation in Gabon, Central Africa. *Futures*, *38*(4), 454-470–. https://doi.org/10.1016/j.futures.2005.07.012.

¹³⁷ Shapiro, A. et al. (2022).

¹³⁸ Tchatchou, B. et al. (2015).

¹³⁹ Shapiro, A. et al. (2022).

¹⁴⁰ Shapiro, A. et al. (2022).

¹⁴¹ Tchatchou, B. et al. (2015).

¹⁴² Ordway, E. M., Naylor, R. L., Nkongho, R. N., & Lambin, E. F. (2019). Oil palm expansion and deforestation in Southwest Cameroon associated with proliferation of informal mills. *Nature Communications*, *10*(114). https://doi.org/10.1038/s41467-018-07915-2.

¹⁴³ Shapiro, A. et al. (2022).

¹⁴⁴ NYDF Assessment Partners (2020). Balancing forests and development: Addressing infrastructure and extractive industries, promoting sustainable livelihoods. https://forestdeclaration.org/images/uploads/resource/2020NYDFReport.pdf.
¹⁴⁵ Walker, W. S., Gorelick, S. R., Baccini, A., Aragón-Osejoó, J. L., Josse, C., Meyer, C., et al. (2020). The role of forest conversion, degradation, and disturbance in the carbon dynamics of Amazon indigenous territories and protected areas. *Proceedings of the National Academy of Sciences*, 117(6), 3015-3025–. https://doi.org/10.1073/pnas.1913321117.

¹⁴⁶ Blackman, A., Corral, L., Lima, E. S., & Asner, G. P. (2017). Titling indigenous communities protects forests in the Peruvian Amazon. *Proceedings of the National Academy of Sciences*, *114*(16), 4123-4128–. https://doi.org/10.1073/pnas.1603290114.
 ¹⁴⁷ Stevens, C., Winterbottom, R., Springer, J., & Reytar, K. (2014). *Securing Rights, Combating Climate Change: How*

Strengthening Community Forest Rights Mitigates Climate Change. https://files.wri.org/d8/s3fs-public/securingrights-full-report-english.pdf.

¹⁴⁸ Wehkamp, J., Koch, N., Lübbersü, S., & Fuss, S. (2017). Governance and deforestation - a meta-analysis in economics. *Ecological Economics*, 144, 214-227–. https://doi.org/10.1016/j.ecolecon.2017.07.030.

¹⁴⁹ Dawson, N., Coolsaet, B., Sterling, E., Loveridge, R., Gross-Camp, Nicole D., Wongbusarakum, S., et al. (2021). The role of Indigenous peoples and local communities in effective and equitable conservation. *Ecology and Society*, *26*(3). https://doi.org/10.5751/ES-12625-260319.

¹⁵⁰ IUCN. (2016). Land rights and nature conservation in Democratic Republic of the Congo.

https://www.iucn.org/sites/default/files/2022-06/tger_drc_final_-english.pdf.

¹⁵¹ Rainforest Foundation UK. (2020). *Mapping the future: Towards meaningful participation of forest peoples in land use planning in DRC and Cameroon*. https://www.mappingforrights.org/wp-content/uploads/2020/04/9a32f99c-8a50-4515-bea7-647ac2d2d439.pdf.

¹⁵² Community Forest Database. (n.d.). Official community forest database of the Democratic Republic of Congo. 5 October 2022, https://rdc.geocfcl.org/applications/.

¹⁵³ Rights and Resources Initiative. (2021). Status of Legal Recognition of Indigenous Peoples', Local Communities' and Afrodescendant Peoples' Rights to Carbon Stored in Tropical Lands and Forests. https://doi.org/10.53892/KMMW8052.
¹⁵⁴ Community Forest Database. (n.d.).

¹⁵⁵ Schneider, V. (2020). Poor governance fuels 'horrible dynamic' of deforestation in DRC. 1 September 2022,

https://news.mongabay.com/2020/12/poor-governance-fuels-horrible-dynamic-of-deforestation-in-drc/.

¹⁵⁶ Searcey, D. (2022). Raft by Raft, a Rainforest Loses Its Trees. *The New York Times*.

https://www.nytimes.com/interactive/2022/06/14/climate/congo-rainforest-logging.html.

 ¹⁵⁷ Tegegne, Y. T. (2016). FLEGT and REDD+ synergies and impacts in the Congo Basin : lessons for global forest governance (Academic dissertation for the Dr. Sc. (Agric.&For.) Degree, University of Helsinki). https://helda.helsinki.fi/handle/10138/169117.
 ¹⁵⁸ Piabuo, S. M., Minang, P. A., Tieguhong, C. J., Foundjem-Tita, D., & Nghobuoche, F. (2021). Illegal logging, governance effectiveness and carbon dioxide emission in the timber-producing countries of Congo Basin and Asia. *Environment*,

Development and Sustainability, 23(10), 14176-14196–. https://doi.org/10.1007/s10668-021-01257-8.

¹⁵⁹ Majambu, E., Demaze, M. T., & Ongolo, S. (2021). The politics of forest governance failure in the Democratic Republic of Congo (DRC): lessons from 35 years of political rivalries. *International Forestry Review*, 23(3), 321-337–. https://doi.org/10.1505/146554821833992857.

¹⁶⁰ Mo Ibrahim Foundation. (2020). 2020 Ibrahim Index of African Governance: Index Report.

https://mo.ibrahim.foundation/sites/default/files/2020-11/2020-index-report.pdf.

¹⁶¹ World Rainforest Movement. (2016). *The Congo Basin: in the Sights of Capital*. https://www.wrm.org.uy/bulletinarticles/the-congo-basin-in-the-sights-of-capital.

¹⁶² Rainforest Foundation UK. (2020). *Mapping the future: Towards meaningful participation of forest peoples in land use planning in DRC and Cameroon*. Retrieved é15, June

¹⁶³ Rainforest Foundation UK. (2020).

 ¹⁶⁴ RéRepublic of Cameroon (1994). Law No. 94/01 of January 20, 1994 to establish the éregime of êforests, wildlife and êfisheries. http://www.droit-afrique.com/upload/doc/cameroun/Cameroun-Loi-1994-01-regime-forets-faune-peche.pdf.
 ¹⁶⁵ RéRepublic of Cameroon. (2018). StratéNational Strategy for éReducing Emissions from Deforestation and éForest Degradationê, Sustainable Forest Managementê, Forest Conservation êand Carbon Stock Increase.

http://extwprlegs1.fao.org/docs/pdf/Cmr186285.pdf.

¹⁶⁶ RéGabonese Republic. (2001). Loi Nº 016/2001 Portant Code Forestier en éRépublique Gabonaise.

https://www.clientearth.fr/media/0rjbadal/2001-12-31-loi-n162001-du-31122001-portant-code-forestier-en-republique-gabonaise-ext-fr.pdf.

¹⁶⁷ RéGabonese Republic. (2014a). Loi n°002/2014 Portant orientation du éDéveloppement Durable en éRépublique Gabonaise. 26 September 2022, http://extwprlegs1.fao.org/docs/pdf/Gab174569.pdf.

¹⁶⁸ RéGabonese Republic. (2007). *Law No. 003/2007 on National Parks.* 26 September 2022,

http://extwprlegs1.fao.org/docs/pdf/gab79512.pdf.

¹⁶⁹ Ré Republic of éDemocratic*Loi N°011/2002 du 29 ûaoût 2002 portant Code forestier*.

https://repositories.lib.utexas.edu/bitstream/handle/2152/5983/3236.pdf?sequence=1&isAllowed=y#:~:text=la%20gestion%20for esti%C3%A8re-,a.jouissance%20paisible%20des%20for%C3%AAts%20conc%C3%A9d%C3%A9es.

¹⁷⁰ Ré Republic of éDemocraticStratéNational REDD+ Framework Strategy of the é Republic of éDemocratic.

https://redd.unfccc.int/uploads/3262_1_strategie-cadre_nationale_redd_de_la_rdc_1-corps_infographie1.pdf.

¹⁷¹ RéRepublic of Congo (2020, July 8). *Law No.* °33-2020 of July 8, 2020, on the Forestry Code. 1 September 2022, https://www.fao.org/faolex/results/details/en/c/LEX-FAOC197361/.

¹⁷² RéRepublic of Congo. (n.d.). *DéDécret n°2002- 437 du 31 éDécembre 2002 Fixant les Conditions de Gestion et d'Utilisation des Forêtsêts*. http://extwprlegs1.fao.org/docs/pdf/con35744.pdf.

¹⁷³ RéRepublic of Congo. (2014). *La Politique Forestière ède la éRépublique du Congo (2014-2025).* http://extwprlegs1.fao.org/docs/pdf/con143403.pdf.

¹⁷⁴ COMIFAC. (2020). *Environment* : *Congo érevises its énational strategy*. 13 October 2022, https://pfbc-cbfp.org/actualitespartenaires/nationale-COMIFAC.html.

¹⁷⁵ RéRepublic of Congo. (2016). StratéNational REDD+ Strategy of the éRepublic of Congo.

https://www.cafi.org/sites/default/files/2021-02/RCongo%20National%20REDD%2B%20Strategy-

%20%20validated%20version%2016%20July%202016%29%20%281%29.pdf.

¹⁷⁶ RéRepublic of Cameroon (2011). *Law No. 2011/008 of May 6, 2011 on the 'Orientation for the 'Planning éand éSustainable* Development of the Territory in Cameroon. http://extwprlegs1.fao.org/docs/pdf/Cmr192524.pdf.

¹⁷⁷ RéRepublic of Congo.(2014). Law No. 43-2014 of October 10, 2014, on the 'orientation for the 'améplanning and édevelopment of the territory. http://extwprlegs1.fao.org/docs/pdf/con143310.pdf.

¹⁷⁸ Acworth, J., & Douard, P. (2012). *The role of land use planning in Central Africa*. https://pfbc-cbfp.org/actualitespartenaires/Package-%C3%A9tudes-

PFBC.html?file=files/docs/key_docs/Publications%20du%20PFBC/2021_CBFP_LUP%20in%20CongoBasin_Report.pdf. ¹⁷⁹ Central African Forest Initiative (CAFI). (2018). *National land use planning and forest monitoring to promote sustainable development strategies for Gabon*. https://www.cafi.org/sites/default/files/2021-02/Gabon_pRODOC_AFD_CAFI_FINAL.pdf. ¹⁸⁰ Rainforest Foundation UK. (2020).

¹⁸¹ Democratic Republic of Congo (2020). DRC: National Policy on Land Use Planning (PNAT), approved by the Council of Ministers. 13 October 2022, https://www.primature.cd/public/2020/07/04/rdc-la-politique-nationale-de-lamenagement-du-territoire-pnat-approuvee-en-conseil-des-ministres/.

¹⁸² Democratic Republic of Congo. (2021b). National Strategic Development Plan 2019-2023.

https://www.undp.org/fr/drcongo/publications/plan-national-strat%C3%A9gique-de-d%C3%A9veloppement. ¹⁸³ ClientEarth. (2016). Guide d'application de l'Arrêté n°105/2014 du 6 mai 2014 fixant le modèle de Cahier de Charges Contractuelles en République Gabonaise - Gabon. https://www.clientearth.fr/actualites/ressources/guide-d-application-de-larr%C3%AAt%C3%A9-n-105-2014-du-6-mai-2014-fixant-le-mod%C3%A8le-de-cahier-de-charges-contractuelles-enr%C3%A9publique-gabonaise-gabon/. Accessed October 27, 2022.

¹⁸⁴ Sylvie Gourlet-Fleury (2022). What édefinitions for êts dforestsCentral African ? Presented at the Libreville. https://ur-forets-societes.cirad.fr/content/download/5862/43351/version/1/file/20220706_definitions_des_forets_SGF_PFBC.pdf.
¹⁸⁵ ATIBT. (2021, September 24). éDefining «"forêforest " in the context of the Congo Basin. 4 October 2022,

https://www.atibt.org/fr/news/13059/definir-la-foret-dans-le-contexte-du-bassin-du-congo.

¹⁸⁶ Central African Forest Initiative (CAFI). (2022). The 'DRC-CAFI. https://fonaredd-rdc.org/wp-content/uploads/2022/06/LoI-RDC-CAFI-one-pager-A4.pdf.

¹⁸⁷ Lescuyer, G., Lang, C.-C., Tchoumba, B., Defo, L., Gourlet-Fleury, S., Guizol, P., et al. (2022). Combating éimported deforestation éand commitments to ézero édeforestation. In *The êForests of the Congo Basin: ÉState of the Forests ê2021*. https://www.cifor.org/publications/pdf_files/Books/Etat-des-forets-2021.pdf.

¹⁸⁸ RéRepublic of Cameroon (2020). StratéNational éDevelopmentéInclusive Development.

http://cdnss.minsante.cm/sites/default/files/Strat%C3%A9gie%20Nationale%20de%20D%C3%A9veloppement%20SND30_Fen ch.pdf.

¹⁸⁹ RéRepublic of Cameroon (2011). PaperéGrowth and 'Employment .

https://www.paris21.org/sites/default/files/Cameroon_DSCE2010-20.pdf.

¹⁹⁰ RéGabonese Republic. (2012). PlanéEmerging Gabon StrategicéStrategic. https://www.cafi.org/sites/default/files/2021-02/Gabon_2015_SM%20A_PlanStrategiqueGabonEmergent.pdf. ¹⁹¹ Ré Republic éDemocratic

¹⁹² Ré Republic of éDemocratic *PaperéGrowth and éPoverty Reductioné: è2nd énéGeneration (GPRSP 2) 2011-2015.* https://planipolis.iiep.unesco.org/sites/default/files/ressources/rdc_-_2011-2015_-

_document_de_strategie_de_reduction_de_la_pauvrete.pdf.

¹⁹³ RéRepublic of Congo. 2022. *National éDevelopment*. https://gouvernement.cg/wp-content/uploads/2022/07/CSD-PND-2022-2026.pdf.

¹⁹⁴ RéRepublic of Congo. (2012). *National éDevelopment*. https://www.cabri-

sbo.org/uploads/bia/republic_of_the_congo_2012_planning_external_national_plan_author_region_french_.pdf. ¹⁹⁵ RéRepublic of Congo.(2018). *National éDevelopment.* https://pnd.plan.gouv.cg/wp-

content/uploads/2018/10/PPAP_Final.pdf.

¹⁹⁶ RéRepublic of the Congo (2012). *Paper éGrowth, 'Employment and é Reduction Poverty(DSCERP 2012-2016)*. https://www.afdb.org/fr/documents/document/congo-document-de-strategie-pour-la-croissance-lemploi-et-la-reductionde-la-pauvrete-dscerp-2012-2016-30118.

¹⁹⁷ Proces, P., Jomha Djossi, D., Nsom Zamo, A.-C., & Nzita Nganga, M. (2020). Dynamics of protected areas in Central Africa : from ecological issues to socio-economic development. In *State of Protected Areas in Central Africa 2020.* https://www.observatoire-

comifac.net/file/eyJtb2RlbCl6lkFwcFxcTW9kZWxzXFxDYXRhbG9ndWVcXE1vZHVsZXNcXEZpbGUiLCJmaWVsZCl6lmRvY3VtZW50X2ZpbGUiLCJpZCl6MjkzMn0.

¹⁹⁸ Pyhäläälä, A., Orozco, A. O., & Counsell, S. (2016). *Protected Areas in the Congo Basin: Failing Both People and Biodiversity?* https://www.rainforestfoundationuk.org/media.ashx/protected-areas-in-the-congo-basin-failing-both-people-and-diversityenglish.pdf.

¹⁹⁹ Doumenge, C., Palla, F., & Itsoua Madzous, G.-L. (Eds.). (2020). *State of Protected Areas in Central Africa 2020*. https://www.observatoire-

comifac.net/file/eyJtb2RlbCl6lkFwcFxcTW9kZWxzXFxDYXRhbG9ndWVcXE1vZHVsZXNcXEZpbGUiLCJmaWVsZCl6lmRvY3VtZW50X2ZpbGUiLCJpZCl6MjkzMX0.

²⁰⁰ RRéjou-Méchainjou-Mé, M. et al. (2021).

²⁰¹ Tchoumba, G. et al. (2021).

²⁰² Forest Carbon Partnership Facility (2021). 2021 Annual Report.

https://www.forestcarbonpartnership.org/system/files/documents/fcpf_2021_annual_report_websngl_fnl_1_13_2022.pdf.

²⁰³ Gourlay, P. (2022, September 1). World Bank to start payments to DRC to protect rainforest -source " Carbon Pulse. *Carbon Pulse*. https://carbon-pulse.com/170838/.

²⁰⁴ Pirker, J., & Carodenuto, S. (2021). *Current State, Barriers and Perspectives for REDD+ in the Congo Basin*. https://pfbccbfp.org/actualites-partenaires/Package-%C3%A9tudes-

PFBC.html?file=files/docs/key_docs/Publications%20du%20PFBC/2021_CBFP_REDD%2B%20in%20the%20Congo%20Basin_R eport.pdf.

²⁰⁵ Pirker, J., & Carodenuto, S. (2021).

²⁰⁶ Pirker, J., & Carodenuto, S. (2021).

²⁰⁷ REDD+ is an international mechanism launched in 2008 to combat global warming caused by greenhouse gas emissions from forest degradation, destruction and fragmentation.

²⁰⁸ Pirker, J., & Carodenuto, S. (2021).

²⁰⁹ Kengoum Djiegni, F., Thuy, P., & Sonwa, D. (2020). *A decade of REDD+ in a changing political environment in the Democratic Republic of Congo*. https://doi.org/10.17528/cifor/007893.

²¹⁰ Berk, N., & Lungungu, P. (2020). *REDD-MINUS: The Rhetoric and Reality of the Mai Ndombe REDD+ Programme.* https://www.rainforestfoundationuk.org/media.ashx/redd-minus.pdf. ²¹¹ Dummett, C., & Blundell, A. (2021). *Illicit harvest, complicit goods: The state of illegal deforestation for agriculture.* https://www.forest-trends.org/wp-content/uploads/2021/05/Illicit-Harvest-Complicit-Goods.pdf.

²¹² Ordway, E. M., Asner, G. P., & Lambin, E. F. (2017). Deforestation risk due to commodity crop expansion in sub-Saharan Africa. *Environmental Research Letters*, 12(4), 044015. https://doi.org/10.1088/1748-9326/aa6509.

²¹³ Ordway, E. M. et al. (2019).

²¹⁴ Feintrenie, L. (2014). Agro-industrial plantations in Central Africa, risks and opportunities. *Biodiversity and Conservation*, 23, 1577-1589. https://doi.org/10.1007/s10531-014-0687-5.

²¹⁵ Ordway, E. M. et al. (2017).

²¹⁶ European Commission (n.d.) *FLEGT Regulation - FLEGT Voluntary Partnership Agreements (VPAs).* 27 October 2022. https://ec.europa.eu/environment/forests/flegt.htm

²¹⁷ European Union (2010) Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market Text with EEA relevance. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32010R0995

²¹⁸ European Parliament (2022). Amendments adopted by the European Parliament on 13 September 2022 on the proposal for a regulation of the European Parliament and of the Council on making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. https://www.europarl.europa.eu/doceo/document/TA-9-2022-0311_EN.html

²¹⁹ European Commission (2021). Proposal for a Regulation on deforestation-free products.

https://ec.europa.eu/environment/forests/deforestation-proposal.htm

²²⁰ Government of the United Kingdom (2021). Environment Act 2021. https://www.legislation.gov.uk/ukpga/2021/30/contents
 ²²¹ French Ministry of Ecological Transition and Territorial Cohesion (2022). *Fight against imported deforestation*.
 https://www.ecologie.gouv.fr/lutte-deforestation-importee-

SNDI#:~:text=The%20SNDI%20has%20for%20purpose,practices%20to%20decrease%20the%20d%C3%A9forestation.

²²² WWF (2021). When Europeans consume, the forests are consumed. https://www.wwf.fr/sites/default/files/doc-2021-

04/20210414_Rapport_Quand-les-europeens-consomment-les-forets-se-consument_WWF.pdf

²²³ United States Congress (2021). *Forest Act of 2021*. https://www.congress.gov/bill/117th-congress/senate-bill/2950/text?r=2&s=2

²²⁴ United States Congress (2018). Tropical Forest Conservation Reauthorization Act of 2018.

https://www.congress.gov/bill/115th-congress/senate-bill/1023/text

²²⁵ Ministry of Ecology and Environment of the People's Republic of China (2019). *Forest Law of the People's Republic of China*. https://english.mee.gov.cn/Resources/laws/envir_elatedlaws/202102/t20210207_820735.shtml

²²⁶ World Economic Forum (2022). *China's Role Promoting Global Forest Governance and Combating Deforestation.* https://www3.weforum.org/docs/WEF_China%E2%80%99s_Role_Promoting_Global_Forest_Governance_and_Combating_Deforestation_2022.pdf

²²⁷ U.S. Department of State (2021). U.S.-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s. https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/

²²⁸ Mba (2021). *Congo Basin countries move toward a timber export ban*. https://www.spott.org/news/congo-basin-countriesmove-toward-a-timber-export-ban/

²²⁹ Mbodiam (2021). Cemac: In order to mature local processing projects, the ban on log exports is postponed to 2023. https://www.lenouveaugabon.com/fr/agro-bois/0308-17280-cemac-afin-de-maturer-les-projets-de-transformation-locale-linterdiction-d-exporter-les-grumes-reportee-en-2023

²³⁰ Environmental Investigation Agency (2019). *Toxic Trade: Forest crime in Gabon and the Republic of Congo and contamination of the US market*. http://opb-imgserve-production.s3-website-us-west-2.amazonaws.com/original/eia-__fullreport_1_-compressed_1553447882821.pdf.

²³¹ Greenfield, P., & Harvey, F. (2022, April 18). 'Lawless logging' in DRC raises concerns over \$500m forests deal signed by Boris Johnson. *The Guardian*. https://www.theguardian.com/environment/2022/apr/18/lawless-logging-in-drc-raises-concerns-over-500m-forests-deal-signed-by-boris-johnson-aoe.

²³² Pardal, A. (2018, June 26). DRC forests: Total Systems Failure. 9 September 2022,

https://www.globalwitness.org/en/campaigns/forests/total-systems-failure/.

²³³ Environmental Investigation Agency.(2019).

²³⁴ World Resources Institute. (2022). *Independent monitoring of forests in the Congo Basin: review and prospects.* https://files.wri.org/d8/s3fs-public/2022-

06/22_WP_Monitoring%20Congo%20Basin_franc%CC%A7ais.pdf?VersionId=T009A5HHbybcTOAvt6MezR6nsD60D1fl. . ²³⁵ Vallée, M., Vauthier, V., Moukouri, S., & Labaste, S. (2022). *Independent Forest Monitoring in the Congo Basin: Taking Stock and Thinking Ahead*. https://www.wri.org/research/independent-forest-monitoring-congo-basin-taking-stock-thinking-ahead.

²³⁶ Nguiffo, S., Mbzibain, A., Mohamed, H., Blanchard, H. (2021). The judge and the forest in Central Africa: why illegal logging persists and intensifies in the Congo Basin countries? https://cidt.org.uk/wp-content/uploads/2021/05/IWT-Briefing-Note-FR.pdf

²³⁷ Gabonese Republic. (2021). Gabon's Proposed National REDD+ Forest Reference Level.

https://redd.unfccc.int/files/gabon_frl_submitted_feb2021.pdf.

²³⁸ Democratic Republic of Congo. (2018). Forest Reference Emission Level for Reducing Emissions from Deforestation in the Democratic Republic of Congo. https://redd.unfccc.int/files/2018_frel_submission_drc.pdf.

²³⁹ Cerutti, P. O., Goetghebuer, T., Leszczynska, N., Newbery, J., Breyne, J., Dermawan, A., et al. (2020). *Collecting Evidence of FLEGT-VPA Impacts for Improved FLEGT Communication*. https://www.cifor.org/knowledge/publication/7566/.

²⁴⁰ NYDF. (2020). Goal 10 Assessment: Strengthening Governance and Empowering Communities.

https://forestdeclaration.org/wp-content/uploads/2021/08/2020NYDFGoal10.pdf.

²⁴¹ Democratic Republic of Congo. (2020). Guide Pour l'Exploitation Forestière Légale du Bois d'Oeuvre en RDC. https://medd.gouv.cd/wp-content/uploads/2020/06/GUIDE-POUR-EXPLOITATION-FORESTIERE-LEGALE-DU-BOIS-EN-RDC.pdf.

²⁴² IMM (n.d.) *Data Dashboard*. October 27, 2022. https://stats.flegtimm.eu/

²⁴³ Nyare Essima (2020). Identification of the modalities for resuming the FLEGT VPA negotiations between Gabon and the European Union. https://www.atibt.org/files/upload/news/Rapport_Relance_APV_FLEGT_au_Gabon-VF_02072020.pdf
²⁴⁴ VPA Africa-Latin America Facility (n.d.). Background: Gabon. 5 September 2022,

https://fleqtvpafacility.org/countries/gabon/background/.

²⁴⁵ VPA Africa-Latin America Facility (n.d.-d). Background: Gabon. 5 September 2022,

https://flegtvpafacility.org/countries/gabon/background/.

²⁴⁶ VPA Africa-Latin America Facility (n.d.-b). Background: Central African Republic. 5 September 2022,

https://flegtvpafacility.org/countries/central-african-republic/background/.

²⁴⁷ VPA Africa-Latin America Facility (n.d.-c). Background: Democratic Republic of the Congo. 5 September 2022,

https://flegtvpafacility.org/countries/democratic-republic-congo/background/.

²⁴⁸ VPA Africa-Latin America Facility (n.d.-d). Background: Gabon. 5 September 2022,

https://flegtvpafacility.org/countries/gabon/background/.

²⁴⁹ Nyare Essima (2020). Identification of the modalities for resuming the FLEGT VPA negotiations between Gabon and the European Union.

²⁵⁰ VPA Africa-Latin America Facility. Background: Republic of the Congo. 5 September 2022,

https://flegtvpafacility.org/countries/republic-congo/background/.

²⁵¹ Preferred by Nature. (2016). FLEGT workshop in Bata Equatorial Guinea. 5 September 2022,

https://preferredbynature.org/projects/flegt-workshop-bata-equatorial-guinea.

²⁵² Vallée, M. et al. (2022).

²⁵³ ForestLink. (n.d.). Technology. 28 September 2022, https://forestlink.org/fr/la-technologie/.

²⁵⁴ Moffette, F., Alix-Garcia, J., Shea, K., & Pickens, A. H. (2021). The impact of near-real-time deforestation alerts across the tropics. *Nature Climate Change*, *11*(2), 172-178. https://doi.org/10.1038/s41558-020-00956-w.

²⁵⁵ Republic of Cameroon, Ministry of Forests and Wildlife, Ministry of Environment, Nature Protection and Sustainable Development, UOSCF, & World Resources Institute. (2019). *2nd Quarter 2018 GLAD Alerts Bulletin*. http://wrisites.s3.amazonaws.com/forest-atlas.org/cmr.forest-

atlas.org/resources/bulletins/Bulletin%20suivi%20du%20couvert%20forestier%202%C3%A8me%20Trimestre.pdf. ²⁵⁶ Doumenge, C. et al. (Eds.). (2020).

²⁵⁷ EITI. (2021, October 21). Gabon rejoins EITI. 7 October 2022, https://eiti.org/fr/news/le-gabon-reintegre-litie.
 ²⁵⁸ Stevens, C. et al. (2014).

²⁵⁹ Veit, P. (2019). Land Matters: How Securing Community Land Rights Can Slow Climate Change and Accelerate the Sustainable Development Goals. https://www.wri.org/insights/land-matters-how-securing-community-land-rights-can-slowclimate-change-and-accelerate.

²⁶⁰ Wren-Lewis, L., Becerra-Valbuena, L., & Houngbedji, K. (2020). Formalizing land rights can reduce forest loss: Experimental evidence from Benin. *Science Advances*, 6(26), eabb6914. https://doi.org/10.1126/sciadv.abb6914.

²⁶¹ Rights and Resources Initiative. (2020). Estimated area of land and territories of Indigenous Peoples, local communities and Afro-descendants where their rights are not recognized. https://doi.org/10.53892/UZEZ6605.

²⁶² Evans, M. (2018, August 1). Rights in the DRC: What's getting in the way? 8 October 2022,

https://forestsnews.cifor.org/57316/rights-in-the-drc-whats-getting-in-the-way?fnl=en.

²⁶³ Nguiffo, S., Kenfack, P. É., & Mballa, N. (2009). The impact of historical and modern land laws on the land rights of local and indigenous communities in Cameroon.

http://www.forestpeoples.org/sites/fpp/files/publication/2010/05/cameroonlandrightsstudy09fr.pdf.

²⁶⁴ Nguema Ondo Obiang, S. (2009). *La problématique foncière au Gabon et la nécessité de son ouverture vers l'extérieur.* https://www.fig.net/resources/proceedings/fig_proceedings/fig2009/papers/ts04f/ts04f_nguemaondo_3484.pdf.

²⁶⁵ Rainforest Foundation UK. (2018). *Protected Areas and Community Rights: Using Local Maps to Support Sustainable Conservation in the Congo Basin*. https://www.mappingforrights.org/resource/protected-areas-and-community-rights-using-local-maps-to-support-sustainable-conservation-in-the-congo-basin/.

²⁶⁶ Yeung, P. (2021). The bold plan to save Africa's largest forest. *BBC*. https://www.bbc.com/future/article/20210107-congo-basin-a-bold-plan-to-save-africas-largest-rainforest.

²⁶⁷ IPACC. (n.d.). Who are the Indigenous Peoples of the Congo Basin. 8 October 2022, https://www.ipacc.org.za/congo-basin/.
 ²⁶⁸ Republic of Congo (2011). Law No. 5-2011 of February 25, 2011 on the promotion and protection of the rights of indigenous peoples. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=fr&p_isn=88187&p_country=COG&p_count=264.

²⁶⁹ Rights and Resources Initiative. (2022). DRC Senate adopts new law on the promotion and protection of the rights of the Indigenous pygmy peoples. 15 June 2022, https://rightsandresources.org/blog/drc-senate-adopts-new-law-on-the-promotion-and-protection-of-the-rights-of-the-indigenous-pygmy-peoples/.

²⁷⁰ Rights and Resources Initiative. (2022).

²⁷¹ Agir Ensemble pour les Droits Humains (2021). Press Release - Civil Society Victory in the DRC: Adoption of the Law on the Protection of Indigenous Pygmy Peoples and Launch of the PEOPLE Project. 1 September 2022, https://agir-ensemble-droits-humains.org/fr/communique-de-presse-victoire-de-la-societe-civile-en-rdc-adoption-de-la-loi-sur-la-protection-despeuples-autochtones-pygmees-et-lancement-du-projet-peuple/.

²⁷² Rainforest Foundation UK. (2014). *Rethinking Community Based Forest Management in the Congo Basin.*

https://www.rainforestfoundationuk.org/media.ashx/rethinking-community-based-forest-management-in-the-congo-basin-2014-english.pdf.

²⁷³ Guizol, P., Mbonayem, L., Awono, A., Djossi, D., Tabi, P., Ngobieng, M. A., et al. (2022). Land use planning and impacts on sustainable management of forest ecosystems in Central Africa. In *Forests of the Congo Basin: State of the Forests 2021.* https://www.cifor.org/publications/pdf_files/Books/Etat-des-forets-2021.pdf.

²⁷⁴ Guizol, P. et al. (2022).

²⁷⁵ Fern. (2017). Inclusive forest management in the Congo Basin: The role of community forestry in improving forest and climate governance.

https://www.fern.org/fileadmin/uploads/fern/Documents/Inclusive%20forest%20management%20in%20the%20Congo%20Ba sin-%20the%20role%20of%20community%20forestry.pdf.

²⁷⁶ Carneiro de Miranda, R., Sepp, S., Ceccon, E., & Owen, M. (2012). *Commercial Woodfuel Production: Experience from Three Locally Controlled Wood Production Models*. https://www.forestcarbonpartnership.org/sites/fcp/files/2015/March/FINAL-CommercialWoodfuel-KS12-12_Optimized.pdf.

²⁷⁷ Republic of Cameroon (1994).

²⁷⁸ Republic of Cameroon (1995). Decree No. 95/531/PM of August 23, 1995, establishing the modalities of application of the Forestry Regime. http://www.foretcommunale-cameroun.org/download/Decret95_531.pdf.

²⁷⁹ Republic of Cameroon (2001). Arrêté n°0518/MINEF/CAB du 21 Décembre 2001 Fixing the Modalities of Priority Allocation to Riverine Village Communities of Any Forest Likely to be Established as a Community Forest.

http://extwprlegs1.fao.org/docs/pdf/cmr195736.pdf.

²⁸⁰ Gabonese Republic. (2014a).

²⁸¹ Djinang, M., Ichou, B., & Faure, N. (2018). *Analysis of the legal framework for community forests in Gabon*.

https://www.clientearth.fr/media/qgcf3lwe/2018-03-01-analyse-du-cadre-juridique-relatif-aux-forets-communautaires-au-gabon-ce-fr.pdf.

²⁸² Ré Republic of éDemocraticDéDecree No. 14/018 of ûAugustémodalities for the 'allocation of forest concessions èto élocal communities. https://www.leganet.cd/Legislation/Droit%20economique/Code%20Forestier/D.14.018.02.08.2014.htm.
 ²⁸³ Ré Republic of éDemocratic

²⁸⁴ ATIBT. (2020, July 24). éRepublic of Congo : New Forestry Code Enactedé. 14 October 2022,

https://www.atibt.org/fr/news/12212/republique-du-congo-le-nouveau-code-forestier-promulgue.

²⁸⁵ Carneiro de Miranda, R., Sepp, S., Ceccon, E., & Owen, M. (2012). *Commercial Woodfuel Production: Experience from Three Locally Controlled Wood Production Models*. https://www.forestcarbonpartnership.org/sites/fcp/files/2015/March/FINAL-CommercialWoodfuel-KS12-12_Optimized.pdf.

²⁸⁶ CED, Fern, FPP, IIED, & Okani. (2017). Community forestry in Cameroon : A éopportunities.

https://www.forestpeoples.org/sites/default/files/documents/communityforestrycameroonFRE.pdf.

²⁸⁷ Guizol, P. et al. (2022).

²⁸⁸ CAFI. (n.d.). 'Support Program la réLand Reform è- DRCongo. 14 October 2022, https://www.cafi.org/fr/payspartenaires/democratic-republic-congo/drc-land-tenure-reform.

²⁸⁹ CONAREF. (n.d.). Missions and Objectives. 14 October 2022, https://www.conaref-rdc.org/secretariat-permanent/missionset-objectifs/.

²⁹⁰ Rights and Resources Initiative. (n.d.). National Workshop on the Participation of éNetworks étSociety Civil ReformLand èin the é Republic of éDemocratic

²⁹¹ CARPE. (2003). CARPE Program 2003-2010. https://pdf.usaid.gov/pdf_docs/Pdaca759.pdf.

²⁹² USAID & CARPE. (2012). Regional Development Cooperation Strategy 2012-2020.

https://carpe.umd.edu/sites/default/files/Documents/2011/CARPE_RDCS_PublicVersion.pdf.

 ²⁹³ Malungu, A. (2019, March 26). Congo Basin : êForestée to l'éfailure without écommunity14 October 2022, https://infocongo.org/fr/bassin-du-congo-la-gestion-des-forets-vouee-a-lechec-sans-la-participation-des-communautes/.
 ²⁹⁴ World Bank & CARITAS. (2016). DRC National REDD+ Fund: Towards Mobilizing Climate Finance for éSustainable Development in . https://www.cafi.org/sites/default/files/2021-02/DRC-WorldBank-Gestion%20Durable%20Pygmees%20-Prodoc%20Final_Novembre%202016_0.pdf.

²⁹⁵ Project ' Support é CommunitiesDependentForest ê(FDSP). (n.d.). Home. 1 September 2022, http://peuplesautochtones.cd/.

²⁹⁶ Bäckstrandä, K., Kuyper, J. W., Linnéré, B.-O., & Lövbrandö, E. (2017). Non-state actors in global climate governance: from Copenhagen to Paris and beyond. *Environmental Politics*, *26*(4), 561-579–. https://doi.org/10.1080/09644016.2017.1327485.
 ²⁹⁷ Nath, T. K., Khan, N. A., Kibria, A. S., & Goodale, U. M. (2022). Non-state Actors in Forest Governance: Genesis, Status, Challenges and Way Forward. *Journal of Sustainable Forestry*, *0*(0), 1-17–. https://doi.org/10.1080/10549811.2022.2128377.
 ²⁹⁸ Forest Carbon Partnership & BioCarbon Fund. (2020). *Intélntegrating the Private Sector éinto és sur les RéResults-BasedèEarly çLessons from the World Bank êForest and Landscape*. https://biocarbonfund-isfl.org/sites/isfl/files/2020-04/116412FR.pdf.

²⁹⁹ Cuny, P. (2011). Current status of community and communal forestry in Cameroon.

http://bibalex.org/baifa/Attachment/Documents/442092.pdf.

³⁰⁰ ClientEarth (2021). éRepublic of Congo étSociety Civil éEvaluates éForestry Code Reform. 14 October 2022,

https://www.clientearth.fr/actualites/articles/en-republique-du-congo-la-societe-civile-evalue-la-reforme-du-code-forestier/. ³⁰¹ FAO & CIFOR. (2016). *Inclusive êforest'Central Africa: Moving from participation to power sharing* (G. Buttoud & J.-C.

Nguinguiri, Eds.). https://www.cifor.org/publications/pdf_files/Books/FAO-CIFOR_Book.pdf.

³⁰² RéGabonese Republic. (2014b). *Loi n°007/2014 Relative à la Protection de l'Environnement en éRépublique Gabonaise*. http://extwprlegs1.fao.org/docs/pdf/Gab174571.pdf.

³⁰³ African Commission on 'Human and Peoples' *Report of the African Commission's Working Group on éIndigenous* 'Information éRepublic of Gabon. https://www.iwgia.org/images/publications/ACHPR_Gabon_FRE.pdf.

³⁰⁴ RéGabonese Republic & UNFPA. (2017). *Rapport énéGénéral sur la Situation de la Femme Gabonaise*. https://gabon.unfpa.org/sites/default/files/pub-pdf/Rapport%20d%C3%A9cennie%20de%20la%20femme-version%20finale%201.pdf.

³⁰⁵ Rights and Resources Initiative. (2022).

³⁰⁶ IUCN. (2022).

³⁰⁷ ClientEarth. (2020). How the Republic of Congo's new forest law can help preserve world's 'second lung'. 21 September 2022, https://www.clientearth.org/latest/latest-updates/news/how-the-republic-of-congo-s-new-forest-law-can-help-preserve-world-s-second-lung/.

³⁰⁸ Chatham House (2021). Forest Voices: 'The new Forest Code is a law to be proud of.' 22 September 2022,

https://forestgovernance.chathamhouse.org/publications/forest-voices-the-new-forest-code-is-a-law-to-be-proud-of. ³⁰⁹ RéRepublic of Congo (2020, July 8).

³¹⁰ Rainforest Foundation UK. (2021). Community Forestry in DRC is a Solution to Tackle Both Poverty and Climate Change: That's Why it Needs to be in Focus at COP26. 22 September 2022, https://fr.rainforestfoundationuk.org/community-forestrydrc-is-a-solution.

³¹¹ Rainforest Foundation UK. (2021).

³¹² FédéAtlantic Federation of African Press Agencies (FAAPA). (2020, December 11). étéCongo Basin Civil Society for the Enhancement of éDeterminedéNationally 5 September 2022, http://www.faapa.info/blog/la-societe-civile-du-bassin-ducongo-pour-le-rehaussement-des-contributions-determinees-au-niveau-national-sur-le-changement-climatique/. ³¹³ Field Legality Advisory Group (FLAG). (n.d.). Home. 5 September 2022, http://flag-cmr.org/index.php. ³¹⁴ Forest Partnership êCongo Basin èStandardized é d'Observation éExternal èsystem ' observation é independentcertifiedfor resource management. 5 September 2022, https://archive.pfbc-cbfp.org/actualites/items/SNOIE-FODER.html.

³¹⁵ Center for 'Environment and éDevelopment (CED). (2022, May 23). Forestsê. 5 September 2022,

https://cedcameroun.org/?page_id=244115.

³¹⁶ LandCam (n.d.). Home. 28 September 2022, https://www.landcam.org/en.

³¹⁷ Comptoir Juridique Junior (CJJ). (n.d.). Natural Resource Governance. 5 September 2022,

https://cjjcongo.org/index.php/gouvernance-des-ressources-naturelles/.

³¹⁸ Ibara, F. (2022, July 5). étsocietyCivil : more than sixty-five organizations trained ées àin 'épublic policy evaluation | adiaccongo.com : toute l'actualitactualité du Bassin du Congo. 5 September 2022, https://www.adiac-congo.com/content/societecivile-plus-de-soixante-cinq-organisations-formees-levaluation-des-politiques.

³¹⁹ Forest Governance Observatory è(FGO). (n.d.). éMethod of 'Approach and éStrategy. 5 September 2022,

https://ogfrdc.cd/methode-dapproche-et-strategie/.

³²⁰ Renewed REDD+ Climate Task Force énové(R

³²¹ Guillaume, E. (2019). *Community forestry: Opportunity or mirage for women in the Congo Basin?* https://www.fern.org/fileadmin/uploads/fern/user_upload/FC_-

_opportunite%CC%81_ou_chime%CC%80re_femmes_Bassin_du_Congo_fe%CC%81vrier_2019.pdf.

³²² Chatham House (n.d.-a). Forest Policy Assessment: Cameroon (p. 29).

https://forestgovernance.chathamhouse.org/media/data-download/Forest-Policy-Assessment-Cameroon.pdf.

³²³ RéRepublic of Congo. (2015). *Congo, Brazzaville: Constitution 2015.*

https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100814/121082/F1693068911/COG-100814.pdf.

³²⁴ Chatham House (n.d.-c). Forest Policy Assessment: The Republic of Congo (p. 32).

https://forestgovernance.chathamhouse.org/media/data-download/Forest-Policy-Assessment-RoC.pdf.

³²⁵ Chatham House (n.d.-b). Forest Policy Assessment: Democratic Republic of Congo (p. 6).

https://forestgovernance.chathamhouse.org/media/data-download/Forest-Policy-Assessment-DRC.pdf.

³²⁶ Ré Republic of éDemocraticArrêOrder éMinisterial ériel nNo. 004/CAB/MIN/ECN-T/012 of February 15, 2012, establishing the éprocedure 'approval . êté-ministériel-n-004-cab-min-ecn-t-012-du-15-fevrier-2012-fixant-la-

procéhttps://www.clientearth.fr/actualites/ressources/arrêté-ministériel-n-004-cab-min-ecn-t-012-du-15-fevrier-2012-fixant-laprocédure-d-homologation-des-projets-redd/.

³²⁷ Majambu, E., Mampeta Wabasa, S., Welepele Elatre, C., Boutinot, L., & Ongolo, S. (2019). Can Traditional Authority Improve the Governance of Forestland and Sustainability? Case Study from the Congo (DRC). *Land*, 8(5), 74.

https://doi.org/10.3390/land8050074.

³²⁸ Chatham House (n.d.-a).

³²⁹ Chatham House (n.d.-b).

³³⁰ Chatham House (n.d.-c).

³³¹ Comptoir Juridique Junior (CJJ) & ClientEarth. (n.d.). *Community-Based Forest Management: Legal Frameworks in Five Congo Basin Countries* (p. 16). https://www.clientearth.org/media/gcnholdx/community-based-forest-management-legal-frameworks-in-five-congo-basin-countries-ce-en.pdf.

³³² Dummett, C., & Blundell, A. (2021).

³³³ Dummett, C., & Blundell, A. (2021).

³³⁴ Ordway, E. M. et al. (2017).

³³⁵ Lescuyer, G. et al. (2021).

³³⁶ Austin, K. G., Heilmayr, R., Benedict, J., & Burns, D. (2021). Mapping and Monitoring ZeroDeforestation Commitments. *BioScience*, 71, 1079-1090–. https://doi.org/10.1093/biosci/biab082. ³³⁷ Lescuyer, G. et al. (2021).

³³⁸ Garrett, R. D., Levy, S. A., Carlson, K. M., Gardner, T. A., Godar, J., Clapp, J., et al. (2018). Criteria for effective zero-deforestation commitments. *Global Environmental Change*, 54. https://doi.org/10.1016/j.gloenvcha.2018.11.003.

³³⁹ Umunay, P. M. (2017). Understanding 'Deforestation-Free' Commitments in the Central African Context (p. 31).

https://www.researchgate.net/publication/323238116_Understanding_deforestation-

free_commitments_in_the_context_of_Central_Africa.

³⁴⁰ Lambin, E. F. et al. (2018).

³⁴¹ Lambin, E. F. et al. (2018).

³⁴² Tropical Forest Alliance. (2017). *Tropical Forest Alliance 2020 Annual Report 2016-2017*.

https://www.tropicalforestalliance.org/assets/Uploads/TFA_Annual_Report_2017_v8.1_Web-Report-Small.compressed.pdf.

³⁴³ Lambin, E. F. et al. (2018).

³⁴⁴ Lambin, E. F. et al. (2018).

³⁴⁵ Taylor, R., & Streck, C. (2018). The Elusive Impact of the Deforestation-Free Supply Chain Movement.

https://files.wri.org/d8/s3 fs-public/ending-tropical-deforestation-supply-chain-movement.pdf.

³⁴⁶ Grabs, J., Cammelli, F., Levy, S. A., & Garrett, R. D. (2021). Designing effective and equitable zero-deforestation supply chain policies. *Global Environmental Change*, 70(102357). https://doi.org/10.1016/j.gloenvcha.2021.102357.

³⁴⁷ Pirard, R. (2021). Promoting sustainable value chains in the Congo Basin: An analysis and set of recommendations based on three case studies in producing and importing countries. https://pfbc-cbfp.org/key-documents-

CBFP.html?file=files/docs/key_docs/Publications%20du%20PFBC/2021_CBFP_sustainable%20value%20chains%20in%20the% 20Congo%20Basin_Report.pdf&cid=6712.

³⁴⁸ Lambin, E. F. et al. (2018).

³⁴⁹ Lescuyer, G. et al. (2022).

³⁵⁰ Ordway, E. M. et al. (2019).

³⁵¹ Pirard, R. (2021).

³⁵² Ordway, E. M. et al. (2019).

³⁵³ Pirard, R. (2021).

³⁵⁴ Pirard, R. (2021).

³⁵⁵ Pirard, R. (2021).

³⁵⁶ Pirard, R. (2021).

³⁵⁷ Muyissi Environment & World Rainforest Movement (WRM). (2020). *Communities facing zero-deforestation pledges: The Case of Olam in Gabon*. https://www.wrm.org.uy//wp-content/uploads/2020/03/Communities-facing-Zero-Deforestation-pledges-case-Olam-Gabon.pdf.

³⁵⁸ Fair, J. (2020, August 7). Probe begins into alleged deforestation by Olam, 'world's largest farmer'. 8 October 2022, https://news.mongabay.com/2020/08/probe-begins-into-alleged-deforestation-by-olam-worlds-largest-farmer/.
 ³⁵⁹ Lescuyer, G. et al. (2021).

³⁶⁰ Lambin, E. F., Gibbs, H. K., Heilmayr, R., Carlson, K. M., Fleck, L. C., Garrett, R. D., et al. (2018). The role of supply-chain initiatives in reducing deforestation. *Nature Climate Change*, 8(2), 109-116–. https://doi.org/10.1038/s41558-017-0061-1.
 ³⁶¹ Cargill (n.d.). Protecting Forests and Native Vegetation: Transforming supply chains to be deforestation- and conversion-

free. 10 October 2022, https://www.cargill.com/sustainability/protecting-forests.

³⁶² United Nations. (2022). Reflecting on sustainability standards: Trade and the sustainability crisis.

https://unctad.org/system/files/official-document/ditctab2022d4_en.pdf.

³⁶³ Lescuyer, G. et al. (2021).

³⁶⁴ Lescuyer, G. et al. (2021).

³⁶⁵ Forest Stewardship Council. (n.d.). Congo Basin Sub-region. 10 October 2022, https://africa.fsc.org/en-cd/sub-regions/sub-region-congo-basin.

³⁶⁶ Wolff, S., & Schweinle, J. (2022).

³⁶⁷ Panlasigui, S., Rico-Straffon, J., Pfaff, A., Swenson, J., & Loucks, C. (2018). Impacts of certification, uncertified concessions, and protected areas on forest loss in Cameroon, 2000 to 2013. *Biological Conservation*, *227*, 160-166–. https://doi.org/10.1016/j.biocon.2018.09.013.

³⁶⁸ Rico-Straffon, J., Panlasigui, S., Loucks, C., Swenson, J., & Pfaff, A. (2018). Logging Concessions, Certification & Protected Areas in the Peruvian Amazon: Forest Impacts from Combinations of Development Rights & Land-use Restrictions. https://www.researchgate.net/publication/330184358_Logging_Concessions_Certification_Protected_Areas_in_the_Peruvian_ Amazon_Forest_Impacts_from_Combinations_of_Development_Rights_Land-use_Restrictions.

³⁶⁹ Blackman, A., Goff, L., & Rivera Planter, M. (2018). Does eco-certification stem tropical deforestation? Forest Stewardship Council certification in Mexico. *Journal of Environmental Economics and Management*, *89*, 306-333–. https://doi.org/10.1016/i.jeem.2018.04.005.

³⁷⁰ Tritsch, I., Le Velly, G., Mertens, B., Meyfroidt, P., Sannier, C., Makak, J.-S., et al. (2020). Do forest-management plans and FSC certification help avoid deforestation in the Congo Basin? *Ecological Economics*, *175*, 106660.

https://doi.org/10.1016/j.ecolecon.2020.106660.

³⁷¹ Heilmayr, R., & Lambin, E. F. (2016). Impacts of nonstate, market-driven governance on Chilean forests. *Proceedings of the National Academy of Sciences*, *113*(11), 2910-2915–. https://doi.org/10.1073/pnas.1600394113.

³⁷² Miteva, D. A., Loucks, C. J., & Pattanayak, S. K. (2015). Social and Environmental Impacts of Forest Management Certification in Indonesia. *PLOS ONE*, *10*(7), e0129675. https://doi.org/10.1371/journal.pone.0129675.

³⁷³ Rana, P., & Sills, E. (2018).

³⁷⁴ Wolff, S., & Schweinle, J. (2022).

³⁷⁵ Marx, A., Sharma, A., & Bécaulté, E. (2015). Voluntary Sustainability Standards: An Overview.

https://doi.org/10.13140/RG.2.2.26794.52164.

³⁷⁶ Marx, A. et al. (2015).

³⁷⁷ Taylor, R., & Streck, C. (2018).

³⁷⁸ Taylor, R., & Streck, C. (2018).

³⁷⁹ Forest Stewardship Council. (2020, February 18). FSC in Gabon: Starting the Journey Towards 100% Certification. 3 August 2022, https://fsc.org/en/newsfeed/fsc-in-gabon-starting-the-journey-towards-100-certification.

³⁸⁰ World Wide Fund (WWF). (2018). WWF Welcomes éGabonese Government's Decision to 'Require FSC Certification for All Forest Concessions ères d'by 2022. 14 October 2022, https://wwf.panda.org/wwf_news/?336470/WWF-salue-la-decision-du-gouvernement-gabonais-dexiger-la-certification-FSC-pour-toutes-les-concessions-forestieres-dici-2022.

³⁸¹ Pirard, R. (2021).

³⁸² Pirard, R. (2021).

³⁸³ Pirard, R. (2021).

³⁸⁴ Pirard, R. (2021).

³⁸⁵ Forest Declaration Assessment Partners (2022). Finance for forests: Theme 3 assessment. *Forest Declaration Assessment: Are we on track for 2030?* Climate Focus (coordinator and editor). www.forestdeclaration.org.

³⁸⁶ Sufo Kankeu, R., Itsoua Madzous, G., Loh Chia, E., Medjibe, V., Langevin, C., Ouarzazi, L., et al (2022). International commitments of to Central African éresponse *The êForests of the Congo Basin : ÉState of the Forests ê2021*.

https://www.cifor.org/publications/pdf_files/Books/Etat-des-forets-2021.pdf.

³⁸⁷ Forest Declaration Assessment Partners (2022). Finance for forests: Theme 3 assessment. *Forest Declaration Assessment: Are we on track for 2030?* Climate Focus (coordinator and editor). www.forestdeclaration.org. ³⁸⁸ Tan, J. (2021, August 18). Gabon becomes first country in 'Africa to êbe paid to éprotect its êforests. 14 October 2022, https://fr.mongabay.com/2021/08/le-gabon-devient-le-premier-pays-dafrique-a-etre-paye-pour-proteger-ses-forets/.
 ³⁸⁹ Okapi Conservation Fund. (n.d.). Home. 14 October 2022, https://fonds-okapi-rdc.org/.

³⁹⁰ Mudiayi, A. (2021). DRC: Kahuzi-Biega Park and Garamba Park to énéBenefit from a €from the Okapi Fund 'by 2022. 14 October 2022, https://desknature.com/2021/06/29/rdc-le-parc-de-kahuzi-biega-et-celui-de-garamba-vont-beneficier-au-totalplus-de-20meu.

³⁹¹ Ngounou, B. (2022, July 19). GABON: Jeff Bezos grants 35 million dollars for forest preservation. Afrik 21.

https://www.afrik21.africa/en/gabon-jeff-bezos-grants-35-million-dollars-for-forest-preservation/.

³⁹² White, L. J. T., Masudi, E. B., Ndongo, J. D., Matondo, R., Soudan-Nonault, A., Ngomanda, A., et al. (2021). Congo Basin rainforest - invest US\$150 million in science. *Nature*, *598*(7881), 411-414–. https://doi.org/10.1038/d41586-021-02818-7.
 ³⁹³ Ngounou, B. (2021, December 21). CONGO BASIN: more than \$3 billion announced at COP 26 to protect the forest. 14 October 2022, https://www.afrik21.africa/en/congo-basin-more-than-3-billion-announced-at-cop-26-to-protect-the-forest/.

October 2022, https://www.afrik21.africa/en/congo-basin-more-than-3-billion-announced-at-cop-26-to-protec ³⁹⁴ RéRepublic of Cameroon (2021).

³⁹⁵ RéGabonese Republic. (2022).

³⁹⁶ Ré Republic éDemocratic

³⁹⁷ RéRepublic of Congo (2021).

³⁹⁸ Eba'a Atyi, R., Liboum, M., Guizol, P., Awono, A., Jungers, Q., Pokem, D., et al. (2019). *Policy Brief No. 3: International financial flows to support nature protection and sustainable forest management in Central Africa*. https://www.observatoire-comifac.net/docs/policy_brief/OFAC-Brief-03-en-web.pdf.

³⁹⁹ Central African Forest Initiative (CAFI). (2021). CAFI Trust Fund 2021 Consolidated Annual Report.

https://mptf.undp.org/sites/default/files/documents/CAFI%202021%20Consolidated%20Annual%20Report.pdf. ⁴⁰⁰ Eba'a Atyi, R. et al. (2019).

⁴⁰¹ Pirker, J., & Carodenuto, S. (2021).

⁴⁰² Eba'a Atyi, R. et al. (2019).

⁴⁰³ African Development Bank. (2018). *Independent Evaluation of the Congo Basin Forest Fund - Summary report.* https://www.oecd.org/derec/afdb/AfDB-2018-Congo-Basin-Forest-Fund.pdf.

⁴⁰⁴ World Resources Institute & Climate Focus. (2022). *Sink or swim: How Indigenous and community lands can make or break nationally determined contributions* (p. 22). https://forestdeclaration.org/resources/sink-or-swim/.

⁴⁰⁵ Kengoum Djiegni, F., Thu, P., et al. (2020).

⁴⁰⁶ Kengoum Djiegni, F., Thu, P., et al. (2020).

⁴⁰⁷ Sutherland, L. (2022, April 25). Funding, titling project for Indigenous-led organizations launched. 14 October 2022, https://news.mongabay.com/2022/04/funding-titling-project-for-indigenous-led-organizations-launched/.

⁴⁰⁸ Tenure Facility (n.d.). Securing Land and Forest Rights of Local Communities and Indigenous Peoples in the DRC. 14 October 2022, https://thetenurefacility.org/projects/securing-land-and-forest-rights-of-local-communities-and-indigenouspeoples-in-the-drc/.

⁴⁰⁹ Pirker, J., & Carodenuto, S. (2021).

⁴¹⁰ RéRepublic of Cameroon (2021).

⁴¹¹ RéGabonese Republic. (2020). *Law n°019/2020 of July 17, 2020 on the rectifying finance law for 2020*. https://www.droitafrique.com/uploads/Gabon-LF-2020-rectificative.pdf.

⁴¹² Karsenty, A. (2021). Fiscal and nonfiscal incentives for sustainable êforestèlessons learned éfrom 'écase studies éin éBrazil, Cambodia, Congo, ôCôte d'Ivoire, Myanmar, éPeru, iThailand and Viet Nam.

https://www.itto.int/direct/topics_pdf_download/topics_id=6682&no=1&_lang=fr&disp=inline.

⁴¹³ RéRepublic of Congo (2020, July 8).

⁴¹⁴ Hoare, A., & Uehara, T. K. (2022, March 21). Forest sector revenues in Ghana, Liberia and the Republic of the Congo. 30 June 2022, https://www.chathamhouse.org/2022/03/forest-sector-revenues-ghana-liberia-and-republic-congo.

⁴¹⁵ Hoare, A., & Uehara, T. K. (2022, March 21).

⁴¹⁶ Bravo, F., & Mikolajczyk, S. (n.d.). The Voluntary Carbon Market Dashboard. 14 October 2022,

https://climatefocus.com/initiatives/voluntary-carbon-market-dashboard/.

⁴¹⁷ Verra. (n.d.). Welcome to the Verra Registry. 14 October 2022, https://registry.verra.org/.

⁴¹⁸ European Forest Institute & Proforest (2014). Working with the private sector on REDD+.

https://unfccc.int/sites/default/files/redd_20150619_working_with_the_private_sector_on_redd%2B.pdf. ⁴¹⁹ Doumenge, C. et al. (Eds.). (2020).

⁴²⁰ Forest Carbon Partnership Facility (2021). https://www.wildlifeworks.com/dr-congo

⁴²¹ Berk, N. & Lungungu, P. (2020).

⁴²² CAFI. (2021). CAFI 2021 Annual report. https://www.cafi.org/sites/default/files/2022-

10/CAFI%202021%20Consolidated%20Annual%20Report.pdf

⁴²³ Verra. (n.d.).⁴²³ OFAC (2022), State of the Forest 2021 (p.30).

⁴²³ Chatham House. Forest Governance and Legality Methodology.

https://forestgovernance.chathamhouse.org/methodology



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