Can REDD+ finance compete with established and emerging land investments?  
The case of Mai-Ndombe, Democratic Republic of Congo

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Key Messages

- We examine whether REDD+ finance can lead to transformative forest and land-use decisions in a complex political landscape of competing land uses, interests and financial flows in Mai-Ndombe, Democratic Republic of Congo (DRC).
- We use a telecoupling framing – which looks at socioeconomic and environmental interactions over distances – delving into open-source information and databases on company ownership and structures, and combining these with search strategies that capture flows of finance and commodities into the Mai-Ndombe region.
- REDD+ aims to bring transformational change through incentivizing a shift in the political and economic value of forests, when compared to other land uses. Our study demonstrates that, in Mai-Ndombe, these incentives have limited influence in the presence of dominant interests and investments in extractive activities; particularly when mining, livestock, timber and carbon concessions overlap, and oil exploration permits are in use by state and private sector actors.
- REDD+ strategies in the DRC inadvertently reinforce historical inequalities by focusing on local interventions; this overlooks the persistent power relations that are visible in discursive practices, financial flows and incentive structures centring around extractive land uses.
- We encourage funders, policymakers and researchers at the intersection of climate and forests to avoid oversimplified narratives of who is to blame for deforestation, and instead trace the financial flows, asking who benefits from forest exploitation and land-use change in the Global South.

Introduction

Climate finance is considered an important avenue of transformational change to shift away from deforestation and the unsustainable exploitation of forests and forest lands. Finance for forest-based climate change adaptation and mitigation is, however, not the only financial flow affecting forests and land use; such landscapes are often impacted by a multitude of actors and pre-established interests, in the Global South and North alike. Particularly in the Global South, these interests – along with their corresponding flows of finance – are often linked to commodity production and conservation practices for a global market, and exist within institutional environments shaped by colonial legacies (Peluso and Vandergeest 2020; Brockhaus et al. 2021). Evidence from across the Global South has shown that local communities – together with their interests, and forest and land-use practices – are often lost within the politics of business-as-usual interests (Wong et al. 2022).

REDD+ – short for “reducing emissions from deforestation and forest degradation, and fostering conservation, sustainable management of forests, and enhancement of forest carbon stocks” – is a funding mechanism that has been piloted since 2006 under the United Nations Convention on Climate Change (UNFCCC). REDD+ was initially envisioned as a global ‘payment for environmental services’ scheme, with countries in the Global North paying forest-rich countries in the South to keep their trees and forests standing. The underlying expectation was that REDD+ incentives would transform the business-as-usual practices causing deforestation and forest degradation, by changing the value of forests in relation to other land uses, and by putting in place policies and monitoring systems. Besides shifting incentive structures, existing discursive practices and power relations were also expected to change, following the introduction of REDD+ and related commitments to halt deforestation from countries and private sector actors. This was hoped to lead to what Brockhaus and Angelsen (2012) called transformational change towards more sustainable and just forest land use in the Global South.

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Here, we examine if and how REDD+ finance can lead to transformative forest and land-use decisions within a complex landscape of competing land uses, interests and financial flows. We use telecoupling as an analytical framework combined with open-source research methods. The case study focuses on the Democratic Republic of Congo (DRC), where the province of Mai-Ndombe has been a pilot site for implementing DRC’s national REDD+ strategy since 2010. Despite a loss of 61,600 ha of ‘natural forest’ (the size of the city of Manila) since implementation began (2010–2022) – and what appears to be a net acceleration of forest cover loss with an average of 0.21% total cover lost during 2001–2009 and an average of 0.49% over 2010–2022 (Global Forest Watch) – the province is still expected to provide a model for green development in the Congo Basin.

REDD+ receives financing from multiple sources, including the World Bank Forest Investment Program (FIP), Central African Forest Initiative (CAFI), Forest Carbon Partnership Facility (FCPF), multiple donors within these organisations, and other private sector sources (Reyniers 2018). Our analysis unpacks how REDD+ finance is situated in Mai-Ndombe alongside other existing funding and interests, and whether incentive structures with their underlying discursive structures and power relations can lead to transformational change. We ask, is climate finance able to make a difference in a landscape that is organised by persistent historic structures and competing, well-funded interests?

**Methodology**

A telecoupling framing is used to explore distant flows of finance and commodities. Telecoupling helps to visualize the distant effects of local actions (Chan et al. 2020), like whether policies that support the financing of climate projects at a global scale could affect forest and land-use activities at a local scale. However, telecoupling research has primarily relied on quantitative modelling data to analyse distal flows of materials (Friis and Nielsen 2019) and there is a need for critical qualitative engagement to improve the empirical application of telecoupling frameworks in case study research (Friis et al. 2016). Few studies have used telecoupling to investigate the implications for local land-use change, capturing empirical place-based and site-specific factors alongside the qualitative analysis needed to examine the participation and recognition issues that impact upon environmental decision-making (Friis and Nielsen 2017; Corbera et al. 2019).

In this desk study, we combined a telecoupling analytical framework with open-source research methods, which involves the use of information publicly available on the internet (Murray et al. 2022). We drew from several online databases to explore forest and land-use activities and financial flows to Mai-Ndombe (see Figure 1 for data collection process). We first began with the MOABI database to identify the different land-use activities in Mai-Ndombe. We then linked these land-use activities with information on land deals, listed on Land Matrix, Interactive Forest Atlas and Open Land Contracts. Next, we identified the operating companies behind these land deals, and searched for them on ORBIS and Open Corporates to determine the company ownership, structure and country of origin. The tracking of company ownership, with its shareholders and subsidiaries, was then complemented by a search of open-source information, for example in policy documents, company and NGO reports, journal articles, new and traditional media. As different levels of reliability can be expected from different forms of open-source evidence, we addressed data limitations by triangulating results with reputable sources, such as NGO reports and journalistic news articles, which is often done in investigative research (McConnell and Smith 2018; Murray et al. 2022).

There were also limitations when it came to these particular data sources. The MOABI database tracks forest concession agreements registered as of 2016, which is the most recent update from Open Land Contracts. Land Matrix includes deals of 200 hectares (ha) or more, concluded from the year 2000 onwards. The ORBIS database delivered few results for companies in the DRC, possibly due to general issues related to coverage of countries beyond UK, Netherlands and other well-reported European countries, with a possible bias in favour of top performers and multinationals, rather than underperforming firms (Bjarga et al. 2020). Nonetheless, we sought to overcome these limitations by conducting English and French keyword searches in Google for companies operating in Mai-Ndombe. These data limitations reflect common challenges in conducting desktop research, due to general trends of data scarcity, data inaccessibility and lack of monitoring in the region.

![Figure 1. Data collection process](image-url)
We then integrated a material perspective to our analysis of climate and land-related financial flows, by looking at (potential) suppliers, receivers and facilitators of timber and (potentially) carbon commodity flows. To collect data around timber export volumes for 2022, we relied on data provided by the so-called phytosanitary certificates of the Congolese authorities (Direction Générale des Forêts). These certificates are required for every timber export, and attest that consignments meet phytosanitary import requirements, as set by the International Plant Protection Convention (IPPC).

**Results**

**REDD+ is big**

The entire province of Mai-Ndombe – spanning 12.3 million ha, of which 9.8 million ha are forested – makes up the site of the REDD+ Emissions Reduction Programme (ERP). The ERP is the first large-scale REDD+ programme in the Congo Basin, and the largest forest landscape conservation project ever in Africa. It was set out as a provincial-level model for green development, promising to offer local communities incentives to maintain and manage their forests (FCPF 2016). The programme is funded by the World Bank’s Forest Carbon Partnership Facility (FCPF). Within the region, other REDD+ projects cover more than 3.5 million ha (own calculation, based on data from the World Bank, FCPF and CAFI), including REDD+ projects operated by the national branches of WWF and the US-based ERA Ecosystem Services.

REDD+ development in the DRC largely depends on international funding, mainly from the FCPF, the Forest Investment Program (FIP) and the Central African Forest Initiative (CAFI). FCPF is a global partnership of governments, businesses, civil society and Indigenous Peoples’ organizations focused on REDD+; in terms of funds, it consists of the REDD+ Readiness Fund and the Carbon Fund. The FIP was established by the World Bank in 2009 to support sustainable forest management and reforestation activities, in line with REDD+ objectives. CAFI is a trust fund with financing from a group of bilateral and multilateral donors; it supports through direct investments into REDD+ sites in Central Africa (see Figure 2). According to CAFI’s website, it also aims to operate as a political negotiation platform that “drives policy dialogue” in the operating countries.

According to our analysis of REDD+ project documents – available from the Government of DRC (2015), the World Bank (2016) and FCPF (2020) – deforestation in Mai-Ndombe is primarily driven by local people who are practising ‘slash-and-burn’ agriculture, artisanal logging and fuelwood collection, and who are responsible for population growth and migration. This problematization of local populations and livelihood activities has led to REDD+ finance being mainly targeted at local interventions, like improved food production, increased access to family planning, and improved access to sustainable cooking energy. Financiers have invested significant amounts of money in incentives geared towards local populations, based on the presumption that it will lead them to stop activities identified as deforestation drivers. It is still up for discussion whether this analysis of deforestation drivers accurately captures local reality (Diaw and Franks 2019; Kengoum et al. 2020), particularly when this ignores larger institutional and political contexts (Mpoi et al. 2013; Samndong et al. 2018) and obscures the complexities of land use, and power struggles over resources (Windey and Van Hecken 2019).

The Mai-Ndombe ERP was funded through USD 80 million of up-front investment from the World Bank’s FCPF Carbon Fund (FCPF 2016). FIP invested USD 14.2 million to The Plateau Integrated REDD+ Program (PIREDD Plateau), a programme that covers the Plateau district, while CAFI funded the PIREDD Mai-Ndombe, a programme that extends over the rest of the province, with USD 30 million (World Bank 2016; Gauthier 2018; FCPF 2021). These financiers receive funds from donor governments, as listed in Table 1.

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Source: Authors own data, based on data collected from the websites of Forest Carbon Partnership, Climate Funds Update and Central African Forest Initiative.
Other competing interests are bigger
Although Mai-Ndombe is a model site for REDD+ in the DRC, various economic land-use activities and conflicting goals overlap in this area, including logging, mining, agriculture, cattle concessions and oil exploration permits (Figure 2).

A report from MOABI (2016) analysed land-use data from Congolese ministries and NGOs between 2013 and 2015. This report found that of the 42 industrial logging concessions in the DRC, 24 overlapped with REDD+ projects and initiatives. In Mai-Ndombe, industrial logging concessions cover a total of 1.69 million ha; an additional 2.1 million ha have recently been converted from logging to carbon concessions (own calculation, based on data published by MEDD (the Ministry of Environment and Sustainable Development) in 2023). According to Omasombo Tshonda (2019), some of these logging concessions overlap with the climate critical Cuvette Centrale, the largest contiguous wetlands ecosystem in Africa. The province also has 23 community forest concessions, totalling 469,797 ha; these partially overlap with industrial logging concessions (Community Forest Database 2023).

Six mining permits were found in Mai-Ndombe. All permits belong to the KWANGO Mines SPRL company, which is owned by members of the former President Kabila’s family (Congo Research Group 2017). In total, these mining permits cover 82,800 ha.

Nearly all forests in the DRC are overlapped by oil exploration permits, including the entire province of Mai-Ndombe (MOABI 2016; World Resources Institute 2023). This overlap includes not only REDD+ areas but also conservation sites, including the Tumba-Ledima Nature Reserve, and the Salonga National Park, which is a World Heritage Site and the largest protected tropical rainforest in Africa (Global Witness 2018; World Resources Institute 2023). Although we note the existence of conservation sites in the province, we do not include these in our analysis as they already align with REDD+’s overarching goal of preserving trees. However, we should be conscious that conservation areas may overlap with local communities’ land-use needs.

Oil exploration permits in Mai-Ndombe belong to COMICO-SONAHYDROC (Compagnie Minière Congolaise & Société Nationale des Hydrocarbures du Congo) (World Resource Institute and COMICO 2013). Blocks for oil exploration were assigned to the company in 2018 by former President Kabila (Global Witness 2018). While SONAHYDROC is a public company owned by the State of DRC, COMICO’s ownership is unclear. It is known that a Guernsey-registered company Centrale Oil & Gas – owned by South-African diamond magnate Adonis Pouroulis – holds 40% of the company’s shares, but otherwise the company’s ownership structure is opaque (Global Witness 2018).

While cattle concessions were noted in Mai-Ndombe from empirical observations, limited information was found online. One report from the RRI (2018) noted an overlap between the SOGENAC cattle breeding concession, conservation areas, SODEFOR logging concessions, and Indigenous Mpole and Mpaha lands.

New business, but still business-as-usual
Until 1990, the Belgian-founded, and then government-owned, FORESCOM was the largest forest company in the Bandundu province (current Mai-Ndombe). In 1994, the Nordsudtimber group, a Portuguese-held capital fund registered in Liechtenstein, was granted land titles, for a total of 1.7 million ha (SODEFOR website). In the DRC, Nordsudtimber operates through its subsidiaries SODEFOR, FORABOLA and FOLAC (Land Matrix). The group has since

Figure 2. Mai-Ndombe province with overlays of multiple interests
Source: World Resources Institute 2023, distributed under the Creative Commons Attributions 4.0 International License. Link to interactive map
acquired additional titles, covering an estimated total of 2.6 million ha of logging and carbon concessions in Mai-Ndombe alone (own calculation, based on data from MEDD 2023). The group has recently converted several of its forest concessions to carbon concessions, under the name of Kongo Forest Based Solutions (KFBS). According to an investigation by El País and Planeta Futuro (Mongabay 2022), the company converted its timber concessions to carbon concessions, with the support of the Congolese government, without public oversight, and in breach of the 2002 moratorium on forest concessions. This prompted some backlash amongst civil society, as the converted concessions overlap with customary lands, climate-critical peatlands and the Tumba-Ledima Nature Reserve (Figure 2). Industrial logging in the DRC can be expensive, due to poor transportation networks (Damania et al. 2016) and long distances to the exporting port of Matadi. This may make carbon concessions a more immediately viable source of revenues, as an alternative to timber production. Nonetheless, out of the DRC’s 26 provinces, Mai-Ndombe remains the fifth biggest timber producer, based on the identified export certificates with (reported) almost 1000 m$^3$ of timber exported in 2022 (DGF Certificats Phytosanitaires 2022), see Figure 3.

The main countries of export are Vietnam and Portugal. Several phytosanitary certificates fail to mention a country of destination (marked as ‘To order’ on the form). But according to the export contracts attached, the timber is bought by an intermediary broker, based in the United Arab Emirates, which seems to mainly export products to the Asian market.

Prior to a formal benefit-sharing mechanism in May 2022 (World Bank 2022, Kengoum et al. 2020), private carbon concessions are not legally obligated to share any carbon offset benefits with local communities. As such, even if the incentive has shifted from timber to carbon, the main beneficiaries are the same companies. Carbon offsetting schemes in forest-rich tropical countries may alleviate the burden of emission creation in developed countries, while the forest-dependent communities that live in proximity to carbon concessions are often restricted from entering concession areas that were previously customary lands.

**Discussion and concluding remarks**

Policy instruments like REDD+ are often justified under the assumption that transformational change can be brought about with a shift of incentives; for example, REDD+ helps to change political decision making over standing forests so more than extractive values are considered. However, our analysis shows that this assumption may overestimate the influence of such incentive structures, at least in the case of Mai-Ndombe, as REDD+ incentives are generally directed towards small-scale actors while large swaths of land continue to be allocated to extractive activities. Policy instruments cannot be considered in isolation of the historical and social context within which they are embedded; despite significant amounts of REDD+ financing introduced into Mai-Ndombe, we observe continued large-scale and overlapping activities associated with established and emerging mining, timber and livestock concessions, and oil exploration permits. Due to their long-term establishment in the institutional structure, these pre-existing activities are path dependent or ‘sticky’ and it would require high upfront financial and political investment to overcome their resistance to change. It is also argued that the DRC’s REDD+ process has reinforced a reality that blames local communities for deforestation, framed through an assemblage of geospatial imageries, maps and discursive practices, with causality being questioned (Ickowitz et al. 2015; de Araujo Barbosa et al. 2018; Windey and Van Hecken 2019). In essence, the overall goal of DRC’s REDD+ programme is to incentivise...
local rural communities to reduce their ‘harmful’ activities and maintain forest cover, while enabling private and international investments for economic growth into commercial and industrial agricultural land, timber and minerals (DRC-MECNT, FCPF and UN-REDD 2015).

This infobrief provides a methodological contribution by combining the analytical framework of telecoupling with rigorous open-source research, data and qualitative analysis to examine how financial flows affect the economics and territorialization of land, as well as problematization of drivers. Our entry point for data collection was to identify publicly available databases around land and forest use to understand what was happening in our case study, and then work outwards to trace the actors, flows and processes involved, as inspired by Fris and Nielsen (2019). By identifying the land-use activities in Mai-Ndombe, we were then able to complement these findings with open-source information to explore the flows of discourses, finance and commodities. This grounded empirical approach, together with open-source research, can help to provide qualitative historical and social context for telecoupling research. Using corporate databases such as ORBIS to identify ownership structures helps to demonstrate the link between companies’ influence and landscape changes that pose severe risks to human wellbeing (Dauriach 2022).

The distant flows of financing and globally-traded commodities have historically led to land tenure insecurity and induced inequality in the Global South, as traditional livelihoods have been restricted and new land uses have emerged (Brockhaus et al. 2021). We note that, at least in the case of Mai-Ndombe, REDD+ strategies inadvertently reinforce historical inequalities by focusing on local interventions. In failing to address the larger-scale drivers of deforestation, REDD+ in the DRC chooses not to tackle persistent power relations, discursive practices, and incentive structures that drive extractive forest and land-use activities. As such, the effectiveness of climate funding in reducing emissions in Mai-Ndombe remains questionable. Without emitters taking significant measures to effectively reduce their emissions in the first place, carbon offsets may instead create perverse incentives, acting as a policy tool that justifies business-as-usual and enables a licence to pollute. The methods and data in this brief provide insights for how financing and investments are driving forest and land-use change, where they are from, and to where commodities from these activities are being sent. This information can support efforts being led by civil society, Indigenous Peoples and local communities to monitor and track who benefits (and who loses) from these land-use activities. Donors also have a vested interest in knowing this information, and should invest in the continued generation of such data and its availability to the public. We encourage funders, policymakers and researchers at the intersection of climate and forests to avoid over-simplified narratives of who is to blame, and instead follow the money, asking who benefits from forest exploitation and land-use change when policies and measures to halt deforestation are designed.

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References


