

# ROADS TO RUIN: THE EMERGING IMPACTS OF INFRASTRUCTURE DEVELOPMENT IN CONGO BASIN FORESTS

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## EXECUTIVE SUMMARY

Until recently, the Congo Basin, the world's second largest rainforest, has suffered from a much lower rate of deforestation than tropical forests in other regions of the world. This has been due to a range of factors, including lack of development, weak transportation infrastructure and political instability in the countries of the region.

However, the signs of growing pressures on the Basin have been clear for some years now,<sup>1</sup> and awareness that DRC's forests contain around 23 metric gigatonnes of carbon alone<sup>2</sup> – with another 30 gigatonnes<sup>3</sup> in the peatbogs underlying them – has attributed a global significance to their protection. In response to the perceived threat to this vast carbon store, international interest in and funding for Reducing Emissions from Deforestation and Degradation (REDD+) has grown rapidly. RFUK's assessment is that at least \$1.1 billion worth of REDD+ or similar projects in the region, are either in progress or under development (see Section 2.3), whilst several have already been completed. It is likely that a purported new \$1 billion Letter of Intent, between the Central African Forest Initiative (CAFI) and the DRC, will result in several more projects as well as increased funding for existing ones.

Whilst threats to the forest have typically been ascribed to local slashing and burning for subsistence agriculture and charcoal production,<sup>4</sup> the impacts from large-scale development projects have been widely ignored. Infrastructure expansion is gathering pace, particularly with the greater engagement of China in the region, and all of the Congo Basin countries have embarked on economic growth plans that will involve the development of major transport and energy projects. Numerous long-mooted projects are already underway or in the serious planning phase, and with this has come growing concerns about impacts to local communities, the environment, biodiversity, and the services provided by forests. Most, if not all, are likely to have long-term, significant and probably irreversible impacts on the forests (and in some cases, the underlying peatbogs) they will be carried out in.

Many are also located in the same areas targeted for REDD+ schemes; and in some cases, the financial backers of these REDD+ programmes are also financing the infrastructure projects which will counteract them. Two of the regions most impacted by several of the projects addressed as case studies in this report – southern Cameroon and northern Republic of Congo – and where the long-term cumulative impacts could be devastating, are also the subject of government-led proposals for large scale jurisdictional REDD+ programmes. Yet, as shown below, none of the planned or prospective REDD+ programmes address this issue, and there is no indication that these projects have seriously considered the impacts of such developments, or could make any significant contribution to ameliorating them. This report describes the challenges, threats, and conflicts of interest posed by large infrastructure projects, in the context of efforts to protect forests through REDD+ programmes.

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1 WRI, 2019

2 NASA, 2017

3 Dargie, G., Lewis, S., Lawson, I., 2017

4 See for example, UN-REDD, 2012

**Figure 1: Map of case studies in this report**

Source: RFUK

As this report shows, some of these projects are already causing serious long-term impacts. In some cases, the environmental impact is arguably a justifiable cost in terms of the potential economic gains; in more however, the costs have been higher than necessary due to bad planning, corruption, failure to follow better practice, and simple negligence. In almost none of the cases featured in this report have simple and relatively inexpensive procedures, aimed at minimising social impacts, been properly followed. More often than not, while large-scale projects have been justified on the grounds of bringing local development and improvement to peoples' quality of life, the reality is that they primarily benefit industries, the state and corrupt interests within them.

There are a number of underlying problems that contribute to the inability of Congo Basin countries to carry out energy and transport infrastructure projects in a manner that is environmentally sustainable and socially equitable. Very weak governance, poor technical capacity and corruption mean that such projects might primarily be determined and designed to serve specific vested interests, rather than developmental benefit. The case of the Mékin Dam in Cameroon serves to illustrate some of these problems.

The absence of coherent national development strategies or land-use planning frameworks, and the inadequate consideration (or deliberate ignoring) of the true costs of energy and transport infrastructure projects, are also major contributing factors. These include: the indirect or cumulative effect of such projects, where major projects can have impacts well beyond those of the project itself; costs of displacement and relocation of local communities, as well as other social and cultural costs; and the foregoing of potential alternative approaches. The Chad-Cameroon oil pipeline is a case in point.

Another particularly serious challenge for Congo Basin countries, is how to monitor and supervise large energy and transport infrastructure projects. The World Bank and the African Development Bank provide, through their environmental and human rights safeguard policies, the possibility to ensure that borrowers are carrying out infrastructure projects in an environmentally and socially responsible manner. However, international donors and investors have long been far too willing to turn a blind eye to evident problems with the projects – even when they contradict their own safeguards and policies. In some cases this has happened repeatedly, with the failure of the same government agencies being tolerated over many years. The Pro-Routes project in DRC, and the Lom Pangar and Nachtigal Dams in Cameroon, starkly highlight the frequency and depth of these problems.

The impacts of such issues are further exacerbated by a lack of land security and other rights, which mean that communities often have no real means of redress and are hugely disadvantaged when it comes to seeking compensation. Indigenous peoples suffer the most acutely, as they lack any form of recognition of their customary and collective rights, or indeed of their legal existence in most cases. Of the Congo Basin countries, only the Central African Republic has ratified ILO Convention 169 protecting the rights of indigenous peoples, and the Republic of Congo adopted a national indigenous peoples' law – though both have yet to be implemented. Especially concerning is that contrary to the internationally-recognised right to participation, consultation and consent, the failure of governments to include indigenous peoples in processes related to forest governance and management, or provide any opportunity to participate in decision-making on energy and transport infrastructure projects, means that the impacts of such projects on communities are not taken into account.

The companies carrying out work on energy and transport infrastructure projects in Congo Basin countries also hold responsibilities, not only to conduct their work in compliance with national laws and regulations, but to respect the human rights of persons and communities potentially or actually affected by their projects. In many cases however, the main contractors or managers are fully or partially state-owned enterprises, and hence tend to have relative or absolute immunity in terms of legal obligations. Foreign investors might, in theory, be more subject to laws regulating business abroad, but in practice there is a lack of mechanisms for bringing actionable claims against failures to comply with such requirements.



## **SUMMARY RECOMMENDATIONS**

To address the inherent flaws in the current approach to energy and infrastructure development in the Congo Basin, and thereby reduce the social and environmental impacts of such projects, the following sets out summary recommendations for stakeholders in this space:

### **CONGO BASIN GOVERNMENTS SHOULD:**

- Fully take into account the direct and cumulative impacts of existing and planned infrastructure projects, and the extractive industries they serve, in national REDD+ investment frameworks (NIFs) and in nationally determined contributions (NDCs) to the Paris Climate Accord.
- Adopt and enforce legislation requiring businesses to carry out, and fully disclose, the environmental and social assessments of proposed infrastructure projects; as well as implement due diligence processes to identify, prevent, mitigate and remedy adverse human rights impacts.
- Ensure that infrastructure plans are conceived through a process of multi-sectoral and participatory land-use planning, and accompanied by a strengthening of local tenure rights to ensure access to benefits and sustainable management of land and resources.
- Adopt regulatory requirements ensuring mechanisms for meaningful consultation, free, prior and informed consent (FPIC), participation, and access to remedy by persons potentially or actually impacted by infrastructure projects, throughout the life of the project.
- Carry out and publish detailed cost-benefit assessments of planned projects including on the viability of hydropower potential due to changing weather and rainfall patterns resulting from climate change.

### **REGIONAL AND INTERNATIONAL DONOR GOVERNMENTS AND INSTITUTIONS SHOULD:**

- Apply safeguard policies with much more rigour, including by: investing more resources in their monitoring, reporting and follow-up – which should continue well beyond the end of the actual construction project; applying clearer and more demanding environmental and social performance indicators in advance; and setting the achievement of these as payment conditions.
- Improve transparency, oversight, standards and coordination on infrastructure development, potentially by forming an independent regional body akin to the Extractive Industry Transparency Initiative (EITI), with a mechanism for reporting contracts, plans, ESIA's etc. – this could also include a regional database on projects that exist, whether in the planning phase or under development.
- Take measures necessary to ensure that the CAFI Letters of Intent (LOI) and other agreements to protect Congo Basin forests contain sufficient conditions concerning the public disclosure and due diligence of infrastructure projects as well as plans to mitigate their impacts.
- Ensure greater coherence between funding for infrastructure projects and for REDD+; including by greater public scrutiny of infrastructure and REDD+ funding in key donor countries (such as the UK, Norway and Germany), as well as the interplay between them.
- Step up efforts to bring China and other investors into multilateral forest conservation initiatives, such as CAFI, to avoid parallel processes.

### **COMPANIES WORKING ON INFRASTRUCTURE PROJECTS SHOULD:**

- Implement a due diligence process that allows them to identify, prevent, mitigate and remedy adverse human rights impacts, as well as undertake and make public environmental and social assessments prior to and periodically over the course of project implementation.
- Establish a transparent, accessible and rights-compatible grievance mechanism that provides fair and effective remedy for individuals and communities negatively affected by infrastructure projects.



## GLOSSARY OF ACRONYMS

<b>ADB</b>	The African Development Bank
<b>ADIAC</b>	Agence d'Information d'Afrique Centrale
<b>AFD</b>	Agence française de développement (French government development agency)
<b>AfDB</b>	African Development Bank
<b>AU</b>	African Union
<b>BDEAC</b>	The Development Bank of Central African States
<b>BEGES</b>	Bureau d'Études pour la Gestion Environnementale et Sociale (of the DRC Pro-Routes programme)
<b>BHRRC</b>	Business and Human Rights Resource Centre
<b>BUPAC</b>	Bili-Uélé Protected Area Complex (in DRC)
<b>CAR</b>	Central African Republic
<b>CBFP</b>	Congo Basin Forest Partnership
<b>CCA</b>	Canadian Council on Africa
<b>CED</b>	Centre pour l'Environnement et le Développement/Centre for Environment and Development (NGO)
<b>CI</b>	Cellule Infrastructures
<b>CNEEC</b>	China National Electric Engineering Corporation
<b>COMIFAC</b>	Commission des Forêts d'Afrique Centrale/Central African Forests Commission
<b>COTCO</b>	The Cameroon Oil Transportation Company
<b>CWE</b>	China International Water & Electricity Corporation
<b>DFR</b>	Dja Faunal Reserve (Cameroon)
<b>DDNP</b>	Deng Deng National Park (Cameroon)
<b>DFID</b>	Department for International Development (of the UK government)
<b>DRC</b>	Democratic Republic of Congo
<b>EDC</b>	Electricity Development Corporation (of Cameroon)
<b>EDF</b>	Environmental Defence Fund (US-based NGO)
<b>EIA</b>	Environmental Impact Assessment
<b>EIB</b>	European Investment Bank
<b>ESA</b>	Environmental & Social Assessment
<b>ESAP</b>	Environmental and Social Advisory Panel
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESMP</b>	environmental and social management programme
<b>FCPF</b>	Forest Carbon Partnership Facility (of the World Bank)
<b>FCTV</b>	Fondation Camerounaise De la Terre Vivante
<b>FDAPYD</b>	Foyer de Développement pour l'Autopromotion des Pygmées et Indigènes Défavorisés (DRC indigenous peoples organisation)
<b>FONER</b>	Fond National d'Entretien Routier (of the DRC government)
<b>FPIC</b>	Free Prior and Informed Consent
<b>FPP</b>	Forest Peoples Programme
<b>GEF</b>	Global Environment Facility

<b>IBRD</b>	International Bank for Reconstruction and Development (World Bank)
<b>ICCN</b>	l’Institut Congolais pour la Conservation de la Nature (of the DRC government)
<b>IDA</b>	International Development Association (of the World Bank)
<b>IEG</b>	Independent Evaluation Group (of the World Bank)
<b>IFC</b>	International Finance Corporation (of the World Bank)
<b>ILO</b>	International Labour Organisation
<b>IMF</b>	International Monetary Fund
<b>IRENA</b>	International Renewable Energy Agency
<b>IWGIA</b>	International Work Group for Indigenous Affairs (NGO)
<b>JRC</b>	Joint Research Centre (of the EU)
<b>MECNT</b>	Ministère de l’environnement, conservation de la nature et du tourisme (of the DRC government, now MEDD)
<b>MEDD</b>	Ministère de l’environnement et développement durable (of the DRC government)
<b>MITP</b>	Ministère des Infrastructures et Travaux publics (of the DRC government)
<b>MW</b>	Megawatt (unit of electricity)
<b>NHPC</b>	Nachtigal Hydro Power Company (of Cameroon)
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OFAC</b>	L’Observatoire des Forêts d’Afrique Centrale/Central African Forest Observatory
<b>PnFoCo</b>	Forest and Nature Conservation Programme (of the World Bank in DRC)
<b>PRC</b>	The Peoples Republic of China
<b>RDC</b>	République Démocratique du Congo (DRC)
<b>REDD+</b>	Reducing Emissions from Deforestation and Degradation
<b>RFI</b>	Radio France International
<b>RN</b>	Route National (in DRC)
<b>RFUK</b>	Rainforest Foundation UK
<b>SASACSC</b>	State-owned Assets Supervision and Administration Commission of the State Council (of the Chinese government)
<b>SAILD</b>	Service d’Appui aux Initiatives Locales de Développement (Cameroon-based NGO)
<b>SNPC</b>	Société nationale des pétroles du Congo (National Petroleum Company of Congo)
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organisation
<b>UNGC</b>	United Nations Global Compact
<b>UNGP</b>	United Nations Guiding Principles on Business and Human Rights
<b>UN OHCHR</b>	United Nations Office of the High Commission on Human Rights
<b>WCS</b>	Wildlife Conservation Society
<b>WEF</b>	World Economic Forum
<b>WHC</b>	World Heritage Committee (of UNESCO)
<b>WRI</b>	World Resources Institute
<b>WWF</b>	World Wide Fund for Nature

# 1. INTRODUCTION

While significant attention has been paid to the effects of mining, logging, and agro-industry projects<sup>5</sup> on Congo Basin forests, the impacts from infrastructure development to serve these industries has received little scrutiny, apart from broad overviews by Bill Laurance and his team.<sup>6</sup> This stands in stark contrast to the Amazon Basin rainforest, where the long-term or irreversible impacts of infrastructure projects have long been understood, and the rightful cause of major international concern – even if this has not always resulted in the problem being successfully addressed (see Box below). With alarming parallels seen in cases in this report, some of the earliest signs of large-scale deforestation and attendant problems for forest dwellers in the Amazon Basin in the 1980s arose because of road and hydroelectric dam development schemes – often funded by the World Bank.<sup>7</sup>

This report aims to fill this gap. It is the outcome of a long period of desk-based research and analysis that utilises primary and secondary sources. Although it describes a number of projects in detail, it is nevertheless a summary overview of what is a constantly changing and complex picture. It is far from comprehensive, and information on infrastructure development generally remains scarce and piecemeal. The case studies from which the general observations, conclusions and recommendations are drawn have been selected on the basis that they represent a range of countries, types of projects, and issues arising from them. Because of a lack of reliable information or uncertainty over whether they will proceed, some regionally significant projects have been excluded, such as the Grande Inga-3 Dam in the Democratic Republic of Congo (DRC).

This report focuses on energy and transport infrastructure projects. We selected these two sectors not only because from a material standpoint they have among the largest physical impact upon the environment and local communities, but also because financially they represent a large majority of the total cost of proposed projects and programmes.<sup>8</sup> Three of the six countries that contain the Congo Basin Forest are covered: Cameroon, Democratic Republic of the Congo, and the Republic of the Congo. It is structured so as to elucidate three key aspects:

- 1 The types of ongoing and proposed energy and transport infrastructure projects in the Congo Basin forest zone;
- 2 The adverse impacts of these projects on the forest and forest-dependent communities;
- 3 The underlying problems that contribute to these adverse impacts.

Following this introduction, Section 2 considers the context for energy and transport infrastructure development by first providing a brief overview of the state of such infrastructure in the Congo Basin countries covered by this report, and the national, regional, continental, and international support for such development. It includes a summary of the known major REDD+ projects in the region. Section 3 identifies some of the key underlying reasons why Congo Basin governments do not carry out these projects in a manner that is both environmentally sustainable and respects the rights of communities living in affected areas. Section 4 contains eight case studies of current or recent infrastructure projects in the three countries. Section 5 consists of conclusions and recommendations for Congo Basin governments, regional and international organisations and the private sector.

5 See for example, RFUK and Forests Monitor, 2007; RFUK, 2013

6 See for example, Laurance et al, 2015

7 See for example, Cowell, A, 1990

8 AU/AfDB, 2012

## BOX 1: DEFORESTATION IMPACTS OF INFRASTRUCTURE IN THE AMAZON

Endless tracts of ruined rainforest, the terrible effects on indigenous communities, and satellite images showing the inexorable spread of new farmsteads turning the forest to grey or brown were some of the scenes which first alerted the world in the early 1980s to the impending disaster of Amazon rainforest destruction and the dangerous potential of infrastructure projects.

Much of the imagery focused on the World Bank-funded 'Polonoroeste' project, an agricultural development programme around the BR-364 highway traversing Brazil's remote and entirely forested Rondonia State. After only four years of funding (1983-87) – which ultimately saw the project held up as an example of failed policies and practices – the Bank was, for the first time ever, forced to withdraw funding on environmental grounds. But other major infrastructure-related destruction in the Amazon soon followed, such as the Grande Carajas iron mining project which included an associated 890-kilometre railway, a new deepwater port, and a huge hydroelectric dam on a major Amazon tributary (abandoned in 1990 after indigenous and international protest, but then resurrected twenty years later as the Belo Monte Dam, and now completed) – both also part-funded by the World Bank.

In 2001, in a first effort to systematically assess the likely impacts of infrastructure in the Amazon, Bill Laurance, Philip Fearnside and others' paper 'The Future of the Brazilian Amazon' revealed that 'Investments totalling about \$40 billion over the years 2000-2007 will be used for new highways, railroads, gas lines, hydroelectric projects, power.'<sup>9</sup> Using spatial modelling, they concluded that the infrastructure would cause between 269,000 and 506,000 hectares of additional deforestation per year, as well as the conversion of 1.53-2.37 million hectares of pristine or lightly degraded forest into moderately or heavily degraded lands.

In 2015, Professor Fearnside, the foremost authority on Amazon deforestation and its causes, concluded that: 'roads are important forces influencing the rate of deforestation in Amazonia; major roads stimulate deforestation by facilitating the construction of smaller side roads and human settlements in remote areas; the alleged benefits of roads to the Amazon forest are illusory; and that no amount of mitigation will prevent deforestation from occurring after a road is built.'<sup>10</sup>

A recent report from 2020<sup>11</sup> has found that, in the next five years, 10 thousand kilometres of roads will be built or improved in the Amazon, noting that while 'well-designed projects can increase employment opportunities, reduce transport costs, and support regional development....roads will also drive deforestation, threatening biodiversity and ecosystem services, jeopardising the welfare of indigenous peoples, and moving the biome toward irreversible shifts in vegetation.'

These studies should serve as a warning sign for similar infrastructure project developments in the Congo Basin – a region of less remoteness, greater developmental need and higher population density than much of the Amazon where road building in particular, done without proper safeguards and planning, has been environmentally disastrous.

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9 Laurance, WF et al., 2001

10 Fearnside, P.M., 2015

11 Vilela, T, et al, 2020

## 2. THE CONTEXT FOR INFRASTRUCTURE DEVELOPMENT IN THE CONGO BASIN

Infrastructure is considered to be one of the most important factors affecting the level of productivity of a country and, in turn, the prosperity that can be reached by an economy.<sup>12</sup> Deficiencies in transport infrastructure can render the movement of goods highly expensive, affect the mobility of people and impede trade with other countries in the region and beyond. The absence of energy infrastructure, especially in rural areas, leaves millions with little or no electricity thereby hampering development and the provision of services. Therefore, the need to address deficiencies in energy and transport infrastructure in Congo Basin countries, in order to increase economic prosperity and reduce the extent of poverty, is well recognised.

Support for the pursuit of large infrastructure projects exists at the regional level, in particular through the African Development Bank's programmes for regional integration,<sup>13</sup> as well as wider commitments such as those made by the G8 in 2013.<sup>14</sup> Upgrades and the construction of new road and rail lines are being pursued and planned by all countries in the region. With energy supplies inadequate and unreliable, even for current levels of demand let alone for planned growth, large-scale hydroelectric projects and associated transmission lines have been the preferred type of energy project – even as new renewable energy technologies open the opportunity for small-scale localised power generation.

However, the potential environmental and social costs of a large number of the infrastructure projects currently being, or proposed to be, constructed in the Congo Basin region is significant. Deforestation is already occurring as a result of these works, and there is potential for much more as both a direct and indirect consequence of them.

### 2.1 A FOREST OF GLOBAL BIODIVERSITY AND ENVIRONMENTAL SIGNIFICANCE

The Congo Basin forest is an invaluable reserve of biodiversity. Some 10,000 species of plants,<sup>15</sup> 1,200 species of birds, and more than 400 species of mammals<sup>16</sup> including endangered wildlife such as forest elephants, gorillas and bonobos, can be found there. This biological diversity has intrinsic value as well as an array of other values, including 'ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic value.'<sup>17</sup> The forest also has far-reaching environmental effects. At a regional level, it regulates the hydrological cycle and helps control flooding, contributes to cooling through evapotranspiration, and serves as a buffer to variations in climate.<sup>18</sup> Globally, it is a storehouse for about 25 percent of the carbon held worldwide in tropical forests.

### 2.2 A HOME AND RESOURCE FOR LOCAL COMMUNITIES

The Congo Basin forest is home to 30-50 million people who are dependent on it for their livelihoods and cultural practices.<sup>19</sup> Collectively, they constitute over 150 ethnic groups.<sup>20</sup> Indigenous communities are particularly dependent upon the forest's resources for food, water, shelter and medicine. They also hold a deeply rooted spiritual and cultural relationship to the lands, territories and resources they occupy or use,<sup>21</sup> and those who are nomadic and semi-nomadic generally subsist across large tracts of forest.

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12 WEF, 2014  
13 AfDB, 2019  
14 AfDB, 2013  
15 CBF, 2005  
16 Mukeba, A 2013  
17 United Nations, 1992  
18 World Bank, 2013  
19 Lewis, J and Nelson, J, 2011  
20 World Bank, 2013  
21 UN OHCHR, 2013

## 2.3 REDD+ IN THE CONGO BASIN

REDD+ programmes have been under development or in operation in the region since 2000, typically focusing on forest communities and small-scale subsistence farmers.<sup>22</sup> Recent years however, have seen a major expansion of the plans and investments for these projects, with all countries seeing REDD+ as a key vehicle for achieving their nationally determined contributions (NDCs) to the Paris climate accord. A non-exhaustive overview of the major known REDD+ projects is given below in Table 1. The table also shows major infrastructure projects, which are either within those same regions or may otherwise have an impact on them. As can be seen, many of the major REDD+ projects currently underway are likely to be impacted by concurrent infrastructure projects. These impacts are described in more detail under the relevant case studies in Section 4.

**Table 1: REDD Programmes and overlapping infrastructure projects**

Project name	Period of operation	Cost & funders, actual or [proposed]	Overlapping infrastructure projects
<b>Cameroon</b>			
Emission reduction program in southern Cameroon	Under proposal	<b>Total:</b> \$127m <b>Sources:</b> [CAFI, FCPF, private]	Kribi Port and associated roads; Mbalam mine and railway to Kribi; Mékin Dam; Memve'Ele Dam, Djoum-Ketta road
REDD+ around Mount Cameroon, southwest region of Cameroon	2000 -undetermined	<b>Total:</b> undetermined <b>Sources:</b> [KfW]	
<b>DRC</b>			
Mai Ndombe Integrated REDD+ programme	2018 -undetermined	<b>Total:</b> \$417m <b>Sources:</b> FCPF \$55m CAFI \$30m FIP \$24.2m GEF \$4m [Remainder: KfW, CAFEC, private, revenues]	
Sustainable livelihoods and forest protection in Mai-Ndombe (WWF)	2016-2025	<b>Total:</b> at least \$14m <b>Sources:</b> Norway (including part of a multi-country project, 2016-2020)	
Integrated REDD+ programme for the provinces of Tshopo, Ituri et Bas Uele (Oriental)	2019-2024	<b>Total:</b> \$33m <b>Sources:</b> Norway/CAFI	Pro-Routes
Integrated REDD+ programme for the province of Sud Ubangi	2017-2021	<b>Total:</b> \$202m <b>Sources:</b> IDA \$75m CAFI \$7m [Others \$38m]	Pro-Routes

Integrated programme for Kwilu	2018-2023	<b>Total:</b> \$7.4m <b>Sources:</b> CAFI \$4m JICA \$3.4m	Rehabilitation of RN1
Integrated Programme for Equateur province	2019-2023	<b>Total:</b> ~\$10m <b>Sources:</b> CAFI \$6m Sweden \$4m	Pro-Routes
Integrated programme for Mongala province	2019-2023	<b>Total:</b> \$7m <b>Sources:</b> CAFI	Pro-Routes
Integrated REDD+ project in the Mbuji-Mayi/Kananga basins and Kisangani (PIREDD/MBKIS)	2013-ongoing	<b>Total:</b> \$20m <b>Sources:</b> AFDB	Pro-Routes
Project Pilot REDD+ integer around the Luki Biosphere Reserve in the forest of Mayombe (WWF Belgium)	2011-Completed	<b>Total:</b> \$2.7m <b>Sources:</b> AFDB	
Integrated REDD+ Pilot Project (ECOMAKALA +) (WWF Belgium)	2011-Completed	<b>Total:</b> \$3m <b>Sources:</b> AFDB	
Pilot REDD+ agroforestry project, Kwamouth (Novacel, SPRL)	2011-Completed	<b>Total:</b> \$3m <b>Sources:</b> AFDB	
Integrated REDD+ programme of Isangi (MECNT <sup>23</sup> )	2011-Completed	<b>Total:</b> £2.8m (~\$4.48m) <b>Sources:</b> AFDB	
Integrated REDD+ project, Mambasa (MECNT)	unknown	<b>Total:</b> \$3.7m <b>Sources:</b> AFDB	
<b>Republic of Congo</b>			
Republic of Congo Emission Reduction Program	2021-2025	<b>Total:</b> \$42m <b>Sources:</b> FCPF	Djoum-Ketta road; Pointe-Noir-Ouessou pipeline; Chollet dam
Letter of Intent with CAFI	2019-2025	<b>Total:</b> \$65m <b>Sources:</b> CAFI	Pointe-Noir-Ouessou pipeline
<b>Gabon</b>			
Letter of Intent with CAFI	2017-2021	<b>Total:</b> \$150m <b>Sources:</b> CAFI	285-kilometre road between Ndende in Gabon and Dolisie in the Republic of Congo
<b>TOTAL</b>		<b>~\$1,111.28m minimum</b>	

## 2.4 THE NEED FOR, AND STATE OF, INFRASTRUCTURE IN THE CONGO BASIN

The state of infrastructure in the Congo Basin is generally viewed as a severe impediment to trade, investment and the economic and social development of the countries of the region.<sup>24</sup> The World Economic Forum has identified inadequate infrastructure as one of the most problematic factors for doing business in Cameroon and Gabon,<sup>25</sup> though these two countries are probably some of the better served within the region. With only a small fraction of the generation capacity (mostly from hydro) being harnessed,<sup>26</sup> the majority of the population in every country in the region has no access to electricity (the exception being Gabon due to its highly urbanised population). The figure in the Central African Republic for instance, is around 95 percent.<sup>27</sup> Consequently, most of the overall demand for energy in the Congo Basin is satisfied through biomass, especially wood fuel.

Electric power demand in the region is projected to grow substantially per capita, between 2015 and 2025.<sup>28</sup> DRC and Cameroon in particular are viewed as potential exporters of electricity, if they develop their hydropower potential.<sup>29</sup> However, at present Cameroon's rural areas lack adequate access to electricity,<sup>30</sup> and in DRC many power plants require refurbishment, with the power supply often subject to blackouts and many companies having to rely on their own generators.<sup>31, 32</sup> In 2015, the Republic of Congo had around 1500 GWh/yr of capacity from hydro and fossil fuels,<sup>33</sup> but with extremely high losses during the transport and distribution of power (reportedly 76.8 percent in 2019<sup>34</sup>).

In terms of transport infrastructure, the Congo Basin suffers from both a very low density of it, and the very poor condition of what exists. The paved road density in the region is about 25 kilometres for every 1,000 square kilometres of arable land. This is not only one of the lowest in the world, but only a quarter of what exists in the rest of Sub-Saharan Africa.<sup>35</sup> In 2012, of the whole region only Gabon had more than 10 percent of its total roads paved, compared with an average of 23.8 percent in Sub-Saharan Africa.

In the DRC, not only has lack of investment left roads mostly in a very poor condition, but the physical geography of the country – with its large area, extensive forests and numerous rivers – coupled with a relatively low population density, also contributes to the challenge of improving road infrastructure.<sup>36</sup> Additionally, the very limited railway network constructed across the Congo Basin was built primarily in order to extract natural resources, especially minerals and timber, for export. The lines mostly do not facilitate the movement of people or goods to and from population centres, or to rural villages within or between countries in the region.<sup>37</sup> And on top of that, one third of the 7,579 kilometres of railway network in the region is not operable.<sup>38</sup>

Two ports, Douala in Cameroon and Pointe Noire in the Republic of Congo, have served as the main transshipment hubs for the region, but they are considered to significantly lag behind global standards.<sup>39</sup> The Congo River Basin has about 25,000 km of potentially navigable waterways but there are only three primary routes used, which converge at Matadi port in DRC.<sup>40</sup> With outdated and insufficient infrastructure, as well as a lack of maintenance among other factors,<sup>41</sup> the use of river transportation has greatly declined and the river network remains much underutilised.<sup>42</sup>

24 See for example, KPMG, 2016

25 WEF, 2014

26 KPMG, 2016

27 IRENA, 2012

28 KPMG, 2016

29 Ranganathan, R and Foster, V, 2011

30 AfDB, 2009

31 World Bank, 2010

32 African Energy, 2015

33 Republic of Congo, undated b

34 IMF, 2012

35 World Bank, 2013

36 World Bank, 2010

37 World Bank, 2013

38 World Bank, 2013

39 Ranganathan R and Foster, V., 2011

40 World Bank, 2013

41 World Bank, 2013

42 Ranganathan R and Foster, V., 2011



## 2.5 POLICIES FOR INFRASTRUCTURE DEVELOPMENT

Most of the Congo Basin countries, except for the Central Africa Republic, have made the development of infrastructure part of their overall national strategic plans at some stage in the last decade or so. The statement of such aims is often a mix of political posturing, wild over-ambition, unrealistic expectations in terms of finding and keeping investors, and failure to understand the serious national capacity constraints and hurdles posed by political instability, conflict, and rampant corruption, among other factors.

For example, in 2009 President Ali Bongo Ondimba of Gabon established 'L'Avenir en Confiance,' a project intended to transform Gabon into an 'emerging country.'<sup>43</sup> Infrastructure development was one of the four pillars of Gabon's Strategic Plan for 2011-2016, which included the objectives of modernising its transport infrastructure by 2016, to become energy independent by 2020, and eventually an energy exporter to other countries in the region. However, by 2018 the country's net electricity imports had more than doubled compared to 2013.<sup>44</sup> The Republic of Congo's 2012-2016 development plan also foresaw the consolidation and development of transport routes, and rail, port and airport facilities, along with an energy corridor from the north to the south of the country.<sup>45</sup> But similarly, very little of this has happened and, as can be seen in the case study in Section 4.6, the latter remains very much on the drawing board. Cameroon and DRC have both set the date of 2035 for their visionary plans, and both also include major infrastructural ambitions.

These qualitative and quantitative infrastructure deficiencies in the Congo Basin region, and in Africa in general, have been recognised as a problem for decades. At the international level, the weaknesses in Africa's regional and continental transport system (which affect its integration and trade facilitation), led to the recognition of two 'UNTransport and Communications Decades' for Africa and two UN initiatives managed by the UN Economic Commission for Africa.<sup>46</sup> The Programme for Infrastructure Development in Africa (PIDA) was also created by the African Union and African Development Bank. PIDA was concerned with integrating transport and energy networks 'to boost trade, spark growth and create jobs. Implementing it will...help deliver a well-connected Africa and realize the building of the African Economic Community.'<sup>47</sup> It envisioned the creation of power pools and the 'sharing of large-scale, cost-effective energy resources across countries' to reduce the expense of electricity.<sup>48</sup> However, according to KPMG, the current reality is that 'the countries of Central Africa engage in minimal power trading with the Central African Power Pool (CAPP) constituting the only available trading mechanism in the region. This Power Pool is one of the least developed and faces many challenges.'<sup>49</sup>



*CAPP headquarters, Republic of Congo*  
Source: [peace-sig.org](http://peace-sig.org)

43 Ambassade du Gabon au Maroc, undated  
44 Energypedia, undated  
45 Republic of Congo, 2012  
46 AU/AfDB, undated  
47 AfDB, undated  
48 AU/AfDB, 2012  
49 KPMG, 2016

### 3. PROJECTS, IMPACTS, RISKS AND FUNDING SOURCES

#### 3.1 INFRASTRUCTURE PROJECTS IN THE REGION – AN OVERVIEW

Despite the many mooted projects which have either progressed very slowly or still remain in the aspirational stage, the pace of infrastructure development in the Congo Basin appears to be growing. This increase has largely resulted from entry into the region by large-scale Chinese investment, especially in dam and road building.<sup>50</sup>

In terms of transport, extensive road projects are being undertaken in several countries, especially DRC (see Case Study 4.8), Gabon and Cameroon. A number of inter-country projects are also planned or underway. For instance, the partly completed \$235 million Ketta-Djoum Road project is intended to eventually create a link between the capitals of the Republic of Congo and Cameroon, via the intended mining region of Mbalam (see Case Study 4.1). This development is within both the FCPF jurisdictional REDD+ programmes in southern Cameroon and northern Congo respectively.<sup>51</sup> A road and rail bridge over the river Congo to link Brazzaville (ROC) and Kinshasa (DRC) is also under consideration, and a 285-kilometre link between Ndende in Gabon and Dolisie in the Republic of Congo is underway.<sup>52</sup> In Cameroon, contracts were signed in 2019 for the paving of a 180-kilometre road between Ebolowa, a centre for cocoa trade, and the new port of Kribi.<sup>53</sup> A 500 km railway is also planned to connect Kribi with the aforementioned Mbalam mine (see Case Studies 4.1 and 4.2), using a 70 km spur line which will also connect to the Nabeba iron-ore deposits in the Republic of Congo. Additionally, there are plans for a vast road link between Brazzaville (ROC), Bangui (CAR) and N'Djamena (Chad).<sup>54</sup> And in Gabon, the 780 km 'Transgabonaise' road project (with links to a company founded by the agricultural giant Olam), is set to cross the country through five provinces in order to connect Libreville and Franceville by expressway.<sup>55</sup>

In terms of energy production, some plans are being considered for solar power plants, such as the 20MW parks in Lagdo and Ngaoundéré, Cameroon.<sup>56,57</sup> However, hydroelectric projects largely dominate new plans for power generation, reflecting the region's vast river network and untapped generating potential. The DRC is currently the greatest producer of hydroelectric power in the region, but still has only 2.5 percent installed capacity, less than half of which is actually functioning.<sup>58</sup> A third power plant at the Inga Falls on the Congo River could potentially generate up to 40,000 MW of electricity, more than one third of the total electricity produced in Africa, but it is fraught with political, geo-strategic, and financial challenges.<sup>59</sup>

Such energy projects invariably require the additional construction of associated infrastructure. For example, electrical transmission lines are needed from electricity producing facilities such as hydropower stations, but because of the forested nature of much of the region, wide corridors need to be cleared for power lines to centres of consumption. The indirect and cumulative impacts of these linear projects can be even greater than the dams themselves, as the case of the Chad-Cameroon pipeline illustrates (see Case Study 4.5). Whether lessons are being learnt from such precedents, could be tested with the Republic of Congo's plans for a 1,200-kilometre pipeline between the oil city of Pointe-Noire and the northern town of Ouessou (see Case Study 4.6).

In the Congo Basin, a trans-boundary approach is almost inevitable for many large projects, reflecting the fact that national boundaries were drawn up with little relevance to resources, population, production centres or actual functional geographical units. The best sites for hydropower projects may make no sense in the national economic context, where demand centres are potentially in an adjacent or more distant country with its own political priorities operating. This makes the task of developing such projects slow and complicated – to the point of deterring investors – and the basic governance and management of them is often chaotic at best. The upgraded Ketta-Djoum road, for example, a potentially significant land link between Cameroon and Republic of Congo, has reportedly already been heavily damaged by logging trucks in northern Congo.

50 <https://www.bu.edu/gdp/chinas-overseas-development-finance/>

51 FCPF, 2014 and FCPF, 2016

52 AU/AfDB, undated b.

53 Investir au Cameroun, 2019

54 AfDB, undated, b.

55 Agence Ecofin, 2020

56 Business in Cameroon, 2019c

57 Business in Cameroon, 2019d

58 Gnassou, L., 2019

59 Gnassou, L., 2019

## 3.2 ADVERSE IMPACTS OF PROJECTS

The national plans of Congo Basin governments highlight the economic benefits of energy and transport infrastructure projects. However, the potentially negative impacts on the forests and the peoples living in, or depending upon them, have often been largely overlooked or inadequately addressed in mitigation plans. This is despite the increasing rhetoric from these governments about the importance of, and their intent to, protect these forests and prevent climate-changing emissions. Two of the very areas most impacted by several of the projects addressed as case studies in this report – southern Cameroon and northern Republic of Congo – and where the longer-term cumulative impacts could be huge, are also the subject of government-led proposals for large scale jurisdictional REDD+ programmes.<sup>60</sup>

The impacts of ongoing projects are already visible in some cases: reduction in forest coverage, habitat fragmentation, uncontrolled migration to primary forest areas, displacement of communities, alteration to traditional patterns of movement for nomadic and semi-nomadic indigenous communities, and diminution of available resources to forest communities and pollution, among others. A key impact rarely considered is how poorly planned large infrastructure projects can create tension and conflict within and between communities, especially in areas already prone to such conflicts. This can be linked to the underlying problem of unclear land and resource rights, as well as the use of mainly immigrant labour in the development of such projects. Several of the case studies in this report (especially Pro-Routes in DRC and Lom Pangar Dam in Cameroon) illustrate the kind of problems and damage which can occur.

### 3.2.1 IMPACTS OF ENERGY PROJECTS

Energy projects of all kinds can have negative impacts. The environmental and social assessment for the Kribi Power Project in Cameroon, a gas-powered electrical generation plant, notes 150 animal species identified in the project area – 15 of which are classed as vulnerable.<sup>61</sup> In addition, many of the plant species that are identified within the project area are essentials to local people, used for food, medicine and construction materials.<sup>62</sup>

However, the main energy projects considered in this report are the construction of hydroelectric dams. As well reported elsewhere, these can result in the destruction of huge swaths of forested land. For example, the Lom Pangar Dam in Cameroon resulted in the flooding of some 300 square kilometres of forest, which was estimated to contain around 1.4 million cubic metres of timber<sup>63</sup> (see Case Study 4.4).

The diversion of water and the flooding that is frequently part of such projects can affect whole ecosystems, natural sediment and river flooding patterns, and impede the migration of fish and other species. The decaying vegetation that results when land is flooded by the dam's reservoirs also releases methane and soil carbon, which can even exceed the release resulting from fossil fuels.<sup>64</sup> This kind of flooding appears to have been the case with both the Mékin and Lom Pangar Dams in Cameroon, which were flooded before the completion of clearance work (see Case Studies 4.3 and 4.4).

As well as the direct impacts, the indirect or cumulative impacts can be serious, particularly in terms of the access created into forested areas by dam-related infrastructure. As seen in all the case studies concerning dams in this report, there is evidence of worrying increases in illegal logging, poaching and the clearance of forest for farmland, including in formally protected areas. The 240 MW Memve'Ele Dam in Cameroon, started in 2012 and finished in 2019, ultimately threatened the richest part of the Campo-Ma'an national park, which had been created in 2000 to offset the environmental damage caused by the Chad-Cameroon pipeline.<sup>65</sup> This demonstrates the domino effect that infrastructure projects can have whereby environmental protections and responsibilities are continually shifted down the line.

The negative social impacts of dams can also be significant. Associated with hydroelectric projects is the installation of electrical transmission lines, which not only cut through protected forested areas, but can require the destruction of farm plots and plantations in the name of clearing substantial corridors and access points. Dams have resulted in the displacement of many communities, and the influx of settlers and fisher-people which disrupt local economies and land tenure systems. With destruction of the forest and changes in the ecosystem, local communities that rely on the river and the forest for their livelihoods can face food insecurity, as well as the loss of access to their vital cultural and religious sites.

60 See FCPF, 2016 and FCPF, 2014

61 Scott Wilson, 2010

62 Scott Wilson, 2010

63 EDC, 2012

64 Fearnside, P and Pueyo, S, 2012

65 Akono, E. B., 2013

### 3.2.2 IMPACTS OF TRANSPORT PROJECTS

The construction of energy infrastructure projects, as well as extractive and development projects, can lead to increased road-building that opens up forest areas to poachers, illegal loggers, agricultural expansion and land speculation. For example, it is estimated that the length of roads in the Congo Basin increased by around 53,000 kilometres from 2013-2018, the length doubling inside of logging concessions, and increasing by 40 percent elsewhere.<sup>66</sup> Numerous studies have demonstrated a clear and significant connection between the development of roads and deforestation.<sup>67</sup> And where the country's forest governance is weak, local law enforcement is poor, and adjacent communities have limited livelihood or secure land tenure, the risk of deforestation is greatly higher over a longer period of time.<sup>68</sup>

Roads and rail lines can also result in displacement, and affect the land upon which local communities are dependent – threatening livelihoods, health and even the survival of whole communities. For example, the Mbalam Railway and the Ebolowa-Akom II railway between Cameroon and Congo, not only entails the dislocation of villagers as well as the destruction of their houses and plantations, but the population increase in the area could also lead to greater demands for agricultural areas and food.<sup>69</sup> The social structures of forest communities can also be affected when forested areas are opened up. Newly created access to markets (one of the potentially significant benefits of roads to rural people) can both stimulate deforestation and cause social tensions, especially as land values rise and distribution of wealth changes. The influx of foreign labourers and other persons from outside the region can further disrupt the social cohesiveness of the community, and can lead to prostitution, alcohol and even drug trafficking.

### 3.3 FUNDING OF INFRASTRUCTURE PROJECTS

The high cost of infrastructure projects for Congo Basin countries, as elsewhere in the global south, invariably requires foreign investment. It is estimated that the Grande Inga III Hydroelectric Dam in the DRC would cost around \$14 billion,<sup>70</sup> equivalent to nearly a third of the country's GDP. The Lom Pangar Dam in Cameroon cost almost \$500 million, and the paving of the 500-kilometre Ketta to Djoum road is estimated to be approximately \$320 million.<sup>71</sup> The Chollet Dam in northern Republic of Congo is expected to cost around \$2.5 billion.

Generally, the public sector provides the largest funding for a sub-Saharan country's infrastructure projects, with transport infrastructure accounting for nearly 50 percent of a country's spending, and energy for about a quarter.<sup>72</sup> However, funding gaps mean these projects are reliant on supplementary funding from international donors.<sup>73</sup> The reliance on foreign funding (mostly donor, soft loan or grant), has meant that to some extent, projects have been subject to loan conditioning – such as World Bank safeguard policies. This can be beneficial, but as several of the case studies show, the actual implementation of these safeguards can be very inadequate.

Increasingly, the main international funding agencies such as the AfDB and World Bank are looking towards private sector investment to fill such gaps. For example, the recent funding structure for the Nachtigal Dam in Cameroon (see Case Study 4.4) was heralded as an important breakthrough because it brought in significant private investment in dam construction in the region. However, such investment is often accompanied with very favourable terms and tax breaks, and will shift the ownership and revenues from the state to private developers, as the projects are developed on a build-operate-transfer arrangement where ownership is only handed over to the state after many years of operation. This will also affect the way such projects are planned and developed, including the mitigation of their negative impacts, because this funding mechanism avoids the need for donor conditionalities and safeguards, and shifts the emphasis from public benefit to private profit.

66 Kleinschroth, F et al, 2019

67 Kleinschroth, F et al, 2019

68 World Bank, 2013

69 World Bank, 2013

70 Bloomberg, 2018

71 AFD, undated, b

72 World Bank, 2011

73 Foster, V and Briceño-Garmendia, 2010

China has emerged as a key funder for infrastructure projects in Africa, providing about two-thirds of new infrastructure investment on the continent since 2007.<sup>74</sup> This funding is being provided through a number of sources, including the China Development Bank, the China Africa Development Fund, and China Eximbank as well as direct aid.<sup>75</sup> In Cameroon, 85 percent of the Mekin hydroelectric facility is being financed by the China Eximbank, and in Gabon, 95 percent of the \$600 million cost for the road construction between Libreville and Port-Gentil, Gabon's only deepwater port, is being funded by a 20 year two percent interest loan from the Chinese government.<sup>76</sup> The Grand Poubara Dam project in Gabon, with an estimated cost of \$300 million, was also 75 percent financed by China Eximbank, and 25 percent by the government of Gabon.<sup>77</sup> China also agreed to loan nearly \$25 million to the Central African Republic for its Boali III Hydropower Project<sup>78</sup> (since stalled), and has also loaned \$360 million for the construction of the 150MW Zongo II Dam in the DRC (completed in 2018<sup>79</sup>).

As in other countries, such large projects tend to prove much more expensive than originally projected, necessitating that costs and thus benefits, be trimmed. An analysis by Oxford University of dams built between 1934 and 2007, found that on average their costs were nearly double initial budget projections, and took almost 9 years, or 44 percent, longer than estimated. Dam cost overruns such as these may have been a significant contributory factor to the debt crises in countries such as Turkey, Brazil and Mexico,<sup>80</sup> and similar problems have been reported for all of the dam projects included in this report.

The financing of energy and transport infrastructure projects can be demonstrably tied to construction and industrial expansion, rather than the best interests of local or even national populations. The Nachtigal Dam in Cameroon for instance, is linked to the expansion of a state-owned aluminium factory at Edea, and the proposed Mbalam-Kribi railway (and to a lesser extent the Kribi Port development), is intended to serve the extraction of iron ore – much of which is likely to be shipped to China.

Typically, the terms of the agreements have been heavily stacked in favour of the exporter. According to an OECD report, China has 'used resource-backed loans, whereby financial institutions such as the China Development Bank provide non-concessional loans to governments which in return contract Chinese companies to build infrastructure projects and extend the right to extract natural resources as well.'<sup>81</sup> For example, DRC entered into an agreement in 2007 (later amended) with the state-owned companies China Railway Group Ltd. and Sinohydro Corporation in which 'Congo promised Chinese state firms up to 10 million tonnes of copper and hundreds of thousands of tonnes of cobalt, in return for a range of infrastructure projects, including roads, railways, hydroelectric power stations, universities and health centres.'<sup>82</sup> Such arrangements linking infrastructure projects to access to mineral or other resources are of particular concern given the lack of transparency around the amounts paid to governments by such companies for taxes, licenses and other purposes.

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74 OECD, 2012  
75 OECD, 2012  
76 Oxford Business Group, undated  
77 China Daily, 2014  
78 China.AidData, undated  
79 Afrik21, 2018  
80 Ansar, A et al., 2014  
81 OECD, 2012  
82 Global Witness, 2011

### 3.4 GOVERNANCE AND LEGAL GAPS

Failure to implement good governance, and adopt and enforce a legal framework for the protection of forests and forest-dependent communities, can lead to significant, unnecessary and irreversible damage from infrastructure, as well as the violation of the rights of peoples affected by them. In all the countries of the region, there are serious gaps in legal frameworks, and at the institutional level. This section considers some of these gaps in turn.

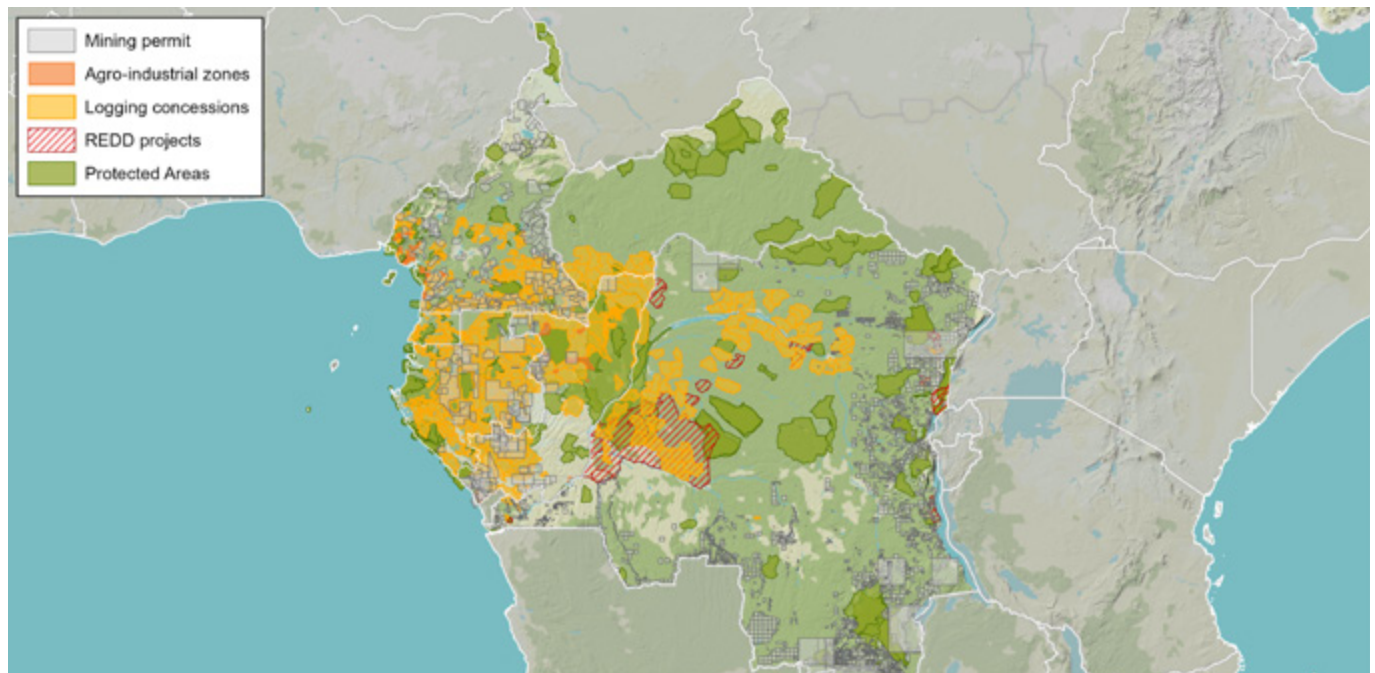
#### 3.4.1 LACK OF LAND MANAGEMENT

The countries of the Congo Basin currently lack transparent and capable planning and administrative processes for the creation of policies, regulations and legislation relating to land use.<sup>83</sup> Consequently, they do not have land management plans that address long-term sustainability considerations or the role that safeguarding the customary land rights of forest communities plays in forest conservation. As an assessment of the region's land policies by the African Union and AfDB noted in 2012, 'Current land policies and laws in the region are deeply influenced by the colonial legacy. Customary based land rights are denied by these laws while state sovereignty over land is strongly proclaimed. The region showed very little experience in land policy formulation and in participatory approaches. Most land related reforms undertaken are done through sectoral and ad hoc interventions.'<sup>84</sup>

The lack of any real policies or capacities for land planning or management, means that one of the key tools for mitigating the impacts of projects – land zoning and designation, including for protection of specific values – is missing or underused. The instances where some form of wider planning has taken place seem mostly to have happened at the behest of multilateral donors. Even zoning for security purposes (such as in the case of Mékin Dam) seems largely to have been a cover for land-grabbing, and otherwise illegal resource exploitation. In the absence of agreed forest land planning and zoning, and where the state holds ownership to all land, allocations for uses of even very large areas can be done essentially on the whim of individual ministers.<sup>85</sup> This can make planning of the forest uses around infrastructure projects almost impossible.

In some countries of the region, interest and activity on land use planning is starting to emerge slowly. For example, in April 2017 in Cameroon, the Ministry of Economy, Planning and Regional Development (MINEPAT) validated a National Plan for Territorial Planning and Sustainable Development, and is developing similar ones for its ten regions. In DRC, with the support of the United Nations Development Programme (UNDP), a land use planning reform programme was launched in 2015, followed by the creation of the Ministry of Spatial Planning and Renovation of the City in 2017 (now the Ministry of Land Use Planning).<sup>86</sup>

**Figure 2: Overlapping land uses in the Congo Basin which are often superimposed over customary lands**



Source: *Global Observation and Biodiversity Information Portal, The World Database on Protected Areas (WDPA), United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN), and the WRI Congo Basin Forest Atlas' via Mapping For Rights.*

83 Eisen, J., 2020

84 AU/AfDB, 2012b

85 See for example, RFUK, 2013, Atama case study

86 Eisen, J., 2020

### 3.4.2 INADEQUATE PROTECTION OF FORESTS

Congo Basin countries have regional agreements to promote the protection of forests, such as the 1999 Yaounde Declaration,<sup>87</sup> and the 2005 Treaty on the Conservation and Sustainable Management of Forest Ecosystems in Central Africa, which establishes the Central African Forestry Commission (COMIFAC)<sup>88</sup> and the related Convergence Plan which aims to harmonise policies and approaches to forests across the region, whilst promoting cross-border collaboration.<sup>89</sup> They have also ratified the Convention on Biological Diversity, although only DRC and Gabon have ratified the Nagoya Protocol to the Convention.

All of the countries have a framework Forest Code, even if in some (such as Cameroon and DRC), external agencies such as the World Bank have played a key role in their development, and national 'ownership' seems lacking.<sup>90</sup> In all the region's countries, the decrees needed to properly enforce the forest codes and other relevant legislation (such as conservation codes), are incomplete – in some cases decades after the framework laws were adopted. None of the countries have a coherent overall forest policy, even if some (especially the two Congos) have been falteringly moving towards developing or adopting them.

All the countries have a broad method of classifying forest land (such as 'permanent' forest or 'production' forest) though as yet, only Cameroon has translated this into a national geographical macro-zoning schema. In practice, the de facto forest policy has been dominated by the allocation of forest land either as forestry concessions for long-term and notionally 'sustainable' timber exploitation, for wildlife conservation (usually in conjunction with foreign NGOs and donor agencies), or increasingly for conversion into agricultural plantations.<sup>91</sup> Although Cameroon, DRC, Republic of Congo, Gabon and CAR all now have laws permitting the establishment of community forests, rural peoples' benefit from forests has generally been an after-thought, or opposed outright (see Section 3.4.5). Instead, government forestry institutions and technical agencies have predominantly been preoccupied with servicing logging companies, and illegalities, corruption and abuses in the forest sector are rampant and pervasive. In this context, compounded by the legislative and institutional weaknesses described above, the development of infrastructure projects can often signal an opportunity for plundering forests.

### 3.4.3 LACK OF PROTECTION OF THE RIGHTS OF INDIGENOUS PEOPLES

All the region's countries have voted in favour of the 2007 adoption of the United Nations Declaration on the Rights of Indigenous People (UNDRIP), which includes the right for indigenous peoples to be consulted and exercise free, prior, informed consent (FPIC) for measures affecting their lives and lands, as well as the right of such peoples to participate in any and all decision-making which affects their rights.<sup>92</sup> The governments are also signatories to the International Labour Organisation's Convention 169 concerning Indigenous and Tribal Peoples, which requires States to institutionalise the participation of indigenous peoples in policies which affect them. Therefore, in keeping with UNDRIP and ILO 169, indigenous peoples should be consulted, and their consent sought, in decision-making processes related to energy and transport infrastructure projects proposed by Congo Basin governments.

However, despite being accorded equal rights under the countries' constitutions, and clear international normative standards which should guide the treatment of the region's indigenous peoples when developing infrastructure projects that affect them, indigenous communities have traditionally been discriminated against or marginalised in the Congo Basin. In DRC, a proposed indigenous peoples law has been stalled for several years, and though it is now moving closer to adoption, as yet, only CAR has ratified ILO 169<sup>93</sup> and only the Republic of Congo has adopted specific policy measures to implement the intent of UNDRIP<sup>94</sup> Even then, Congo's 2011 indigenous peoples law has remained largely unimplemented, though decrees for the implementation of parts of it were finally passed in 2019. In Cameroon, while the Constitution uses the terms 'indigenous' and 'minorities' in its preamble, it is unclear in actuality to whom these terms refer<sup>95</sup> and the country has not adopted any specific legislation concerning indigenous peoples to elaborate further upon these references.

87 COMIFAC, undated

88 COMIFAC, 2005

89 COMIFAC, 2015

90 See for example, Essama-Nssah, B. and Gockowski, J. J., 2000

91 RFUK, 2013

92 UN, 2007

93 ILO, undated

94 IWGIA, 2012

95 IWGIA, 2012b

A significant problem for indigenous communities in the Congo Basin countries is obtaining recognition of their customary rights to land, even though in many cases it may have been occupied by them for millennia. None of the countries currently have legal provisions or mechanisms for recognising indigenous customary land rights. Closely linked to this problem is also the difficulty of receiving recognition for the collective ownership of property, since most legal systems are based on individual ownership rights.

#### 3.4.4 LACK OF LAND AND RESOURCE SECURITY

Weakness of tenure and resource rights is a critical problem in the Congo Basin, beyond the specific challenges facing indigenous peoples.

The governments of the CAR and DRC hold title to all land within their countries. While a concession can be obtained for an unlimited period of time for specific purposes, three key aspects of it impede the ability of individuals or communities living on or near forested land to obtain such a designation: 1) the administrative requirements for obtaining a concession are burdensome, 2) the holder of the concession must improve the land (which often involves clearing it of forest and cultivating it on a permanent basis), and 3) a payment must be made for the land (in the form of a payment of purchase for the land in CAR, and an annual payment in the DRC).<sup>96</sup> In addition, in DRC, the concession holder must effectively occupy the land as well. Thus for forest communities (especially those who are semi-nomadic), these requirements effectively exclude them from obtaining a concession to land they have traditionally occupied and used.

In Cameroon, Gabon, and the Republic of Congo, the State is the 'guardian' of the land and controls its utilisation. Land ownership is divided into three types: 1) private property of the State, such as State forests; 2) public property of the State which does not belong to anyone, such as airports; and 3) national property, which can be in the public or the private domain. State forest lands in these countries cannot be owned by families or communities, thus effectively excluding forest peoples from land ownership.

As yet, the only possibility for communities to obtain some form of tenure security is through application for a community forest. This possibility now exists in the legal frameworks of Cameroon, Gabon, DRC, CAR and the Republic of Congo, although the latter still lacks implementation texts. The DRC legislation is the most progressive, allowing for 'a community concession of a maximum of 50,000 hectares and on a perpetual basis.'<sup>97</sup> The laws of Cameroon, Gabon and CAR are more restrictive, permitting a maximum area of only 5,000 hectares per community forest. In all three countries, there are limitations on where community forests can be allocated, particularly that they cannot be within areas designated for logging concessions or protected areas (the 'permanent forest estate').

The limitations of the law in Cameroon have been particularly problematic. Community forests there ascribe a limited form of rights for communities, but essentially as leases, which could in theory be cancelled by decree in the event that the land is required for other purposes.<sup>98</sup> As yet, we are not aware of any cases of community forests being impacted by infrastructure projects, or in that event, what procedures would then apply. For example, no community forest legislation confers rights relating to sub-soil resources such as minerals, which are all considered to be the property of the State.

Even if forest communities do not have formal ownership of forested lands, they still require access to such areas to obtain the resources on which they depend. They may rely on the forest for food in the form of plants, animals, and water, and seek wood for cooking and the construction of houses. While all the countries covered by this study do have some legal provision or other recognising (customary) usage rights,<sup>99</sup> in practice such laws are generally not applied, are unknown by those who might benefit from them, are easily dismissed with impunity (such as by park rangers), and can be subordinated to other legislation such as that pertaining to strictly protected areas. In CAR, there is no law that allows people to enter onto State forest-land to take resources for their personal use, and punishment for doing so ranges from 500,000 to five million CAR francs (\$835-\$8,350) and/or one to five years of imprisonment.<sup>100</sup>

96 RFUK, 2014 and RFUK, 2014b

97 RFUK, 2016

98 RFUK, 2014 and RFUK, 2014b

99 See République du Cameroun, 1994; République du RCA, 2008; République du RDC, 2002; République du Gabon, 2001 ; République du Congo, 2008

100 RFUK 2014b



### 3.4.5 ABSENCE OF ADEQUATE OVERSIGHT

A serious challenge for Congo Basin countries is the capacity to manage such large infrastructure projects. Often, the task is entirely outsourced or delegated to a quasi-governmental body or company, with governance oversight limited to fleeting visits, often for primarily political purposes. Interventions or adjustments are often made too late, when problems have already become serious.

The funding of infrastructure projects by international institutions such as the World Bank, and regional organisations such as the African Development Bank, have the potential to provide some level of oversight for energy and transport infrastructure projects when they are involved in funding them.

The safeguard measures of these organisations do provide some guarantee of respect for the environment and the rights of affected persons and communities, as borrowers must carry out environmental and social impact assessments, engage affected persons, consult with indigenous communities, and perform ongoing monitoring of projects.

However, the African Development Bank does not require the consent of indigenous peoples, and the World Bank's safeguards (as modified in 2018) require such consent of indigenous communities in only limited situations.<sup>101</sup> In fact, the World Bank has repeatedly been criticised for failing to monitor and supervise projects,<sup>102</sup> as well as neglecting to adequately protect the human rights of the peoples affected by them.<sup>103</sup> The Bank came under particularly heavy criticism for its failure to listen to concerns about corruption and human rights abuses related to the Chad-Cameroon pipeline project (see Case Study 4.5);<sup>104</sup> and the Lom Pangar Dam project (case study 4.4) illustrates very clearly how the Bank has lowered its standards on human rights and other issues in a bid to secure business from developing country borrowers amid increased competition from other lenders such as China.<sup>105</sup> Consequently, whilst representing an improvement on what would otherwise have happened (including, for example, the preparation of more or less adequate environmental impact assessments), the overall outcomes may not reflect the spirit and letter of the safeguard policies.

Exacerbating this is an overall lack of transparency by Congo Basin governments and funding agencies.

While the agencies are generally more transparent with project information than countries, which often have very weak legislation related to transparency, greater concerns arise when the funding is provided by institutions where there is even less disclosure and monitoring of projects – such as China Eximbank. Moreover, it can be very difficult to ensure oversight and accountability when infrastructure projects are carried out by private companies, due to the lack of adequate monitoring or oversight mechanisms at the governmental level.

### 3.4.6 LACK OF EFFECTIVE REMEDIES

The absence of appropriate governance structures and laws makes it very difficult for affected parties to hold governments, contractors or investors to account. Even where the relevant laws exist, practical difficulties such as the inability to obtain legal assistance, language barriers, costs, remoteness from courts or other judicial mechanisms, and corruption of the same, can add to the difficulties of affected communities in seeking redress.

Some redress is potentially available when international financial agencies have such a mechanism. For instance, complaints have been made to the World Bank Inspection Panel in relation to three of the projects in this report. However, the process is slow and highly onerous, and unlikely to resolve problems before they are well advanced or the project already completed. The African Development Bank also has a complaint process, but it seems to be entirely internal, and is used very rarely. Less than 15 cases have been deemed admissible since 2007, and almost all of them in relation to infrastructure projects – though none from the Congo Basin.<sup>106</sup>

Additional problems can occur where projects are implemented by companies from countries with weak standards on the environment or human rights. The Chinese Ministries of Commerce and Environment Protection issued 'Guidance on Environmental Protection in Foreign Investment and Cooperation' in 2013, which required Chinese businesses to 'fulfil environmental protection responsibility and...safeguard labour rights.'<sup>107</sup> However, these are in the form of guidelines not legislation. So although the Ministry of Commerce amended its 'Regulation on Overseas Investment' in 2014 to require Chinese enterprises investing in overseas businesses to ensure that they 'abide by local laws and regulations of the host country...fulfil social responsibility, do well in environmental and labour protection, and promote local integration,'<sup>108</sup> it is unclear how people who believe their rights have been violated by a Chinese company, are to bring action against them.

101 World Bank, 2017

102 The Inspection Panel, 2009 and IEG, 2010

103 HRW, 201

104 Leibold, A. M., 2011

105 UN OHCHR, 2014

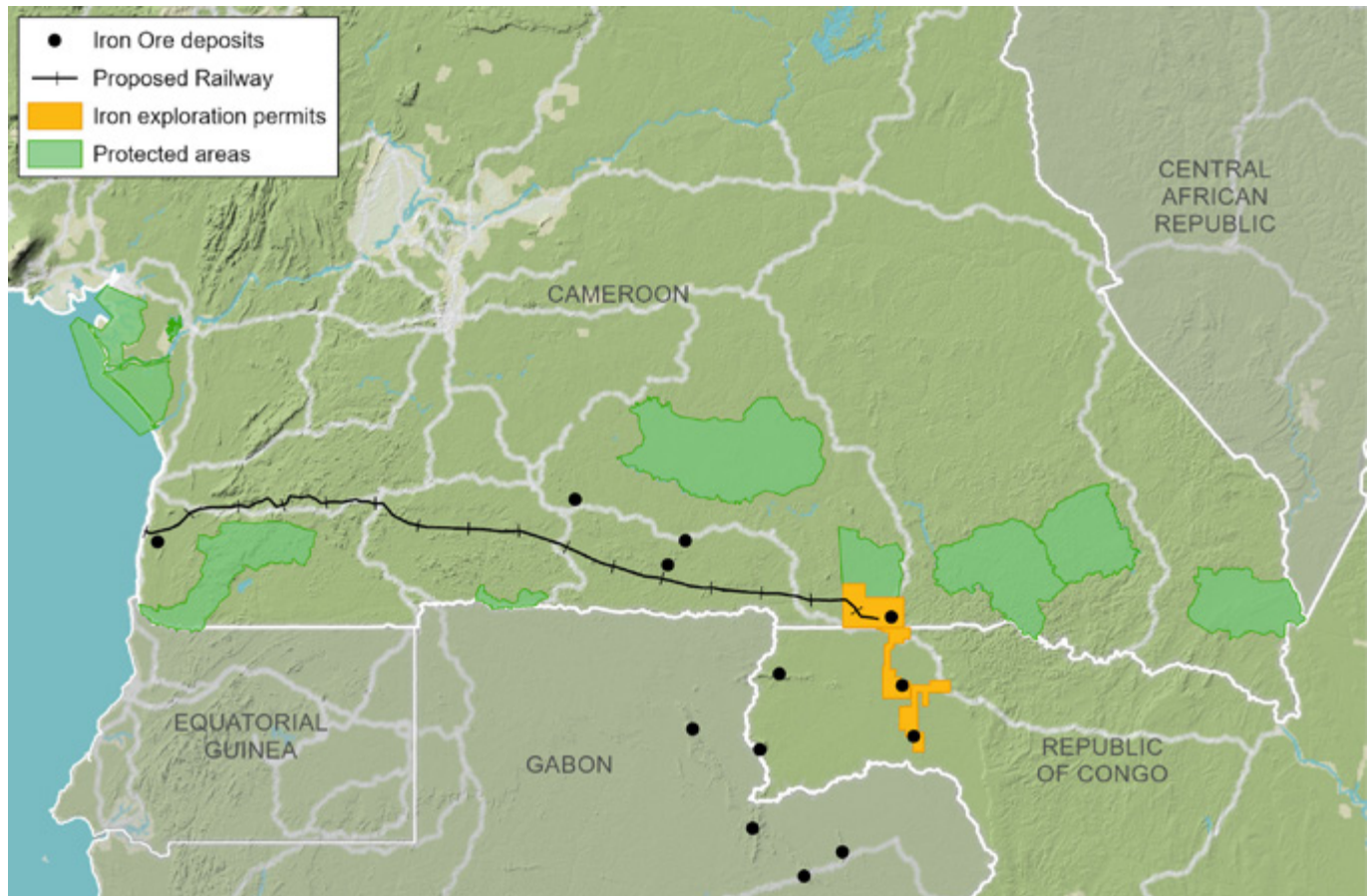
106 AfDB, 2020

107 PRC, 2013

108 BHRRRC, 2015

## 4. CASE STUDIES

### 4.1 MBALAM-NABEBA IRON ORE PROJECT AND ASSOCIATED INFRASTRUCTURE, CAMEROON AND REPUBLIC OF CONGO



Source: RFUK; Ministry of Industry, Mines and Technological Development (via the Forest Atlas of Cameroon); Republic of Congo Ministry of Mines and Geology (via the Forest Atlas of Republic of Congo); The World Database on Protected Areas (WDPA), United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN)

#### 4.1.1 BACKGROUND

The Mbalam-Nabeba Iron Ore Project is an ongoing project on the border of Cameroon and Republic of Congo, with the majority of the scheme in Cameroon. The project is estimated to cost around \$5 billion dollars,<sup>109</sup> and it is intended to comprise of the large-scale opencast mining of iron ore, the construction of roads and railways – especially to link to the newly developed port of Kribi, and a 70 km rail spur line to connect to the Nabeba mines in Congo.

The iron ore deposits are expected to produce around 35 million tonnes per annum for a 35-year period, mostly from the Mbarga, Mbarga South, Metzimevin and Nabeba deposits. In addition, the project potentially includes the construction of a mineral export terminal at Kribi as well, designed for taking bulk iron ore carriers of up to 300,000 tonnes (see Section 4.2).<sup>110-111</sup>

109 Mining Technology, 2016

110 Mining Technology, 2016

111 Mining Technology, undated

## 'A PROJECT TO CHANGE A NATION'

This vast project has had a long and complicated gestation, and as yet remains largely in the realm of potential. It was originally conceived by the Australian mining company Sundance Resources, which holds two key mining concessions in Cameroon and the Republic of Congo. They obtained preliminary environmental approval from Cameroon in July 2010, and completed feasibility studies for stage one of the project in 2011. The Cameroonian Ministry of Mines website reports that the project was put on a 'fast track' with the production scheduled to begin in 2017.<sup>112</sup> However, as a 2012 presentation from Sundance's Cameroonian subsidiary Cam Iron SA pointed out, whilst the project had the potential to transform the country's economy (adding 10 percent to GDP it claimed), it was also entirely dependent on the associated infrastructure being developed, including the railway (traversing Cameroon's entirely forested southern region) and the bulk carrier berth at Kribi Port. Whilst parts of the new Kribi Port have now been developed, work on the bulk carrier terminal has not yet been started, and neither has the railway line. According to one report, the project could also potentially require the development of a hydroelectric dam as well.<sup>113</sup>

In a 2013 presentation of the project by Mr David Meehan (the Project Director and Chief Operating Officer of Sundance Resources Ltd), it was claimed that schools had been built and water wells installed in Mbalam.<sup>114</sup> Cam Iron was said to employ more than 150 Cameroonians in managerial and non-managerial positions, and planned to spend between \$2-\$3 million dollars per year on educational development, capacity building and skills transfer.<sup>115</sup> Giulio Casello (the Managing Director and CEO of Sundance Resources), has also claimed that 88 percent of the total workforce was local.<sup>116</sup> Among the potential longer-term benefits presented by Cam Iron were: the creation of 10,000 direct and indirect jobs once in production, growth and development for local businesses, training and internship programmes for the local workforce, and knowledge transfer and education in the different sectors associated with the project.<sup>117</sup> Other company estimates include the creation of 12,000 jobs during the construction phase of the project, and the long-term creation of 2,000 permanent jobs for the life of the mining operations.<sup>118</sup>



*Sundance's Mbalam camp. Source: thewest.com.au*

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112 Cameroon Ministry of Mines, undated  
113 Hund K and Megevand, C., 2013  
114 Cam Iron SA, 2013  
115 Cam Iron SA, 2013  
116 Cam Iron SA, undated  
117 Cam Iron SA, undated  
118 Cam Iron SA, 2013

#### 4.12 COMPLEX CORPORATE STRUCTURE AND FINANCING

Despite these ambitiously forecasted benefits and holding the leases on the mineral concessions, Sundance Resources has evidently struggled to find partners to commence the project. The project also appeared mired in corruption from the outset, as the wife of the Cameroonian minister who issued the concession agreements in 2009, had acquired a five percent stake in the company.<sup>119</sup> A close associate of President Biya, General Serge Asso'o, also holds a further 9 percent.<sup>120</sup> The mine and associated infrastructure was estimated to require a \$3.3 billion up-front investment. In January 2018, Sundance signed a binding Memorandum of Understanding (MoU) with Tidfore Heavy Equipment Group, a Chinese company specialising in the construction and supply of port handling and offshore exploration equipment. This established a consortium to develop the project, under which 51 percent of Sundance's stake in Cam Iron would be acquired by Tidfore, thereby granting the Chinese company control of the project.<sup>121</sup> Tidfore in turn signed a joint-venture agreement with China Civil Engineering Construction Corporation (CCECC), a subsidiary of China Railway Construction Corporation (CRCC), under which Tidfore would construct the carrier terminal at Kribi and CCECC would construct the railway connecting to it.<sup>122</sup>

In order to finance the railway, the government of Cameroon reportedly intended to double its foreign debt by some \$1.5 billion in 2015.<sup>123</sup> However, absence of funding for the project has continued, and it remains significantly delayed. In 2018, Sundance sold a 50.8 percent share in its business to the AustSino Resources Group Ltd, which in turn had been purchased by Western Australian Port Rail Construction (Shanghai) Ltd., or WAPRC. The complex and opaque financing agreement between AustSino and Sundance was reported in October 2019 as being unlikely to complete until June 2020<sup>124</sup> despite the combined companies' convention with the Cameroonian government having expired in July 2019.

In December 2020 it was reported that the Republic of Congo had cancelled Sundance's mining permits,<sup>125</sup> and in June 2021 that Sundance had asked the International Chamber of Commerce to arbitrate over its dispute with the Cameroonian government for its failure to implement its exploitation permit, saying it believed Yaounde 'now appears to be working with the government of Congo to strip us of our rights to the Mbalam-Nabeba project and grant them to Chinese parties.'<sup>126</sup>

#### 4.13 ENVIRONMENTAL AND SOCIAL IMPACTS

Preliminary environmental approval for this project was given by the Government of Cameroon in 2010, before feasibility studies and impact assessments were conducted or finished.<sup>127</sup> An environmental and social assessment (ESA) was then carried out for Cam Iron by the Cameroonian consultancy firm Rainbow Consult, and published in April 2011, though only the Executive Summary of it was made publicly available. While it refers to 'unavoidable environmental impacts,' it also argues explicitly that these impacts are 'manageable,' and that the Mbalam Project is highly justified on economic and social grounds.<sup>128</sup> It also downplays the impact on local flora and fauna, saying that, 'it is likely that much of the Cameroon forest inventory will ultimately be degraded and depleted of fauna by uncontrolled hunting and forest activities' – whereas the project would help to protect these areas to the north of the concessions by restricting access.

The document claims that 'Cam Iron will work with local communities and NGOs to develop sustainable forest management practices, stating that 'the Project can be a catalyst to improve livelihoods in local [indigenous] Baka, Bagyeli and Bantu communities, reducing reliance on forest resources and with consequent benefits for the sustainability of the forest.' It also includes that the Baka (said to number around 3,000 in the Ngoyla area<sup>129</sup>) and Bagyeli, had expressed concerns over loss of forest resources, lack of employment opportunities and poor health and education provision – as had local Bantu people. In response, the ESA's 'Community Development Plan' promised to support the principle of land tenure for local indigenous and Bantu peoples, to prevent the loss of land and resources to outsiders migrating into the project areas.

119 Le Monde, 2017.  
 120 Le Monde, 2017.  
 121 Business in Cameroon, 2019.  
 122 Journal Du Cameroun, 2018.  
 123 Business in Cameroon, 2015.  
 124 Sundance Resources, 2019.  
 125 Perth Now, 2020  
 126 Mining Weekly, 2021  
 127 Mining Technology, 2016.  
 128 Cam Iron, 2011  
 129 Willis, Venant and Noel, 2016

This would indeed be an essential component for securing the rights and lands of affected indigenous and local communities, yet no specific prescriptions were given for how this would be achieved, and there is no evidence that any such measures have been pursued or forthcoming since. In terms of compensation for lost resources, the ESA states that ‘all impacted stakeholders will be compensated at the Standard rates and Cam Iron will voluntarily pay additional supplementary compensation as appropriate. MINDAF (Ministry of Territorial Administration and Decentralisation) will pay compensation at standard rates for crops, forestry products, wild resources, fish, buildings.’ However, the official compensation rates and procedures are known to be problematic in terms of underestimating land value – such as disregarding fallow fields, which can be several times larger than those under cultivation at any given time – when assessing loss of farmland (see also case study 4.5).

Cam Iron claimed in its 2011 ESA, that consultations had been carried out with the different stakeholders, including local communities (Mbalam, Baka, Lolabe), indigenous populations, village chiefs, government, NGOs, industries, and parks and reserves managers.<sup>130</sup> The ESA proposed to establish ‘strategic funding of Community Development, Indigenous People and Wildlife Conservation programmes from the Cam Iron Sustainability Fund,’ receiving 0.5 percent of after-tax profit, expected to be between \$3-\$5 million a year during operations.’ Cam Iron proposed that it would allocate around \$1.3 million a year from this fund to key community developments, wildlife protection, and indigenous people’s programmes.

The forest in the area of the mine is described as ‘evergreen, camerouno-congolese type forest with very high species diversity.’<sup>131</sup> The ESA notes that ‘The estimated 40 square kilometres of [forest] clearing at the mine is about 0.02 percent of the 170,000 km<sup>2</sup> area of similar intact adjacent forest.’ Elsewhere, the report claims that there will be a 7,500 hectare ‘clearing footprint over the Life of the Mine,’ but compares this with the 160,000 hectares of forest which the company would establish as an ‘offset’ by acquiring an adjacent ‘sustainable’ logging concession (Unité Forestière d’Aménagement #10034).

Similarly, the 2011 ESA claims that the mine’s estimated 17 million tonnes of carbon dioxide emissions over the life of the mine would be offset by the saving of some 200 million tons of CO<sub>2</sub> by ‘protecting’ UFA10034. These claims were dismissed in a study conducted for the Cameroonian ‘Publish What You Pay’ coalition, which found that not only were the potential carbon savings of the offsets greatly overstated, but that the scheme would involve a considerable loss of potential revenue to the Cameroonian authorities, and price carbon at well below market values.<sup>132</sup> WWF, the main conservation player in the landscape, broadly supports the approach of offsetting, and says that within the area it aims to ‘Steer mining and infrastructure projects to apply a “no-net loss or net gain of biodiversity” policy.’<sup>133</sup>

Whilst the company stated the first 10 years of production would consist of the exploitation of high-grade hematite which would be ‘shipped as mined,’ the second decade was to involve lower-grade itabirite extraction, which would require on-site processing. This would involve not only a storage facility and wastewater storage covering an estimated 1,000 hectares, but also ‘necessitate the use of third-party hydropower rather than the on-site diesel or heavy fuel oil power generators.’<sup>134</sup> While the ESA indicates that this dam would potentially be to the south-west of the Nki National Park, the only substantial river in that vicinity is the Dja, which runs through the centre of the park, to its border with the Congo. The environmental impact of this hydropower supply would, the ESA states, be subject to a second ESA, to be carried out in the first operational phase of the mine.

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130 Cam Iron, 2011

131 The ESA also notes that ‘The estimated 40 square kilometres of [forest] clearing at the mine is about 0.02 percent of the 170,000 km<sup>2</sup> area of similar intact adjacent forest.’ Cam Iron, 2011

132 CamerounWeb, 2014

133 WWF, 2019

134 Cam Iron SA, 2011

The ESA claims that ‘The proposed mining area at Mbalam has been designated for mining by the Cameroon Government and is located outside of proposed conservation areas.’<sup>135</sup> However, the concessions held by Sundance in Cameroon and Congo, extending contiguously from roughly 150 kilometres north to south, occupy and dissect the centre of the Dja, Odzala and Minkébé tri-national forest area (TRIDOM), described by WWF as a biodiversity hotspot and ‘pristine landscape, covering in total some 190,000 square kilometres.’<sup>136,137,138</sup> On the Cameroonian side, the Cam Iron concessions represent a significant part of the southern area known as the Ngoyla-Mintom block. This has long been proposed as a potential conservation zone, but in fact shows both the failures of Cameroon’s chaotic land zoning and allocation procedures, as well as the serious limitations of REDD+ projects. One study in 2012 found that parts of the Ngoyla-Mintom block were subject to as many as eight different and conflicting land use designations or allocations.<sup>139</sup>

From 2011-2017, two projects in Ngoyla were run by WWF to reduce carbon emissions and establish community protected areas, with \$3.1 million EC/USAID funding and \$3.5 million from the World Bank/GEF. This resulted, according to WWF, in the conversion of the unallocated logging concession (UFA10034) into the 156,000 hectare Ngoyla Wildlife Reserve (which would be the source of offsets for the Mbalam project), and the establishment of nine community forests covering 35,000 hectares.<sup>140</sup> However, the overall aim of efforts to protect the area took a serious blow in 2014, when nearly half of it was allocated as logging concessions (UFA #009-001 and #009-002), and the project soon drew criticism for ‘hurried’ consultations with local communities and failing to properly accommodate Baka culture into the livelihood programme.<sup>141</sup> In 2017, local Baka people complained of being intimidated, threatened, and beaten by eco-guards for entering the new Ngoyla Forest Reserve.<sup>142</sup> In 2019, Forest Peoples Programme found that the Government and WWF ‘had not followed a proper process of free, prior and informed consent in the creation of the Reserve and that ‘benefits’ for communities have been inadequate or ineffective. This has resulted in impoverishment, social hardship and cultural loss for the communities, who have received no compensation for the loss of their lands.’<sup>143</sup>



*Indigenous Baka women carrying out traditional livelihoods activities in the forest, foraging for essential food and medicine. Source: RFUK*

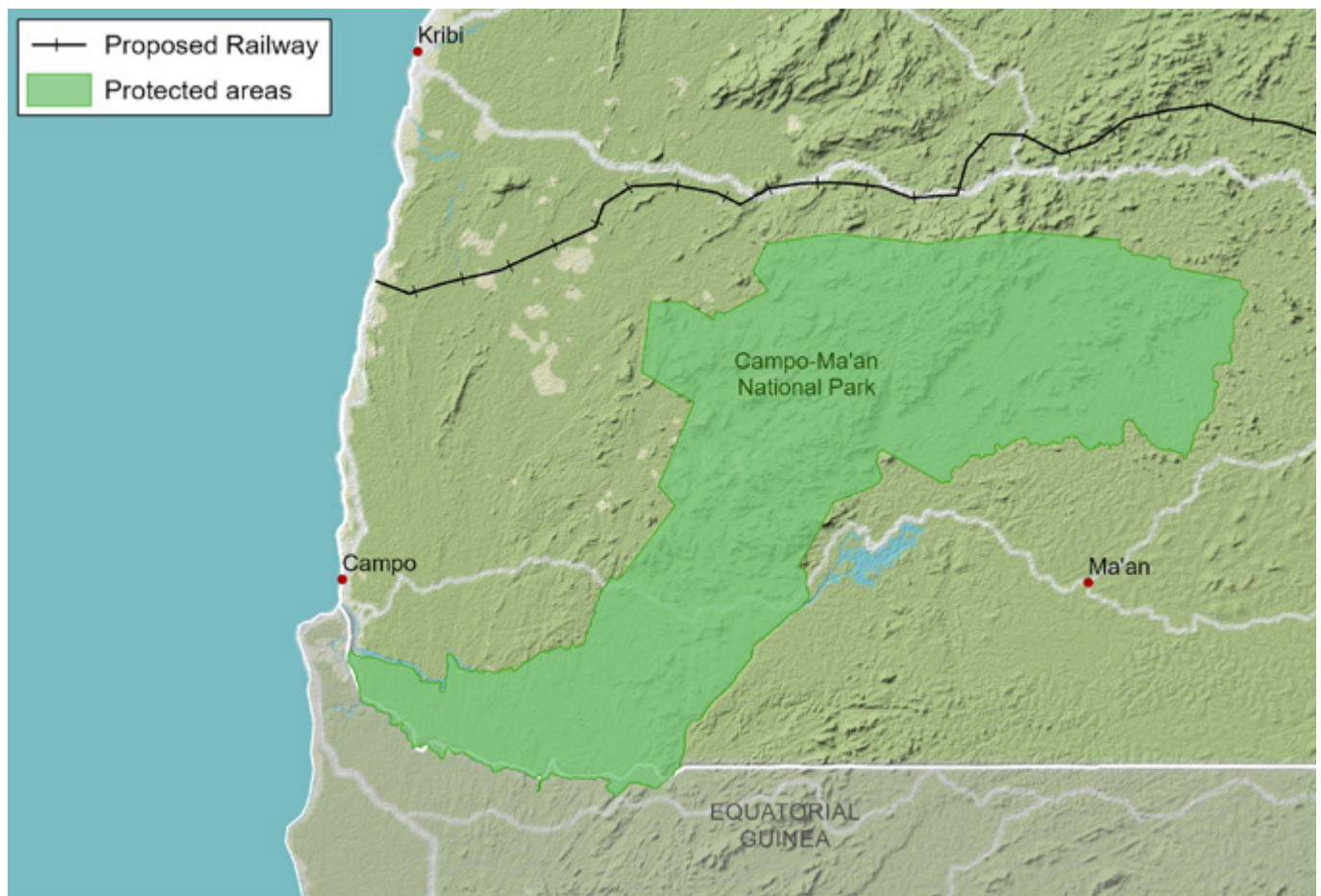
- 135 Cam Iron, 2011  
 136 WWF Gabon, 2012  
 137 WWF, 2019  
 138 De Wachter et al, 2008  
 139 WWF, CED and REFLUFA, 2012  
 140 WWF, undated (a).  
 141 Willis, Venant and Noel, 2016  
 142 Reuters, 2017  
 143 FPP and Okani, 2019

#### 4.14 INDIRECT IMPACTS OF THE PROJECT

The 510-kilometre railway link to Kribi (excluding the possible 70-kilometre extension to the Nabeba iron deposits in Congo) and its adjacent service road, would require a corridor of around 100 metres wide, and subsequently the direct clearance of over 5,000 hectares of forest. Cam Iron's ESA states that 'The proposed transport corridor traverses large areas of increasingly degraded forest as it runs from east to west. The [human] population in these forests is low and concentrated along roads.'<sup>144</sup> Whilst it is true that much of the forest region traversed by the route has been selectively logged at least once, and is subject to increasing conversion to smallholder and extensive agriculture, the area still holds much value in terms of biodiversity and environmental services, including for carbon storage and for communities of both Bantu farmers and Baka and Bagyeli hunter-gatherers.

A modern transport artery consisting of both road and rail would increase the likelihood of large-scale agricultural investors moving into the area and converting the remaining forest permanently. As Weng et al. have pointed out, 'The roads and railways being constructed to access iron ore in south-east Cameroon, northern and central Republic of Congo... all pass through areas that are suitable for a diversity of tropical crops. Infrastructure being constructed for these new mines is likely to trigger accelerated development of oil palm, soy, sugar cane and local food crops.'<sup>145</sup> Weak governance (either deliberately or inadvertently) is likely to allow outside investors to grab land along the route, thus disadvantaging small-scale producers and subsistence farmers. These problems have already been very evident in the early stages of the development of the linked Kribi Port (see the following case study).

**Figure 3: Kribi Port development and likely rail route in relation to Campo Ma'an National Park**



Source: RFUK, *The World Database on Protected Areas (WDPA)*, United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN)

144 Cam Iron, 2011

145 Weng, L. et al., 2013

The proposed railway route would pass close to the Mengers Sanctuary, which was established in 2001 to protect the area's gorilla population, and even closer to the proposed Kom National Park. Further west, according to WWF, the biodiversity of Campo Ma'an National Park would also likely be threatened by the railway link and the Kribi Port development.<sup>146</sup> The Park, a 264,064 hectare reserve in southern Cameroon, was designated by the government in 1999 as compensation for the negative impacts of the Chad-Cameroon Oil Pipeline Project. Concerning the impacts of the necessary port facilities at Kribi, the ESA says that Cam Iron 'is supportive of a plan by the Cameroon Government with the support of the World Wildlife Fund (WWF) to establish a marine park south of the proposed port facility.'

#### 4.15 REDD+ AND MBALAM

Astonishingly, the proposal for a huge World Bank-backed jurisdictional REDD+ programme covering much of Cameroon's southern forests, including the entire area covered by both the mine, railway and other infrastructure, pays scant attention to the Mbalam project<sup>147</sup> – though Cam Iron is listed as a potential purchaser of carbon offsets from the UFA 10034 conservation concession. Concerning the impacts of the railway link to Kribi, the document states that 'Proper planning that reduces avoidable impacts on forests could thus generate emission reductions as compared to the business as usual scenario. Land use planning will be undertaken with active participation of ministries of planning, environment and forestry and wildlife, civil society organizations, and support local government empowerment and governance.'<sup>148</sup> Direct emissions from the rail route are addressed in the deforestation assessment, which estimates 40 percent less forest loss than even Sundance itself said would occur, and then proposes that the estimated 3 million tonnes of carbon dioxide emitted could simply be offset with a 1,700 hectare okoume plantation. The direct impacts of the mine itself are not considered at all, and neither are any secondary effects or even the associated infrastructure.

#### 4.16 CONCLUSIONS TO THE CASE STUDY

Despite expected economic and development benefits, the project would undoubtedly bring major environmental and social risks, both directly and indirectly because of the 580-kilometre railway. Such transportation infrastructure can unleash a Pandora's box of environmental problems since, as Professor Bill Laurance points out, they inevitably open up previously intact tropical forests to a host of extractive and economic activities.<sup>149</sup> As yet, even the direct impacts of the mine have not been properly considered, nor mitigation plans developed. The indirect impacts, which could be far greater still, remain largely unassessed, if somewhat speculated on. The limited attempts so far, to develop mitigation measures in the Ngoyla-Mintom region of Cameroon, seem primarily to have served to increase the extent of protected areas according to WWF's grand vision for the TRIDOM area. The benefit for local communities seems much less evident, especially in the case of the indigenous Baka, who seem trapped between the outright destruction of the mine, restrictive protected areas, and logging concessions where hunting is increasingly proscribed. The Mbalam-Nabeba project is highly likely to bring tremendous pressure for very large-scale land use change, for which the authorities have little capacity or perhaps even willingness to address.

146 WWF, 2018.

147 FCPF, 2016

148 Cam Iron, 2011

149 Laurance, W., 2014



## 4.2 KRIBI PORT, CAMEROON



Source: RFUK

### 4.2.1 BACKGROUND

Kribi Port is an ongoing large infrastructure project on the Gulf of Guinea in Cameroon's South Province. It is used here to refer to a number of developments centred around a port to the south of Kribi, primarily being developed for the loading of iron ore from the Mbalam-Nabeba Project (see Section 4.1 above), but which could become the largest deep-sea port in West Africa. Construction is being overseen by the state-run China Harbor Engineering Corporation (CHEC).<sup>150</sup> and \$1.1 of the \$1.3 billion first phase cost is being provided by the Export-Import Bank of China, which won the contract by providing free surveys and technical studies.

The first phase of the Kribi Port project was completed in 2018, with the container terminal officially operational. The second phase<sup>151</sup> began in 2017, and was supposed to have been completed by 2021, but has been beset with delays.<sup>152</sup> This will double the container port's quay and capacity, and is being financed with a further \$673 million from the China Eximbank. This development is also within the area of the proposed FCPF REDD+ project for southern Cameroon.<sup>153</sup>

150 Cameroon Concord News, 2018

151 International Construction, 2017.

152 EcoMatin, 2020

153 FCPF, 2016

Once complete, the area is intended to comprise 20 berths, oil and gas terminals, an industrial zone to process timber, cotton and cocoa, and roads and railways connecting the port to Cameroon's main cities and mines in the interior.<sup>154</sup> In total, Chinese Banks and enterprises have financed around 85 percent of the project.<sup>155</sup> An additional 25-year concession to develop and operate a container terminal has also been awarded to a consortium led by the French group Bolloré Africa Logistics, and a new residential zone is expected to accommodate approximately 300,000 inhabitants by 2040.<sup>156</sup>

Kribi Port is a significant project of the so-called seven-year 'Greater Achievements' plan and the 'Vision 2035' of President Paul Biya.<sup>157</sup> It is intended to foster economic growth by complementing the inefficient Douala Port and becoming a logistics platform in the wider Gulf of Guinea. It will serve to greatly expand capacity for commodity export, not only from the distant interior of Cameroon, but also the Republic of Congo, Equatorial Guinea, Gabon, CAR and Chad. According to the Japan Times, one of the first shipments leaving the new port was 3,000 logs from the Central African Republic.<sup>158</sup>

The Japan Times also reported that 'Since the initial agreement to build the port at Kribi was signed in 2009, ten Chinese firms, including CHEC and its holding company, China Communications Construction Co., have obtained concessions to mine bauxite, iron ore and other minerals.'<sup>159</sup> The project might also involve a terminus to accommodate 300,000 tonne bulk carriers for the intended production from the huge iron ore development 500 kilometres east at Mbalam<sup>160</sup> (see 4.1 above). It will also stimulate other related infrastructure developments, including a \$453 million access road, and the upgrading of the 200-kilometre road to the capital Yaounde, which was agreed in December 2019.<sup>161</sup>



*Kribi Deepwater Port and associated infrastructure. Source: Google Maps, Gerald Kiku, 2021*

154 RenzTichafogwe, T and Zephania Nji, F, 2018

155 Shannon Tiezzi, 2015

156 Romain Ngueguim et al., 2017.

157 Republic of Cameroon, 2017

158 The Japan Times, 2018

159 The Japan Times, 2018

160 Mining Technology, 2016

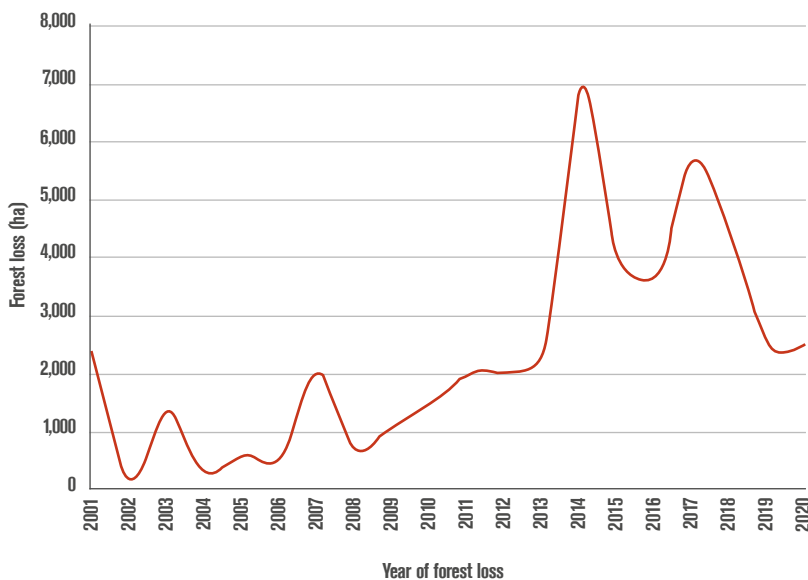
161 Cameroon Concord News, 2019

#### 4.2.2 ENVIRONMENTAL AND SOCIAL IMPACTS

No environmental and social assessments were conducted by the Cameroonian government or China Eximbank until the port was already partly completed, despite requirements under Cameroonian law<sup>162</sup> and concerns about its impact on the area’s rainforests, raised by environmentalists well before bulldozers began clearing land at the end of 2010.<sup>163</sup> By the time the whole project is due to be completed in 2040, an estimated 26,000 hectares could be cleared for both the port and the residential area alone,<sup>164</sup> and there do not appear to have been any attempts to ‘offset’ these losses with protected zones elsewhere.

Analysis by RFUK has shown that there was a marked uptick in deforestation coinciding with the start of construction work on the port, and then later on with related infrastructure. The Hansen tree loss data series were used to assess annual deforestation in the area outlined in red in Figure 4 below. As well as the clearance of the road corridor northwards from the new port, notable in the satellite images of the region after 2017 are numerous large clearances inland from both Kribi Port and the town.

Figure 4: Annual tree loss in proximity to Kribi Port, 2008-18 (hectares)



Area on which deforestation analysis has been conducted

Source: Hansen/UMD/Google/USGS/NASA and Planet imagery

162 Republic of Cameroon, 1996  
 163 The Japan Times, 2018  
 164 Romain Nguemoum et al., 2017

The project has also substantially impacted local populations, with the displacement of at least 5,000 people, and increased migration to urban areas of Kribi. A study conducted in 2017, apparently as part of an environmental and social impact assessment (ESIA), found that 'The kribi deep sea port area is mostly composed of people that rely on the sea and forest for their livelihood and have fishing and forest product gatherers as their main occupation. The clearing of the forest will seriously affect their life.'<sup>165</sup> One instance includes the 300-person village of Lolobe, which was destroyed. A \$36 million compensation package for displaced communities was agreed by the government in 2010, but it is alleged that a third of it was embezzled by corrupt officials.<sup>166</sup> In one reported case from Lolobe, a fisherman who will lose his home to Phase II of the project was offered 300 euros compensation for a plot measured as nine by eleven metres, but occupied by his household of seven people.<sup>167</sup> According to Grégoire Mba Mba, former mayor of Kribi and spokesperson for local communities, 'Many displaced people still complain they have not received indemnities.'<sup>168</sup>

The population of Kribi town is expected to double to around 100,000 within a few years – though it has already been growing rapidly since the mid-1980s.<sup>169,170</sup> One traditional chief of a nearby community described in 2016 what was happening in the zone affected by the Port as the 'organised theft' of land. Politicians and business people were partnering with local customary landowners to help formally register their land – in exchange for 50 percent of the plot.<sup>171</sup> In other cases, landholders were simply cheated out of their land with contracts they did not understand, and through cash payments and alcohol. Food prices and rents have been rising, forcing some residents to move away.<sup>172</sup> The experience for local people is reported to evoke memories of the dashed expectations of the World Bank-funded Chad-Cameroon Pipeline (see Section 4.5).

In terms of employment, while the Cameroonian government claimed that the long-term investments would create around 20,000 jobs, half of the 1,125 jobs created during the construction phase were given to Cameroonians migrating from other areas of the country, and many of the remaining jobs went to Chinese workers. This has led to tensions between Chinese workers, locals and other Cameroonian nationals.<sup>173</sup> Local community leaders also point to the lack of preparation for Cameroonian workforce to fill other jobs after construction is finished. Conversely, there are concerns by Chinese backers about the availability of adequate skilled local labour.<sup>174</sup>

As with many of the projects described in this report, the wider development of the Kribi Port industrial zone has proceeded much more slowly than originally promised by both government and project investors. Some components of it – such as a railway line linking to Kribi, and an aluminium smelting plant initially planned by Rio Tinto and Aluminium du Cameroun at Edea – have already fallen through.<sup>175</sup> Nevertheless, Kribi Port itself will potentially still transform a 20-kilometre strip of Cameroon's coastline into a major transport and industrial hub. Its most significant impact though, will probably be felt along the hundreds of kilometres of inland routes, along which resource exploitation and land conversion will occur. In 2020, it was reported that the trade of goods with the Central African Republic through the port, had increased by nearly 70 percent, with the product most exported being 'timber and its derivatives.'<sup>176</sup>

165 Romain, N et al., 2017.

166 Cameroon Concord News, 2018,

167 Stäritz, A., 2016

168 Divine Jr., N., 2015

169 Divine Jr., N., 2015

170 RenzTichafogwe, T and Zephania Nji, F, 2018

171 Stäritz, A., 2016

172 Divine Jr., N. 2015

173 Divine Jr., N. 2015.

174 IPS news, 2013

175 Business in Cameroon, 2014

176 Business in Cameroon, 2020

## 4.3 MÉKIN DAM, CAMEROON



Source: RFUK

### 4.3.1 BACKGROUND

The Mékin Dam is a 15MW hydro-electrical power dam, and a 33 km power line, intended to strengthen the energy supply of Cameroon's southern electricity network, as the country suffers from constant energy deficit and frequent power cuts. It was originally claimed that it would supply power to households in the eight municipalities of the Dja and Lobo districts,<sup>177</sup> but in 2018 it was revealed that 1MW (increasing eventually to 4MW or about a quarter of the dam's output) would be sold to the Sud Cam Heavea company,<sup>178</sup> whose new rubber plantation further

south involved the clearfelling of more than 10,000 hectares of rainforest between 2011 and 2018.<sup>179,180</sup> The state-owned and Cameroon-based Société Mekin Hydroelectric Development Corporation (Hydro-Mekin), set up by presidential decree in 2010, was created to oversee construction and operation of the dam,<sup>181</sup> and construction by the China National Electric Engineering Corporation was completed in April 2018 after seven years of work.<sup>182</sup> As with the Mbalam mine/railway and the Kribi Port development, the Mékin Dam is also located within the proposed FCPF jurisdictional REDD+ programme for southern Cameroon.<sup>183</sup>

177 Business in Cameroon, 2017  
 178 Energies-Media, 2018  
 179 Greenpeace, undated  
 180 Energies-Media, 2018  
 181 Energies-Media, 2018  
 182 CNEEC, 2015  
 183 FCPF, 2016

Originally, the dam reportedly cost around \$40 million to build, 85 percent of which was provided by the China Eximbank, with the remaining amount financed by the Cameroonian government.<sup>184</sup> More recently however, officially released Chinese figures report that the full cost of the dam was over \$72 million, of which '\$49 million would come through a concessional loan under a framework of governmental cooperation between China and Cameroon.'<sup>185</sup> Concerns about the propriety of the management of the project led the government to commission an 'in-depth audit on the dysfunctions noted in the implementation of the Mékin hydroelectric project'<sup>186</sup> in 2016, though the results of this seem never to have been publicly released.

### 4.3.2 ENVIRONMENTAL AND SOCIAL IMPACTS

Hydro-Mekin's website claims that the project 'has obtained environmental clearance, that is to say that all environmental impact studies have been completed,'<sup>187</sup> but ESIA's were not made public, and are still not available on the company's website or anywhere else (their page concerning 'Social and Environmental Activities' remains completely blank). According to a government account, Hydro-Mekin simply refused to produce an implementation report for the ESIA.<sup>188</sup> Several monitoring missions were conducted by various government agencies, all of which 'ended with the formulation of recommendations to Hydro Mékin, which decided not to implement them.'

One of the main impacts was the clearing of the catchment basin's forest cover. According to one 2015 news report, 'Wood salvage operations on the construction site of the Mékin Dam...have already enabled the removal of 26,850 hectares of resources,'<sup>189</sup> 7,850 hectares of which was from the catchment area, and the other 19,000 hectares from the designated area for energy infrastructure. In fact, the original EIA indicated that around 4,500 hectares would be flooded (and thus need to be cleared of trees first), but an official map revealed that the government had designated over 27,000 hectares as a 'security zone' for the dam (and thus subject to clearance).<sup>190</sup> Parts of the area were contracted to logging companies for the short-term removal of timber ('vents de coupes'), including 4,800 hectares allocated to the South Forestry Company (SFC). However, field investigations in 2013 by the Centre pour l'Environnement et le Développement (CED), and by Greenpeace in 2014 and 2015, found that logging under one of these contracts was taking place well beyond the inundation zone and in an area exceeding the 1,600 hectares granted.<sup>191</sup>

In terms of its impact on local people, the project very quickly ran into problems. Hydro-Mekin, working with the relevant authorities, was required to ensure the proper resettlement of the villages of Bengbis, Endom and Somalomo, which would be flooded and displaced by the dam's impoundment.<sup>192</sup> Studies for their relocation were reportedly conducted, though not made publicly available, and the company allegedly paid \$7.4 million to local populations impacted by the project.<sup>193</sup>



*The Mékin Dam was finally commissioned by the Cameroonian government in May 2019.  
Source: [businessincameroon.com](http://businessincameroon.com)*

184 Le360 Afrique, 2017  
 185 AidData, 2017  
 186 Business in Cameroon, 2016  
 187 Hydro-Mekin, undated  
 188 République du Cameroun, 2017  
 189 Cameroonweb.com, 2015  
 190 Greenpeace Nederland, 2015  
 191 Greenpeace Nederland, 2015  
 192 Energies-Media, 2017  
 193 CamerNews, 2015



*Premature inundation of the dam led to flooding of farmlands and routes still used by local people for reaching markets. Source: Iteconomy.it*

However, in January 2017 the Cameroonian press reported that with the 'delays observed in the process to relocate the populations affected by the project, we learned during a recent ground visit by the local public authorities, environment issues are preventing the start of the turbines.'<sup>194</sup> Premature flooding of the reservoir before preparatory works had been carried out then led to the flooding of communities, and the inundation of two bridges essential to local passage across the Dja and Lobo rivers. After flooding had already occurred, an inter-ministerial mission visited the site and reported on the problems found, agreeing only in May 2017 'a schedule of infrastructure construction works and resettlement of people.'<sup>195</sup> In June, tenders were issued for the re-construction of the now submerged bridges and access roads.<sup>196</sup>

In 2018, field investigations by the NGO Fondation Camerounaise de la Terre Vivante and its partners found multiple impacts from the dam.<sup>197</sup> These included: the disappearance of market garden crops and traditional fishing due to the increase in water flows; the destruction of cocoa and cassava plantations caused by soil saturation; the loss of income from the exploitation of fruit trees (wild mango) in the flooded area; the disappearance of some medicinal plants in the deforested area; the loss of areas for women's livelihoods and cultural use; increased human-wildlife conflict due to the flooding of several animal habitats; the proliferation of mosquitoes and an increase in the rate of malaria; and the low mobility of the populations due to the flooding of the bridges over the Dja and Lobo – making it impossible to transport agricultural products to the markets of Bengbis and Meyomessala.<sup>198, 199</sup>

It appears that even if relocation and compensation measures did exist in the environmental and social management programme (ESMP), there has been a considerable delay or outright failure to apply them – particularly those relating to social impacts. None of the following foreseen mitigation measures were implemented: informing the local fishing population and providing training on fishing the planned reservoir after its filling; supporting them in the acquisition of equipment for deep-water fishing; informing people about the risk of drowning and electrocution before the reservoir was filled (a case of drowning in the village of Kam has been reported); officially opening the road connecting the two Arrondissements of Meyomessala and Bengbis before the end of the works; or reconstruction of affected infrastructure before completion of works.<sup>200</sup>

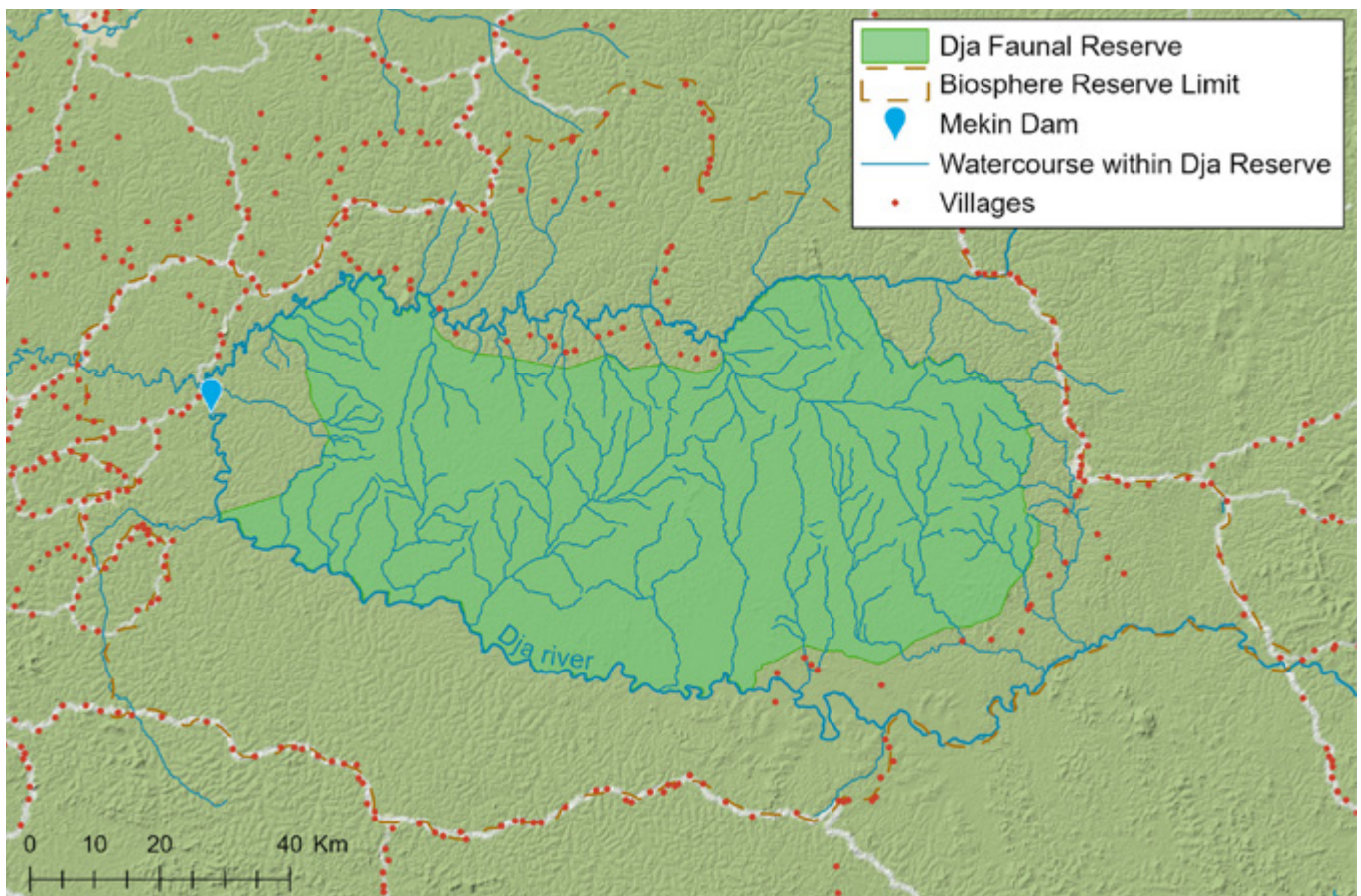
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194 Business in Cameroon, 2017  
195 Le360Afrique, 2017  
196 Energies-media, 2017  
197 FCTV, 2018  
198 Le360Afrique, 2017  
199 FCTV, 2018  
200 FCTV, 2018

The delay in the implementation of ameliorative measures has reportedly undermined the livelihoods of the communities bordering the dam, many of whom were already suffering the impacts of the nearby Sudcam rubber plantation. The poor living conditions (malnutrition, worsening health, lack of income to send children to school, the uncertainty of displacement) have promoted greater wildlife poaching as a survival strategy in this locality, and now pose a greater risk to the integrity of the adjacent Dja Reserve, a World Heritage Site.<sup>201</sup>

At the end of 2019, the problems had still not been resolved. The turbines were finally turned on in April 2019, but the dam was shut down a few months later because of a technical fault.<sup>202</sup> Reporting on the failure, the Minister of Water and Energy, Gaston Eloundou Essomba noted in particular ‘the delays related to the finalization of the redevelopment work on the flooded bridges’ as well as the ‘non-implementation of the Environmental and Social Management Program.’<sup>203</sup> The dam reportedly became fully operational on 15 January, 2020,<sup>204</sup> but it appears the amelioration works and resettlement have still not been completed. In the Forest Carbon Partnership Facility’s document, for the proposed large jurisdictional REDD+ project across southern Cameroon, there is no reference whatsoever to the Mékin Dam nor its impacts on the surrounding forest, including the dam’s location – even though it was being constructed at the very time the project was being developed.<sup>205</sup>

**Figure 5: Mékin Dam in relation to the Dja Biosphere Reserve**



Source: Rainforest Foundation UK/MappingForRights, Open Street Map, The World Database on Protected Areas (WDPA), United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN)

201 FCTV, 2018  
 202 Energy Mix Report, 2019  
 203 Le360Afrique, 2017  
 204 Mbajon, V, 2019  
 205 FCPF, 2016



## BOX 2: THE DJA FAUNAL RESERVE - WORLD HERITAGE IN DANGER

It is not known whether the potential wider impacts of the Mékin Dam were ever considered in the ESIA, which has never been made publicly available. The dam is located close to the Dja Faunal Reserve (DFR), a UNESCO World Heritage Site into which many millions of (largely EU) donor funds have been put over the past two decades. The World Heritage Centre describes DFR's 'universal value' as 'one of Africa's most species-rich rainforests....including the habitat of numerous remarkable animal and plant species, many of which are globally threatened.'<sup>206</sup> In 2012, a joint mission by the World Heritage Committee (WHC) and the International Union for Conservation of Nature (IUCN) determined that the Mékin project would directly affect the ecological integrity of the DFR in the form of flooding, as well as the facilitation of: access, spontaneous development, illegal forestry and agricultural activities, hunting, fishing, and poaching.<sup>207,208</sup> The WHC concluded that the measures proposed in the ESMP were clearly insufficient, and requested that the Cameroonian government 'Suspend the Mékin Dam work until the appropriate measures to mitigate the direct and indirect impacts on the Outstanding Universal Value' had been submitted to it for inspection, warning that, failing this and other measures, the DFR could be added to the List of World Heritage in Danger.<sup>209</sup>

This sanction however, has repeatedly been postponed. In 2013, the WHC was evidently convinced of the adequacy of the Cameroon government's assurances that it was 'involved in a multiparty discussion between stakeholders within the territory of the Biosphere Reserve.'<sup>210</sup> But in 2015, it noted that still no information had been provided by the Cameroonian government 'on the specific measures taken to reduce and mitigate the significant potential direct and indirect impacts' on the DFR from the dam.<sup>211</sup> In 2016, following another mission to the area, the WHC again noted that 'The construction of the Mékin Dam represents a major threat to wildlife and habitat within the property. Construction work is almost completed without any measures to mitigate the negative impact being undertaken, as the Hydro Mékin Society does not have an environmental expert in its team to coordinate the implementation of the [ESMP] of the project.' It again expressed its 'deep concern' about the Mékin project, but again also declined to add the DFR to the World Heritage in Danger list.

In 2017 – after the dam had been closed, parts of the forest flooded, and roads cut off – the WHC noted that the Cameroonian government had not responded to its previous year's entreaties. It stated that the 'Outstanding Universal Value of the property would be seriously threatened, in the event that the Mékin Dam was completed without any mitigation measure in place to reduce the negative impacts of this project.'<sup>212</sup> – noting that it was clear that the ESMP had not been implemented. In 2018, the WHC noted that, according to the Cameroonian government 'The Directorate of the Hydro-Mekin Dam project is taking measures to limit the impacts on the populations, notably by paying out compensation. Technical studies are ongoing to evaluate the environmental aspects of the dam'<sup>213</sup> – even though the EIA was supposed to have been completed in 2010 and was still not being implemented, as the WHC had repeatedly noted. Again it repeated similar concerns as in previous years, and similar threats to list the DFR as 'in danger' unless the Mékin ESMP was implemented.

In June 2019, the WHC reported that 'While efforts towards limiting the negative social impacts of the Mékin Hydroelectric Dam on the local communities are noted, no progress seems to have been made in addressing the environmental impacts.'<sup>214</sup> Again, instead of listing the DFR as 'in danger,' the WHC simply repeated the requests for the ESMP to be implemented, as it had done annually since 2012. In 2021, the WHC reported that a '2020 UNESCO Advisory mission to the Mékin Hydroelectric Dam found 'that the ESIA did not assess the project's impacts on the OUV, and that the construction of the dam generated numerous environmental damages.'<sup>215</sup> The report recommended the adoption of a draft decision by the WHC, 'Expressing its great concern' about this and the fact that the dam had caused 'significant environmental damage....urging the State Party to implement all the recommendations of this mission.'<sup>216</sup>

206 UNESCO, undated.

207 Greenpeace Nederland, 2015

208 UNESCO, 2012

209 UNESCO, 2012

210 Greenpeace, 2015

211 UNESCO, 2015

212 UNESCO, 2017

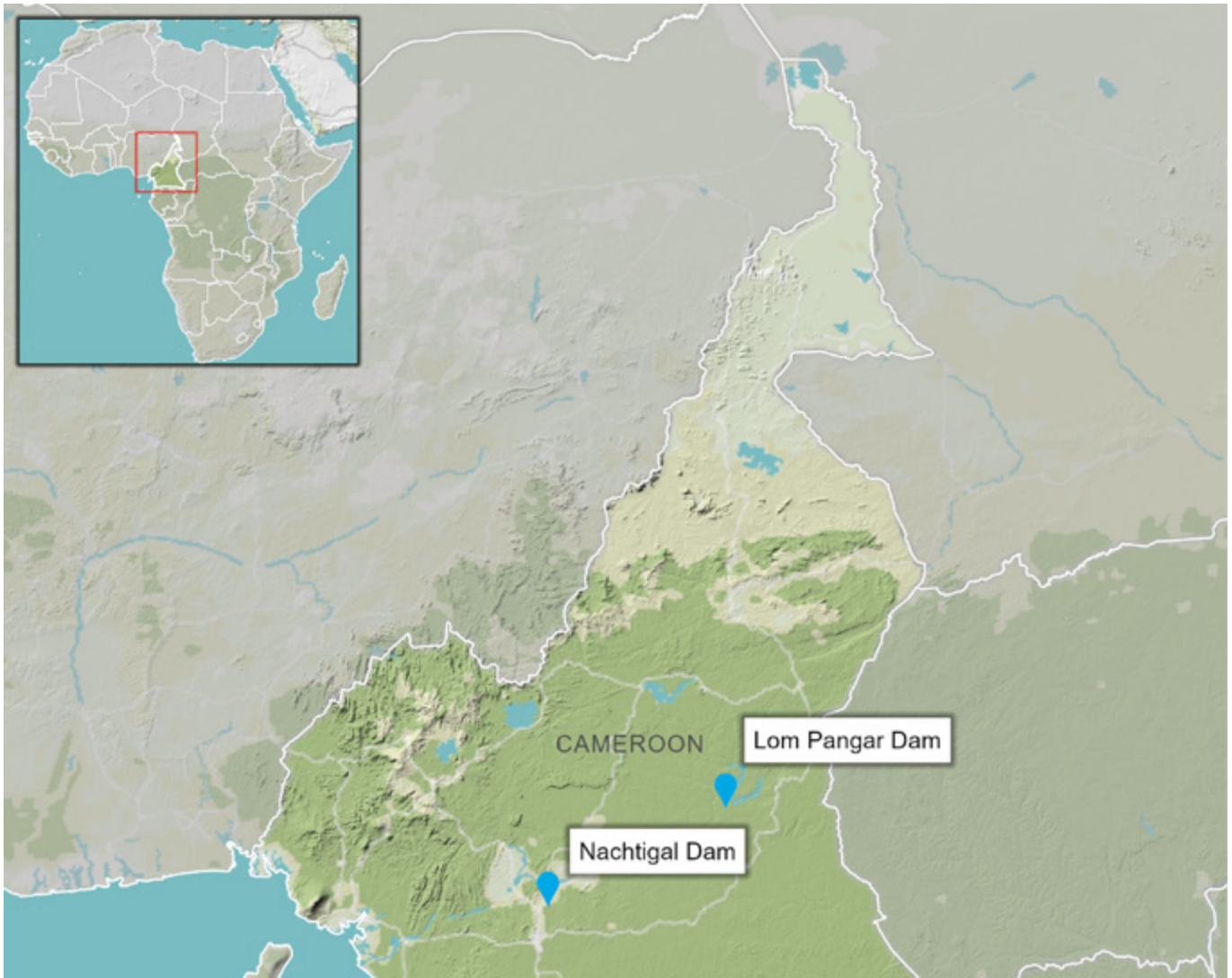
213 UNESCO, 2018

214 UNESCO, 2019

215 UNESCO, 2021

216 UNESCO, 2021

## 4.4 LOM PANGAR AND NACHTIGAL DAMS, CAMEROON



Source: RFUK

### 4.4.1 LOM PANGAR BACKGROUND

These two projects, although separated by several hundred kilometres, are considered here together as they form part of a broader 'master plan' to exploit the Sanaga River for power generation with a cascade of dams.<sup>217</sup> The Lom Pangar Dam is partially complete, whereas downstream the Nachtigal Dam is still in the proposal and 'pre-development' stage. The development of the latter could well be informed by some of the mistakes made, and problems that occurred, in the former – and both through the chronic problems that have occurred with the Mékin Dam.

Lom Pangar is an ongoing \$500 million project on the Lom River in the East Region of Cameroon, intended both to regulate the flow of the Sanaga River (and thus optimise production of the existing Songloulou and Edea power stations downstream), and subsequently to supply hydropower itself. Started in 2012 and partially completed in 2017, it is being developed by the Cameroonian government's Electricity Development Corporation (EDC) and the China International Water & Electricity Corporation (CWE). The funders are the World Bank IDA (initially \$75 million, though eventually \$132 million<sup>218</sup>), the African Development Bank (\$95 million), Agence Francaise de Developpement (AFD, initially, \$80 million), the European Investment Bank (EIB, \$70 million) and the Cameroonian Government.<sup>219</sup>

<sup>217</sup> Wikipedia, undated

<sup>218</sup> World Bank, 2019

<sup>219</sup> World Bank, 2009

Lom Pangar is reported to be Cameroon's largest energy infrastructure project to date – though it is set to be eclipsed by the Nachtigal Dam.<sup>220</sup> The dam contains a reservoir with a capacity of six billion cubic meters of water covering over 600 square kilometres.<sup>221</sup> A 30 MW hydroelectric power plant, to be built by China Camc Engineering,<sup>222</sup> was due to be completed in 2020; and a 105-kilometre transmission line between the power plant and Bertoua, including the electrification of around 150 villages in the East region, is under construction by the French industrial group Cegelec.<sup>223</sup> It also includes an access road between Deng Deng forest and the site of the dam.

The project lies at the heart of Cameroon's Vision 2035, which calls for increased investments in infrastructure and improved productivity for poverty reduction. The Sanaga River provides nearly half of the country's untapped hydropower potential. Described as a 'classic public good' by the World Bank, the project is projected to create nearly 3,500 jobs, improve living conditions across Cameroon's eastern region, and provide better and cheaper power supply for up to five million Cameroonians. The President of Cameroon, Paul Biya, promised in 2009 that it would be operational by 2012.<sup>224</sup> However, embezzlement of funds in the early years of the project was detailed in a report published by the National Anti-Corruption Commission also in 2012.<sup>225</sup> A lengthy delay in the project occurred when the main contractor, CWE, was barred by the Bank after an Integrity Unit investigation found that it had falsified its claims to have had previous relevant experience of such projects.<sup>226</sup> The project was also the subject of a complaint to the World Bank's Inspection Panel over poor working conditions and lack of a grievance mechanism.<sup>227</sup>



*Lom Pangar's construction showed multiple failures in World Bank safeguard policies. Source: World Bank*

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220 Business in Cameroon, 2017b  
221 International Rivers, undated  
222 Business in Cameroon, 2017c  
223 Business in Cameroon, 2017c  
224 Wikileaks, 2009  
225 Reuters, 2017  
226 World Bank, 2015  
227 World Bank, 2017b

### 4.4.2 ENVIRONMENTAL IMPACTS

The project has posed ‘significant and irreversible environmental impacts,’ as well as ‘direct and indirect social impacts in its area of influence and beyond,’ – triggering seven World Bank safeguards, including those around Natural Habitats, Forests, Involuntary Resettlement.<sup>228,229</sup> The Bank identified that ‘The project will have significant impacts on natural habitats, both during construction and operation of the dam.’ As well as the expected direct impacts such as from the alteration to the river course, immigration to the area, and increases in resource exploitation, it stated that ‘the main impact will be the flooding of about 537 km<sup>2</sup>, including approximately 300 km<sup>2</sup> of natural forest.’<sup>230</sup> Although the Bank claimed that ‘none of the flooded terrestrial habitat is critical,’ it also noted that ‘the dam site is located next to portions of the Deng Deng Forest that are critical habitats, particularly because of the presence of a viable population of gorillas, and a significant population of chimpanzees.’<sup>231</sup>

The Deng Deng forest had already been recognised as being of such importance during the construction of the Chad-Cameroon pipeline (see Section 4.5), that the pipeline was ultimately re-routed to reduce damage to it. The Wildlife Conservation Society (WCS) has described the area (together with the nearby Mbam Djerem National Park, adjacent logging concessions, and community forests) as being ‘the largest conservation landscape in Cameroon and one of the most biodiverse.’<sup>232</sup> It is home to the northernmost known population of lowland gorillas, and also harbours ‘other threatened species including chimpanzee, elephant, hippopotamus, giant pangolin, [and] yellow-backed duiker.’<sup>233</sup>

Analysis by RFUK has shown that there was a marked uptick in deforestation coinciding with the completion of the dam. The Hansen tree loss data series were used to assess annual deforestation in the area outlined in red in the image, shown with analysis results, in the figure below.

**Figure 6: Annual tree loss in proximity to Lom Pangar Dam, 2007-2018 (hectares)**



**Area of deforestation analysis**

Source: Hansen/UMD/Google/USGS/NASA and Planet imagery

228 EDC, 2011  
 229 World Bank, 2009  
 230 World Bank, 2009  
 231 World Bank, 2009  
 232 WCS, undated  
 233 WCS, undated

It appears from high-resolution satellite images that most of the forest loss was due to inundation during the reservoir filling – although, importantly, accelerated clearing also occurred around the town of Deng Deng, which is reported to have more than doubled in population between 2013 and 2019 due to immigration to the area.<sup>234</sup> The high loss of tree cover coinciding with the inundation indicates that, contrary to the original project plans and supposed wood-clearance contracts, the reservoir basin was not properly salvage-felled before filling. The serious consequences of this have started to come to light and been reported on recently. A 2020 report puts the total area deforested as a result of Lom Pangar at 36,100 hectares.<sup>235</sup>

As a condition of its financing of the Lom Pangar Dam, the World Bank required that a portion of the forest adjacent to the reservoir not be flooded, and instead designated a national park. Responsibility for this was contracted to WCS, and the 52,347 hectare Deng Deng National Park (DDNP) was formally established in 2010 - requiring further involuntary resettlement as people were forcibly removed from the area.<sup>236</sup> Although the dam resulted in the total destruction by flooding of 300 square kilometres of forest, the World Bank claimed that the 'no project alternative' would be the 'gradual degradation of the Deng Deng forest that could lead to the extinction of its gorilla population.' This implies that the dam was necessary for the National Park to be established and gorillas to be saved - effectively a biodiversity 'offset' in all but name. However, WCS warned in 2011 that, in the absence of appropriate measures, the construction of the Lom Pangar Dam could aggravate environmental degradation in the region, including from fragmentation and destruction of natural habitats, as well as poaching and the illegal bushmeat trade.<sup>237</sup>

#### 4.4.3 SAFEGUARD POLICIES IN PRACTICE – THE REALITY OF VOLUNTARY IMPLEMENTATION

A 2009 memo from the US Embassy in Yaounde (leaked by Wikileaks) explained how, in the early stages of developing the dam, the government of Cameroon remained 'engaged with the World Bank, but is actively soliciting financing and looser conditionalities from other sources, including French development agency AFD.'<sup>238</sup> The document then went on to explain how, according to the World Bank, the project was '12 months away from completing the safeguards process' in January 2006. At that point, the [Government of Cameroon], having decided the World Bank process was too arduous, focused on identifying alternate, less demanding funding sources while continuing to engage only half-heartedly with the World Bank. As a result, according to the World Bank official, there has been no substantive progress toward complying with World Bank standards since January 2006 and the environmental and social impact studies completed since then are not up to international standards. As of June 2009, Cameroon is still about 12 months away from completing the documentation and studies needed to meet international standards for environmental and social safeguards.'<sup>239</sup>

The memo also suggested that unless the French Government funded the project through AFD 'as a political favor to President Biya,' the Cameroonian government would be forced to follow World Bank safeguards. The former, rather than the latter, is precisely what happened and AFD came in with funding eventually amounting to 154 million euros for an eight-year project that was due to conclude in February 2020.<sup>240</sup> In it, the French government specifically mentions the need to increase power generation from the Sanaga Dams in order to satisfy the growing demands of aluminium producer Alucam. The World Bank meanwhile, reportedly bemoaned that 'if we walk away from Lom Pangar, we will be cut out of any future role in Cameroon's power sector'<sup>241</sup> – a problem which seems not to have deterred it from agreeing in 2016 to finance the downstream Nachtigal dam.

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234 SAILD, 2020

235 SAILD, 2020

236 EDC, 2011

237 WCS, 2011

238 WikiLeaks, 2009

239 Wikileaks, 2009

240 AFD, undated

241 Wikileaks, 2009

As it turned out, the US Embassy's 2009 observations on the emerging Lom Pangar shambles proved to be prophetic. The memo noted that 'As we have seen elsewhere, the [Cameroonian government's] inclination to rush project planning and disregard international standards has ended up delaying and further complicating the project. At some point, the [Cameroonian government] will be forced to face the fact that its promise to have Lom Pangar online by 2012 is simply impossible.' Eleven years later, the project is still not complete, and has been plagued with avoidable problems. A December 2019 World Bank project completion report noted that the project end date had to be extended from December 2018 because 'the implementation of...activities aimed to address immediate social and development needs of local communities affected by the project was still under way.'<sup>242</sup>

The World Bank's original objectives for engaging in the project were to improve the availability, reliability and affordability of Cameroon's electricity supply, and to 'address effectively the environmental, social and distributional risks of the project.'<sup>243</sup> According to the Bank's internal project identification document of 2012, one of the three components of the project was 'Environmental and Social Measures,' representing implementation of the Environmental and Social Management, and the Resettlement Action Plans (RAPs).<sup>244</sup> At some point in the following seven years these objectives were evidently dropped, and environmental and social issues barely received a mention in the project completion report (other than to note that they had still not been completed).

### BOX 3: FLOODING ANOTHER WORLD BANK-FUNDED PROJECT

Construction of the dam has left a 12.5 km section of the Chad-Cameroon oil pipeline under water. As described in Section 4.5, this pipeline was in itself a hugely controversial project which caused serious environmental and social impacts. Although it was known at the time of its construction that part of the pipeline's route would be inundated by the Lom Pangar Dam, 'no provisions were made in the specifications of the pipeline - such as enhanced concrete coatings or valve placements - to account for the eventual construction of the reservoir.'<sup>245</sup> Diversion of the pipeline could potentially increase the risk of oil spills, and there was dispute over who would pay for the necessary \$50 million in alterations to the pipeline.<sup>246</sup> The works, completed in 2014, ultimately involved leaving the pipeline in place but strengthening it to withstand the weight of the 20 metre column of water on top of it once the reservoir was flooded<sup>247</sup> - as a spill from the submerged parts of the pipeline could have catastrophic consequences for the reservoir and the downstream Sanaga ecosystems, including all the people dependent on them.

242 World Bank 2019b

243 World Bank, 2009

244 World Bank, 2012

245 World Bank, undated, b.

246 COTCO, 2011

247 Business in Cameroon, 2014b

#### 4.4.4 SOCIAL IMPACTS

The dam was originally expected to physically displace approximately 350 people,<sup>248</sup> though Le Monde reported in 2018 that ‘the construction of the dam required the relocation of 150 families, approximately 1,500 people who lived on the site now flooded.’ According to Le Monde (which is sponsored by AFD) ‘for the 58 families of Lom Pangar, the Electricity Development Corporation has built a village. Their razed mud and thatch houses were rebuilt in bricks 20 km downstream from the Sanaga River. The other families have been relocated to neighbouring villages.’<sup>249</sup> But the relocation involved other and much wider changes that were harder to address.

The Cameroon Network of Human Rights Organisations (Réseau Camerounais des Organisations des Droits de l’Homme, RECODH) conducted an assessment in 2013 of the likely effects of the construction of the dam on 69 villages and up to 20,000 people. It found that the local population was ill-prepared to deal with these effects, not least because of a ‘lack of knowledge of their rights, lack of access to means of communication (radio, TV, internet, etc.), lack of knowledge and use of legal remedies, low levels of education, low level of community involvement in both the consultation phase and the implementation of the project, and corruption of government and company officials.’<sup>250</sup> It noted that, although a complaints mechanism had been set up and over 1000 complaints filed between January and June 2013 ‘most of these complaints were either rejected or the promises for compensation were not kept.’<sup>251</sup> Local people complain that they will ‘continue to lose our forest, our land, and our fishing opportunities. The Lom Pangar Dam has virtually submerged our forest and land for agriculture, pushing us to cultivate far away.’<sup>252</sup>

Additionally, although the dam’s reservoir has enabled fish to proliferate, this has attracted outsiders, putting pressure on local livelihoods. According to a 2016 report, as the reservoir filled it was quickly occupied by around 6,000 fishermen who had mostly migrated from the north of the country.<sup>253</sup> By 2018, the number of incomers had reportedly increased to 8,000.<sup>254</sup> Much of the catch was then exported to other countries, thus reducing local supplies and leading to a doubling of fish prices at the local market. The official responsible for implementing the dam’s Environmental and Social Management Plan stated that ‘people came faster than the studies had expected.’<sup>255</sup> The establishment of the Deng Deng National Park also involved changes to livelihoods. As Le Monde reported, with the prohibition of hunting, the area’s population was obliged to take up fishing, even as they competed with thousands of outsiders doing likewise.

In 2017, it was reported that the government had established a fund of the equivalent of \$420,000 to compensate ‘more than 500 people from 17 villages in this forest region of Cameroon’ whose property will be destroyed by the construction of the high-tension power line from Lom Pangar – amounting to roughly \$800 per person.<sup>256</sup>

The Lom Pangar project has also generated high tensions between workers and the Chinese company undertaking the construction work. Complaints about insufficient remuneration, inadequate working and living conditions, and lack of social protections have already sparked at least two strikes, and workers in the area complain about the company’s failure to comply with national labour laws.<sup>257</sup>

248 International Rivers, 2006

249 Le Monde, 2018

250 Business and Human Rights Resources Centre, undated.

251 Business and Human Rights Resources Centre, undated.

252 Reuters, 2017

253 Investir au Cameroun, 2016

254 Le Monde, 2018

255 Le Monde, 2018

256 Business in Cameroon, 2017c

257 Jeune Afrique, 2015

#### 4.4.5 WIDER IMPACTS

One of the key wider impacts of the dam is on both local weather and wider climate patterns. Originally, an estimated 1.4 million cubic metres of wood was supposed to be removed from the reservoir's catchment, mostly by commercial loggers 'complemented with artisanal logging conducted by representatives from the local populations.'<sup>258</sup> Société Forestière et Industrielle de la Doumé (SFID, a subsidiary of international logging company, Rougier) was reportedly awarded eight permits to log within this area.<sup>259</sup> However, only a very small proportion of the reservoir area appears to have been cleared, and probably then only selectively for commercially valuable timbers, leaving most of the wood behind.

A 2020 report has found that the failure to clear the reservoir before flooding has not only clogged the reservoir with dead and dying trees, creating a hazard to fishermen and people trying to use the lake for transport, but has also caused the release of around seven million tonnes of CO<sub>2</sub> from decaying trees between 2017-2018.<sup>260</sup> The same report found that local weather changes caused by the reservoir, and probably attendant deforestation, had raised ambient temperatures to intolerable levels, as well as increasing populations of insect pests.<sup>261</sup>

Concerns have also been expressed regarding the rationale behind the construction of the dam itself. Cameroon is already more than 50 percent dependent on hydro for its electricity.<sup>262</sup> Reduced power dependability because of drought is already an issue, and could worsen with climate change. One Cameroonian activist, Augustine Njamnshi, described the over-reliance on hydro power (mostly emanating from just one river basin) as 'tantamount to an economic suicide leap.'<sup>263</sup> A World Bank study on the potential climate impacts to Cameroon's hydropower output, found that the Sanaga river system could lose 15 percent of its generating capacity by 2050.<sup>264</sup> Moreover, despite low levels of electricity access for Cameroonian households (around 50% nationally<sup>265</sup>), the project's primary beneficiary will be the Alucam aluminium smelter at Edea.<sup>266, 267</sup> Small business and residential customers are likely to remain at risk of blackouts and power shortages.



*Because of botched site clearance, Lom Pangar's reservoir is clogged with dead and dying trees, which are quickly releasing millions of tons of greenhouse gases. Source: infocongo.org*

258 EDC, 2011  
 259 EDC, 2014  
 260 SAILD, 2020  
 261 SAILD, 2020  
 262 Wikipedia, undated, b.  
 263 Reuters, 2017  
 264 World Bank, 2014  
 265 World Bank, 2018d  
 266 International Rivers, 2005  
 267 WikiLeaks, 2009



#### 4.4.6 NACHTIGAL DAM AND THE NEXT PHASE OF SANAGA HYDROPOWER DEVELOPMENT

According to the World Bank, ‘The 420MW Nachtigal project on the Sanaga is a precursor hydropower project developed under a Public-Private Partnership structure, and is the first hydropower project benefitting from the Lom Pangar Dam.’<sup>268</sup> As with Lom Pangar, the Nachtigal Dam had first been proposed in the early 2000s and will be constructed on the Sanaga River, 65 km from the capital of Yaoundé. It is expected to cost around \$1.1 billion.<sup>269</sup> In 2016, the World Bank’s International Finance Corporation (IFC) pledged nearly \$200 million in investment, plus the arrangement of private financing for a further \$937 million for the project.<sup>270</sup> An additional \$24 million was committed in 2017 by its soft funding arm, the International Development Association (IDA), for technical assistance and government ‘capacity building’ for the project, and a further \$300 million was committed in 2018 by the International Bank for Reconstruction and Development (IBRD), the lending arm of the World Bank Group.<sup>271</sup> An agreement for the IDA funding was signed by the Cameroonian government in 2019.<sup>272</sup> The project was originally expected to begin at the end of 2018 and be operational by 2023.<sup>273</sup>

Through the Nachtigal Hydro Power Company (NHPC), the project will be developed by French energy giant Electricité de France (EDF), which will hold 40 percent of the NHPC shares, with the Cameroonian government and IFC holding 30 percent each.<sup>274</sup> The dam, which will be 1,450 metres long, will be built by Belgian company BESIX, and will produce 420 megawatts of electricity, reportedly enough to satisfy a third of Cameroon’s energy needs.<sup>275</sup> The project will also involve construction of a 50-kilometre power line.<sup>276</sup>

Whilst the World Bank referred, in its 2017 documentation, to how Lom Pangar had increased the attractiveness of the Sanaga River system for private investment in hydro projects, it neglected to mention the consistent failure of the Cameroon government to properly implement environmental and social measures. Nor did it note that during the 12 years of financing Lom Pangar, it had mostly rated the implementation of the project as only ‘moderately satisfactory.’<sup>277</sup> Instead, it referred to Cameroon’s ‘steady and overall positive track record of reform.’<sup>278</sup> In a gushing article in 2018, the Bank heralded Nachtigal as a ‘new chapter in the government’s effort to increase electricity for its citizens,’ saying it came with high hopes for the country’s poor.<sup>279</sup> But in a similar fashion to the trajectory of Lom Pangar, by the end of 2019 a Bank status report deemed progress towards the objectives of the project ‘moderately unsatisfactory’ as well. Progress was evidently so unsatisfactory that the start of IDA disbursements had been postponed from the initially planned beginning of 2018, to the end of 2020.<sup>280</sup> In fact, according to Cameroon’s Minister of Energy and Water Resources, Basile Kouma, the dam’s main objective would not be to provide better public access to electricity, but to raise power supplies to industries and increase aluminium production to 300,000 tonnes per annum. He said that the dam would enable a five-fold increase in Cameroon’s aluminium production, by supplying power to the government-owned Alucam smelting facility at Edea, 200 km south-west of Yaoundé.

268 World Bank, 2017  
 269 World Bank, undated  
 270 Power Technology, undated  
 271 World Bank, undated  
 272 Business in Cameroon, 2019b  
 273 Power Technology, undated  
 274 African Independent, 2016  
 275 African Independent, 2016  
 276 Power Technology, undated  
 277 World Bank, 2019b  
 278 World Bank, 2017  
 279 World Bank, 2018  
 280 World Bank, 2019

As the dam will be a 'run in river' design rather than impoundment, the direct impacts are expected mostly to be limited to the site's immediate surroundings and the river itself. Around 300-500 hectares would be flooded or occupied by the dam and generation plant, and a further 250 hectares will be cleared for the transmission line. Environmental and social impact assessments were conducted in 2006 and again in 2011 – the latter apparently on behalf of Alucam, so closely is the dam linked with its interests.<sup>281</sup> Over the span of the project, the Nachtigal Dam triggered eight World Bank safeguards (including Environmental Assessment, Involuntary Resettlement, Indigenous People, Forest, and Natural Habitats) and was designated Category A – the most sensitive risk category of the World Bank.<sup>282</sup>

The dam site is a transition zone from forest to savannah, characterised by a series of natural waterfalls. According to a later 2017 summary ESIA, the area affected by the dam contains about 34 species of animal, 65 of fish, 122 of birds, and 366 plant species, four of which are categorised as 'critically endangered' or 'endangered' including one species of aquatic grass, *Ledermanniella sanagaensis*, which is found only in the Nachtigal falls.<sup>283</sup> The dam would interrupt fish movements by completely blocking the river, with the entire flow passing through the turbines in dry weather, some downstream channels drying up at least seasonally, and other areas being flooded during rainy seasons. Together, the changes could 'alter species distribution without accurate prediction,' according to the assessment.<sup>284</sup>

The direct social impacts were also projected to be minimal, though around 130 fishermen catching nearly 200 tonnes of fish per year would clearly be impacted, along with some local farmland<sup>285</sup> and, according to one report, some 900 local people for whom a 'support package,' worth around \$164,000, or \$182 per affected person, had been established.<sup>286</sup>

However, as with Lom Pangar and other examples in this report, the likely indirect impacts of the dam have barely been considered. These were simply summarised as that: 'Regional development induced by Nachtigal can accelerate pressure on secondary forest. It is observed that the forest may disappear to give way to agricultural development'; and 'Socio-economic development of nearby agglomerations started during construction could be perpetuated, engendering increased demographic pressure on the biodiversity of the region.'<sup>287</sup>

The wider impacts occurring as result of the Sanaga river developments largely remain to be seen. They are certainly not foreseen in any of the documentation which has evidently been deemed as adequate by the Cameroonian government and the dam's financial backers, despite the persistent warning signs from the earlier Lom Pangar project. Though detailed ESIA's and mitigation measures exist for Nachtigal, they may ultimately prove to be just as avoidable as they were for Lom Pangar.



*Plans for the Nachtigal Dam. Source: cameroon-report.com*

281 Alucam, 2011  
 282 World Bank, 2017  
 283 NHPC, 2017  
 284 NHPC, 2017  
 285 NHPC, 2017  
 286 allAfrica, 2018  
 287 NHPC, 2017

## 4.5 DOBA-KRIBI OIL PIPELINE, CHAD AND CAMEROON



Source: RFUK

### 4.5.1 BACKGROUND

The Chad-Cameroon Petroleum Development and Pipeline transports oil from fields in Doba, Southern Chad and carries it 1,070 kilometres to loading facilities in Kribi, on Cameroon's Gulf of Guinea coast. The highly controversial project was launched on October 18, 2000, and completed in June 2003. Although long-finished, it is included within this report as a warning of how despite promised mitigation measures, repeatedly documented concerns were ignored and damaging impacts arose.

In this project, oil drilling was financed and carried out by a consortium led by Exxon-Mobil. The pipeline itself is owned by two joint venture companies supported by World Bank financing: the Cameroon Oil Transportation Company (COTCO) and the Tchad Oil Transportation Company (TOTCO). The oil consortium jointly holds about 75 percent of the shares of the pipeline companies.

The governments of both countries receive revenues from these holdings and through royalties (to Chad), transit fees (to Cameroon), and taxes (to both governments).



*Chad-Cameroon oil pipeline: gushing revenues, but very little development. Source: businessincameroon.com*

The total cost of the project was estimated at \$4.1 billion, of which private finance amounted to \$3.5 billion. The European Investment Bank financed about 1 percent of the project costs and the International Finance Corporation, the private-sector arm of the World Bank, provided \$100 million of debt-based financing. It constituted one of the most significant infrastructure projects in West Africa and was intended to provide funds for poverty alleviation, through government revenues generated and economic development in both countries. However, misappropriation of funds by the Chadian government and lack of human development impacts – as had been widely foreseen by many of the project critics.<sup>288, 289</sup> Indeed, the World Bank cancelled the oil pipeline agreement with Chad after revenues meant to be spent on schools and hospitals were instead used to consolidate President Idriss Déby's grip on power – such as in 2000, when \$4.5 of a \$25 million oil contract bonus was used to purchase weapons, which the President justified by stating that 'development must be protected.'<sup>290, 291</sup>

The project was created with the intention of promoting the economic growth of Chad and Cameroon, through the private-sector led development of Chad's oil reserves and their export through Cameroon. It followed the idea propelled by the IFC and the World Bank in the late 1990s that large-scale crude oil projects, when designed to ensure transparency and effective environmental and social mitigation, could significantly improve prospects for sustainable long-term development. It aimed to increase public revenues and provide additional resources for alleviating poverty through social sectors and infrastructure in Chad, whilst supporting macroeconomic stability and helping the government comply with financial obligations and expenditures in Cameroon.

As regards local development, the programme yielded some positive results including transit fees, taxes and jobs in Cameroon, and increased spending on social sectors in Chad. However, there were significant issues with the quality of spending, and the impact on poverty was much less than what could have been expected given the rapid increase in oil exports.<sup>292</sup> Since oil began to flow, Chad has earned over \$10 billion – compared to the initial estimation of \$2.5 billion for the 30-year life of the project – yet the national literacy rate is still under 40 percent, the under-five mortality rate remains 16.9 percent, and the country ranks 187th out of 189 in the UN's latest human development index.<sup>293</sup> No plan for revenue management was established a priori for Cameroon since, according to the World Bank, 'the project will only have a marginal impact on its overall revenue position and wealth.'<sup>294</sup>

288 See for example, EDF, 2003

289 Aljazeera, 2006

290 Bannon, I. and Collier, P., 2003

291 Leibold, A. M., 2011

292 World Bank, 2009b.

293 UNDP, 2019

294 Breitkopf, S. 2000.

## 4.5.2 ENVIRONMENTAL IMPACTS

As a World Bank Category A project, a full environmental assessment was carried out, and certain safeguard mitigation measures were adopted. Because the pipeline crossed areas of varying sensitivity and involved some resettlement of people, the governments established (with Bank assistance) an independent panel of environmental and social science experts to support their evaluations of the project's environmental impact and management plans. Public consultations led to changes in the project design; in particular, the pipeline route was modified to avoid crossing the Mbéré Rift Valley and the Deng Deng Forest in Cameroon. Also, the project consortium also agreed to provide funds to help Cameroon create two protected areas, the Campo Ma'an and M'bam Djerem National Parks, to offset any residual biodiversity impacts.<sup>295</sup>

However in both Chad and Cameroon, the destruction of forests, vegetation, farmlands, ancestral lands, and homes along a 30 to 50-meter-wide corridor, occurred between 2000-2003 with the construction of the pipeline. Other environmental impacts included the destruction of coral reefs in the Kribi area, which significantly affected marine life and subsistence fishing.<sup>296</sup> Illegal, cost-saving construction methods also led to the pollution of water sources with calcium hydroxide along the pipeline.<sup>297</sup> Fifteen years after the project was completed, local communities have been left to deal with its negative impacts, whilst few jobs were ever made available to them.

In 2001, a complaint about the project was submitted to the World Bank Inspection Panel by a Chadian Member of Parliament, on behalf of local residents.<sup>298</sup> According to the Panel, 'The Requesters claimed that their rights and interests had been directly harmed as a result of the Bank's actions in the design, appraisal, and supervision of the Pipeline Project.' The complainants alleged that the Bank had failed to comply with ten of its policies and procedures. After a detailed investigation, the Panel found that while the Bank had complied with most of these policies, there had still been multiple failures in relation to the Environmental Assessment (as well as the policies for Economic Evaluation and Poverty Reduction).

There had been an inadequate collection of environmental baseline data, and 'a lack of linkage between baseline data collection, the assessment of project impacts, and the subsequent application of mitigation and management actions.' There had also been inadequate independent expert oversight of the environmental assessment and mitigation plans.<sup>299</sup>

Most seriously though, and reflecting a problem with many of the projects highlighted in this report, it was found that the Bank had failed to consider the wider and indirect impacts, and did not 'complete a cumulative impact assessment and regional environmental assessment to assess the impact of the Project on the region as a whole.'<sup>300</sup> The Panel was 'troubled' by the Bank's 'narrow interpretation of cumulative impacts of the project in that it is restricted to the narrow imprint of the pipeline right-of-way through Cameroon.' They further went on to state, 'it is clear that this project will be a stimulus to the development of additional oil resources in Cameroon and that the development of project infrastructure such as roads and other associated offsite developments will lead to further development within the Pipeline area.'

An independent report in 2007 noted that a plethora of environmental problems caused by the project – many of them foreseen in EIAs or by NGOs, and repeatedly raised by the officially designated External Compliance Monitoring Group and the Independent Advisory Group – remained unaddressed. These included: a much larger 'ecological footprint' than initially planned; non-compliance with the Environmental Management Plan because of problems related to stagnant water – a breeding ground for mosquitoes; unprotected high tension cables; serious erosion in the Mbere Rift Escarpment; commercial logging along access roads in the ecologically sensitive rainforest near Nanga Eboko and Belabo; and poaching and the spread of invasive species along the access roads near gorilla and chimpanzee habitat.<sup>301</sup>

295 Nelson, J. and Tchoumba, B., 2004.

296 Keenan, 2005

297 Keenan, 2005

298 The Inspection Panel, 2003

299 The Inspection Panel, 2003

300 The Inspection Panel, 2003

301 Horta, K., Nguiffo, S. and Djiraiibe, D., 2007

### 4.5.3 SOCIAL IMPACTS

Many impacts on communities have been also observed, including those foreseen by the project's numerous critics. Reports on the allocation of compensation packages for expropriated land show concerns over the unequal treatment of different ethnic groups. The construction of the oil pipeline, and the subsequent deforestation, generated serious social conflicts and deprived local indigenous communities of territorial resources and traditional livelihoods; especially the Bakola 'Pygmy' people of southern Cameroon, who rely on hunting and gathering. Bantu villagers claimed Pygmies' lands as theirs and received the compensations that were due to the Pygmies for their wide-scale displacement.<sup>302</sup>

The investigation conducted by the World Bank Inspection Panel included complaints about the failure of compensation mechanisms, finding that some of them appeared to have been addressed.<sup>303</sup> A 2007 'project non-completion' review carried out by three of the most active critics of the project reported that 'Civil society organizations in Chad and Cameroon have documented several hundred cases of serious compensation problems. A visit to any village in the oil region or along the pipeline route would quickly confirm the lack of adequate compensation for poor rural communities.'<sup>304</sup> The External Compliance Monitoring Group found numerous cases of faulty community compensation, such as 'poor construction of spring catchments, insufficient depth of open hand-dug wells and uncompleted classrooms and other community buildings.'<sup>305</sup>

As noted in Section 4.2, such problems would be repeated as the pipeline's terminal at Kribi served as a catalyst for much wider infrastructure development. NGOs also reported massive migration to the Project area during construction, which increased food insecurity as well as the risk of ethnic conflict, amongst other social pressures. According to the project documentation, it was foreseen that there would be an increase in sexually transmitted diseases (mostly in the zones near project facilities) due to an overall influx of people and a temporary increase in sex workers during construction.<sup>306</sup> In Cameroon, women living along the pipeline routes bore most of the negative impacts of the project because: 'reimbursement mechanisms failed to recognise the agricultural and medicinal contributions of women's crops (e.g. cassava, yams, groundnuts, medicinal plants); destruction of wells and boreholes increased the walking distance for water collection, mostly carried out by women and children; gender-based employment further increased the income inequalities between men and women.'<sup>307</sup>

Contrary to its Indigenous Peoples Policy, the World Bank did not identify a Cameroonian government agency to implement the necessary measures to protect 'Pygmy' peoples along the route. 'Nothing was done with respect to the recognition of legal land rights for the affected Bakola/Bagyeli people in southwestern Cameroon,' and implementation of the Bank's policy 'was largely left to the consortium' responsible for constructing the pipeline.<sup>308</sup> The 2007 report found that the management plan for the Mbam Djerem National Park, (which the Wildlife Conservation Society had been contracted to develop<sup>309</sup>) had 'not yet determined alternative livelihood strategies for area residents who can no longer use the park as they traditionally have.'<sup>310</sup>

302 Nelson, J., 2007

303 The Inspection Panel, 2003

304 Horta, K., Nguiffo, S. and Djiraibe, D., 2007

305 Horta, K., Nguiffo, S. and Djiraibe, D., 2007

306 Utzinger, J. et al, 2005.

307 Murrey, A. 2016

308 Horta, K., Nguiffo, S. and Djiraibe, D., 2007

309 The Inspection Panel, 2003

310 Horta, K., Nguiffo, S. and Djiraibe, D., 2007

## 4.6 POINTE NOIRE-OUÉSSO PIPELINE, REPUBLIC OF CONGO



Source: RFUK

### 4.6.1 BACKGROUND

The Pointe-Noire Ouesso pipeline is a proposed project for a 1,200 km pipeline in the Republic of Congo, from Pointe Noire in the South, via Brazzaville and Oyo, to Ouesso in the North. Despite long having been a substantial oil exporter, Congo's domestic demand for petroleum products is still partly import-dependent, with national consumption having trebled in fifteen years.<sup>311</sup>

The project is still in a state of 'planning.' As with other case studies in this report, there have been various 'false starts' in the efforts to secure investors and technical partners for it, mostly with Russia, France or China. In February 2017, Russia's ambassador to the Congo, Yuri Aleksandrovich Romanov, announced that the project would soon enter its practical phase, given that the feasibility studies had been completed. He also declared that the funding would be completely Russian.<sup>312</sup>

311 RFI, 2017

312 Vox Congo, 2017.

In December 2019, Reuters reported Russian deputy energy minister, Pavel Sorokin, as stating he was hopeful that his country's pipeline manufacturer Trubnaya Metallurgicheskaya (TMK) and the Republic of the Congo's national oil company, SNPC, would 'sign a deal soon' for the project.<sup>313</sup> The estimated cost of the project is around one \$1 billion.<sup>314</sup>

According to a 2017 presentation of the proposed project given by SNPC, the pipeline will pass through the towns of Dolisie, Madingou, Loutété, Mindouli, and then to a terminal at Yié on the Congo river – which will provide outlets to the north as far as Ouessou, as well as to the capital Brazzaville and potentially across the river to Kinshasa.<sup>315</sup> The pipeline will follow either the high-voltage power line or the national road N°1.<sup>316</sup> 1.9 million tonnes per year of gasoline, diesel and air fuel kerosene<sup>317</sup> will be transported inland from the refinery at Pointe Noire,<sup>318</sup> and some 2 million tonnes of fuel will be stored.<sup>319</sup> According to SNPC, the construction of the work will last three years, and will take place in six phases.<sup>320</sup>



Pointe Noire Oil Refinery. Source: [Africanews.com](http://Africanews.com)

#### 4.6.2 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

The project could have significant impacts within the region targeted for the FCPF's major jurisdictional REDD+ programme for Congo,<sup>321</sup> as well as on the country's commitments to protect its Cuvette peatlands – one of the most important carbon sinks on earth.<sup>322</sup> The project is also potentially taking on a new significance, as Congo moves to develop what it claims are significant oil reserves in the north of the country.<sup>323</sup> It is this development that might have spurred a renewed interest in the pipeline from overseas investors, as any oil found in the north would presumably have to be exported through a pipeline flowing south. Four oil exploration blocks covering much of the far northeast of the country were already allocated by 2018, including one concession to French Oil Major Total (some versions of the allocations map showed a second),<sup>324</sup> which says it wants to continue exploring for oil in the Congo.<sup>325</sup> A second round of allocations for five more blocks, covering around half of the central Cuvette region south of Brazzaville, was started in 2016<sup>326</sup> and repeated again in 2018 and 2019. However, these appear not to have attracted any bidders, at least until July 2019.

The pipeline would cross four of these blocks – much of the forested lands of which are inhabited and used by Indigenous Peoples and other local communities.<sup>327</sup> As yet, however, there appear to have been no studies conducted on the potential environmental and social impacts of the proposed project – which could be enormous if it were to facilitate the exploitation of any reserves found in either the north or central Cuvette peatlands.

The pipeline does not feature in the \$65 million Letter of Intent signed between the Central African Forest Initiative (CAFI) and Congo on behalf of the Norwegian and French governments – nor the country's National REDD+ Investment Strategy on which the funding agreement is based.<sup>328-329</sup> This is despite the fact that the pipeline, long been known to be a government ambition, has moved closer to reality and will potentially have significant negative impacts on the peatlands which the CAFI agreement aims to protect.

313 Reuters, 2019  
 314 Ossebi, R., 2016  
 315 Vox Congo, 2017  
 316 Vox Congo, 2017  
 317 Republic of Congo, 2019  
 318 Mapanga, G., 2017  
 319 Vox Congo, 2017.  
 320 Ibid.  
 321 FCPF, 2021  
 322 UNEP, 2018  
 323 RFI, 2019  
 324 Energy-pedia, 2018  
 325 ADIAC, 2019  
 326 The Energy Year, 2017  
 327 Les Echos du Congo Brazzaville, 2019  
 328 CAFI, 2018  
 329 CAFI, 2019



## 4.7 CHOLLET DAM, REPUBLIC OF CONGO AND CAMEROON



Source: RFUK

### 4.7.1 BACKGROUND

Chollet is an intended 600MW hydropower development on the Dja/Ngoko river in the northwest of Congo, on the border with Cameroon. Located in a highly environmentally and socially sensitive area, the development of the dam could unlock several other major regional extractive and infrastructure projects, including those described in this report, causing enormous indirect impacts. Financing agreements for this project were originally awarded in 2006 (to Old Mutual Properties, South African financiers), along with those for the larger Sounda Dam in the south of the country, as part of a plan to install 2,000MW of generation capacity.<sup>330</sup> A memorandum to proceed with the project was signed by the Congolese and

Cameroonian heads of state in 2010,<sup>331</sup> and the two countries agreed to set up a joint project development team in 2017.<sup>332</sup> The 100 m-high dam is currently expected to cost around \$2.5 billion. It would be accompanied by a 1,500-kilometre high voltage power line to Brazzaville in the south of Congo, and a 700-kilometre line in Cameroon. The dam is included as one of the projects in the African Development Bank's 2019-2025 Regional Integration Strategy Paper,<sup>333</sup> and there are expectations that the AfDB would contribute to its financing.<sup>334</sup> The Bank is funding a study of the Chollet Dam, which is expected to be completed in 2021.<sup>335</sup>

330 HydroReview, 2006

331 ADIAC, 2019b

332 ADIAC, 2017

333 AfDB, 2019

334 Financial Afrik, 2019

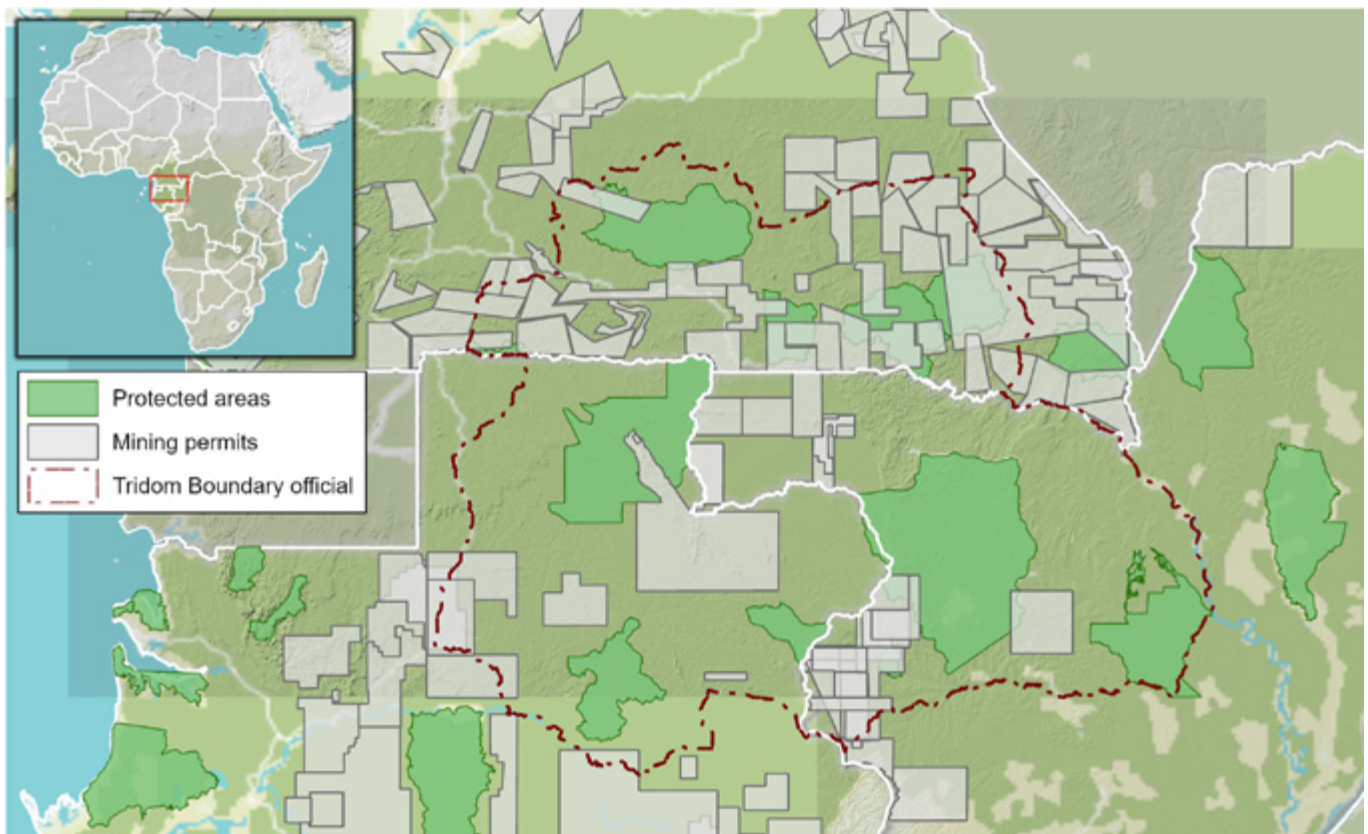
335 AfDB, 2019

Originally to be constructed by Sinohydro, the Chinese company reportedly pulled out in 2019.<sup>336</sup> A new call for expressions was then launched in August of that year,<sup>337</sup> resulting in the ‘prequalification of four companies, three of which are Chinese and one under Norwegian law’ according to the project’s director, Richard Balla.<sup>338</sup> In December 2019, a call for tenders from the pre-selected bidders was issued, with the deadline for submissions set for March 2nd, 2020.<sup>339</sup> The project is intended to be run as a build-operate-transfer deal. In May 2021, it was announced that the China Gezhouba Group Company (CGGC) had been selected to carry out the project, starting with ‘studies concerning the dam, a power plant, substations, and associated lines as well as access routes to the site by the two countries and environmental and social impact.’<sup>340</sup> The project is reportedly due for completion by 2025.<sup>341</sup>

#### 4.7.2 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

The Chollet Dam could stimulate development of the known enormous mineral reserves in the northwest of Congo and southeast of Cameroon, as well as associated infrastructure, including that linked to the Mbalam project (see Section 4.1). As a 2018 study noted, while the Mbalam mining company is planning to use heavy fuel oil generators for power self-supply purposes ‘it would welcome the possibility of tapping the potential Chollet Dam hydropower project in the Republic of Congo, which would only be viable if several mining projects in the region were to move ahead.’<sup>342</sup> The area also contains many mineral concessions (see Figure 7 below), including those described in the Mbalam case study above, most of which remain untapped. By providing power to these operations, Chollet could thus trigger enormous indirect impacts, in addition to whatever local and direct impacts it has.

**Figure 7: Mining Permits in the TRIDOM landscape**



*RFUK, Global Observation and Biodiversity Information Portal, WDPA, UNEP, IUCN, Ministry of Industry, Mines and Technological Development via the Forest Atlas of Cameroon, and Ministry of Mines and Geology via the Forest Atlas of Republic of Congo*

336 Africa Intelligence, 2019  
 337 AllAfrica, 2019  
 338 ADIAC, 2019b  
 339 ADIAC, 2019b  
 340 Construction Review Online, 2021  
 341 Construct Africa, 2021  
 342 Lodhia, S. 2018

The dam would be located in the heart of the Tri-National Dja-Odzala-Minkebe (TRIDOM) landscape, termed as such by conservationists in reference to the three protected areas it spans: southeastern Cameroon, northeastern Gabon and northwest Congo. As WWF describes it, 97 percent of TRIDOM is forested and the area 'covers 178,000 km<sup>2</sup>, or 10% of the whole Congo Basin rainforest. The area is a haven for large mammals: it shelters up to 25,000 elephants and 40,000 gorillas and chimpanzees, as well as a host of other species, including buffaloes, giant forest hogs, sitatunga, pythons, and monkeys.'<sup>343</sup> WWF says that the Chollet Dam would be 'in a pristine site on the Dja River, which has a high elephant and ape density and contains many baïs rich in mineral soil.'<sup>344</sup>

The exact location of the dam appears not to have been officially and publicly stated but it seems highly likely that it would be on or near the Chollet Falls, some 70 kilometres west of the Cameroonian town of Mouloundou.<sup>345</sup> This would mean that part of Cameroon's Nki National Park, which borders the Dja River along the entire length of the Chollet Falls on the northern side, would be inundated. WWF, which long campaigned for the establishment of the Nki park (which occurred in 2005, as the initial plans to develop Chollet were already being drawn up), describes it 'as one of the last true wildernesses on Earth.'<sup>346</sup>

The area is also known to be critical for fish life, as 'A stretch of approximately 40 km on the Dja River includes both the Nki Falls and the rapids of Chollet and separates coastal fish faunas from Congo fish faunas.'<sup>347</sup> Two species of fish are believed to be endemic to the Nki and Chollet falls area.<sup>348</sup>

TRIDOM is also home to a large number of indigenous 'Pygmy' hunter-gatherer peoples, as well as forest-dependent Bantu farmers. It is clear from what is stated by WWF (the key conservation organisation active in the TRIDOM landscape) that its priority is 'offsetting' the impacts of these developments in the highly sensitive area, including by driving 'the creation of 6,000 km<sup>2</sup> of new Protected Areas.'<sup>349</sup> One of the new protected areas proposed by WWF is the Messok Dja reserve, which has been the cause of major controversy. As with numerous already-established protected areas, there have been serious complaints of failure to obtain the consent of indigenous peoples in this region, as well as the physical abuse of them by 'eco-guards.'<sup>350</sup> In a filing to the EU, WWF claimed that indigenous people were "favorable" to the new national park, but an internal report revealed that villagers were afraid of "repression from eco-guards," and ongoing BuzzFeed News investigations have found that WWF-funded rangers have raped, tortured, and killed locals living near nature reserves across Asia and Africa<sup>351</sup>.



*Eco-guards on patrol near Messok Dja. Source: BuzzFeed News*

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343 WWF, 2019  
344 WWF, 2019b  
345 GetaMap.net, undated  
346 WWF, 2017  
347 Thieme et al, 2005  
348 Thieme et al, 2005  
349 WWF, 2019  
350 Survival International, 2019  
351 BuzzFeed News, 2019

## 4.8 PRO-ROUTES PROJECT, DRC



Source: RFUK and Open Street Map

### 4.8.1 BACKGROUND

The High-Priority Roads Reopening and Maintenance Project (usually known as 'Pro-Routes') is a long-term ongoing project of renovation, reconstruction, enlargement, and reopening of roads in the Democratic Republic of Congo. Launched in 2008, it was intended to be completed by 2013.<sup>352</sup> However, following two extensions with additional financing, the project completion date was moved to June 2020, although it remains ongoing.<sup>353</sup>

It originally aimed to re-establish road access between provincial capitals, districts and territories in what were at the time the four Provinces of Orientale, Katanga, South Kivu, and Equateur, though has also included the new provinces of Sud Ubangi, Mongala, Tshuapa, Tshopo, Ituri, North Kivu, Tanganyika and Haut Katanga.

352 World Bank, 2011c

353 World Bank, 2020

The re-opening of roads in DRC is said to be a key step in the country's development and essential to enable economic growth, as DRC has one of the lowest densities of paved roads anywhere in the world.<sup>354</sup> Consultations have shown that most people consider it a priority, as it is expected to improve access to health infrastructure and wider services, end the economic isolation of many communities, and provide greater transportation opportunities for children to attend school.<sup>355</sup> The economic impact of the rehabilitated sections was expected to be significant, with a rate of return on investment of between 12 and 20 percent per year. The development of the roads targeted by the programme was expected to have significant local development impacts, reducing transportation costs by as much as 80 percent in some cases and cutting travel time by more than half. Insecurity was also expected to decrease in areas where roads have been rehabilitated.<sup>356</sup>

The project has been carried out by the DRC Ministry of Public Works and Infrastructure and their delegated implementing body, the Cellule Infrastructures (CI), and government road agency Office des Routes. The first phase was budgeted at \$110 million, of which the UK Department for International Development (now the FCDO) provided \$60 million and the World Bank \$50 million. The project was originally intended to improve the roads between Gemena and Kisangani (Routes National 6 and 4) in the north, Uvira and Kasomeno (RN5) in the east, and parts of the RN1 connecting Kinshasa with Mukamba in the south.<sup>357</sup> Initial World Bank financing was targeted towards specific parts of this, including all of the eastern route.<sup>358</sup> An additional \$125 million was then added in 2011, of which DFID contributed \$46 million and the World Bank \$63.3 million, whilst the government of DRC reportedly contributed \$15.9 million through its new road maintenance fund FONER (Fond National d'Entretien Routier, which is financed through fuel tax and road tolls).<sup>359</sup> The 2011 'additional financing' aimed to incorporate additional sections of road including the RN6 from Akula through Gemena, as well as the RN23 to the CAR border, and the RN4 running east from Kisangani to Beni in North Kivu.<sup>360</sup>

A second additional financing package of \$125 million (which is still operational) was then added by the World Bank in 2016 to complete some of the still unfinished routes, maintain those that had been completed but were already badly deteriorating, and crucially, add some new routes which would link Beni and Komanda in Ituri province with the Ugandan road network, and Bukavu with Walikali and Kisangani.<sup>361</sup> However, as described below, in November 2017 the World Bank itself suspended disbursements for all civil works under this again-extended first phase, because of serious social impacts from the project. The Bank reported that by the end of February 2020 it had disbursed over \$220 million in total for the project since 2008<sup>362</sup> which, with the earlier contributions from DFID, brings the total disbursed to around \$339m.<sup>363</sup>

As the various phases of the project proceeded, the Bank's 'Results Framework,' which set out what was expected to be achieved, was repeatedly changed or downgraded as the results failed to materialise (see Section 4.8.3). In 2014, DFID exited the programme early 'with £17.5m of its planned £76m contribution undisbursed' because of 'continued under-performance.'<sup>364</sup> In 2011, of the 1,800 km to be rehabilitated under the Bank's programme, only 110 km had been reopened.<sup>365</sup> The first phase of the overall project was meant to have resulted in 2,176 km of the high priority road network being reopened, but by the time of DFID's withdrawal in 2014 – and despite the more than doubling of funds provided – the actual length of road completed was barely half of that.<sup>366</sup> One specific reason mentioned by DFID was that 'The works entrusted to contractors...were constrained due to the need to cancel and re-award a major contract in Equateur Province, as the original contractor was found to be on the World Bank blacklist.'<sup>367</sup> According to the Bank, by the end of February 2020 some 2,672 kilometres of road had been rehabilitated.<sup>368</sup> Despite the slow and troubled progress, the achievement of the project has still consistently been rated by the Bank with its euphemistic term 'moderately satisfactory' throughout the life of the project (only receiving an occasional 'moderately unsatisfactory').<sup>369</sup>

354 World Bank, 2013

355 DFID, 2009

356 World Bank, 2013

357 RDC-MITP, 2007

358 World Bank, 2008c

359 RDC-MITP, 2016

360 World Bank, 2011e

361 World Bank, 2017e

362 World Bank, undated, c.

363 DFID's contributions through a Trust Fund being \$119m, see World Bank 2019c

364 DFID, 2014

365 World Bank, 2011c

366 DFID, 2014

367 DFID, 2014

368 World Bank, undated, c.

369 World Bank, undated c

A new second phase of the project, costed at \$457 million, of which \$300 million was to be provided by the World Bank, was proposed in 2017.<sup>370</sup> This apparently stalled as the last years of the much-extended original project descended into chaos (and were further extended to 2020) whilst the new project was being developed. However, the project has stayed in the Bank's 'lending pipeline' and, after various name changes, now appears as the DRC 'Transport and Connectivity Support Project' – the overall objectives of which are the same as those of Pro-Routes post-2008.<sup>371</sup> If it goes ahead, this project would potentially include paving the Kisangani-Goli road, which passes through the Okapi Wildlife Reserve and is a major route of timber export to Uganda,<sup>372</sup> as well as the rehabilitation of the Bukavu-Walikali road which crosses the Kahuzi-Biega National Park.<sup>373</sup> As of 2020, the expected Bank contribution to this proposed project has doubled to \$600 million.<sup>374</sup>

Alarming, as the Bank prepares this new Transport and Connectivity Support Project in DRC, there is no evidence that it has learned any lessons from the 12 years of continuously troubled and damaging implementation of the Pro-Routes project. Whilst the project has not yet been formally approved by the Bank's Board,<sup>375</sup> documents show an advance payment of \$5.5m for preparation of the project was made to the DRC government in December 2019,<sup>376</sup> and it remains on the Bank's official list of pipeline projects,<sup>377</sup> with detailed procurement plans having been drawn up as recently as June 2021. The document outlining which environmental and social safeguards should apply is the same as was developed in 2017.<sup>378</sup>

## 4.8.2 ENVIRONMENTAL IMPACTS

### Phase 1: a gap between mitigation planning and frameworks for implementation

From the outset, the funders were aware of the enormous challenge involved in mitigating the many environmental and social risks posed by the project. All three parts of the project were judged as a Category A risk and triggered multiple World Bank social and environmental safeguards, including those concerning Environmental Assessment, Natural Habitats, Forests, Indigenous Peoples and Involuntary Resettlement.<sup>379</sup> An ESIA team was appointed, led by the consultancies AGRECO from Belgium and EDG from the UK, as well as other individuals such as the well-known conservationist Dr Therese Hart.<sup>380</sup> Environmental and social management of the project formed the third of its four overall components (the others being road rehabilitation and maintenance, institutional strengthening and road sector coordination and harmonisation), and was budgeted at \$44.8 million, or around 13.5 percent of the total funding.<sup>381</sup>

Detailed environmental and social impact assessments for each known road section were prepared in 2007 along with a framework assessment, thematic studies, resettlement plans and an indigenous peoples plan.<sup>382</sup> According to the framework ESIA, public consultations 'about these roads and their environment'<sup>383</sup> were held in each of the administrative centres joined by these roads. As the project progressed, specific and more detailed ESIA's were conducted for the specific road sections, and the overall environment and social management framework was updated through additional studies.

370 World Bank, 2017d  
 371 World Bank, undated e  
 372 World Bank, 2017d  
 373 World Bank, 2017f  
 374 World Bank, undated e  
 375 World Bank, undated, h  
 376 World Bank 2019e  
 377 World Bank 2021  
 378 World Bank undated d.  
 379 World Bank, 2008; World Bank, 2017d  
 380 RDC-MITP, 2007  
 381 World Bank, 2016c  
 382 World Bank, undated d.  
 383 RDC-MITP, 2007

In terms of impacts on forests and wildlife, some were foreseen from the outset and while well-meaning, the proposed mitigation measures were inadequate in their understanding of the challenges in addressing potential impacts over such large areas. For example, the 2007 ESIA noted that ‘the [government of DRC] environmental service is without field representation, and the regulations and laws applying to natural resource management in DRC...are widely ignored. Commercial forestry as practised along the road, particularly in Lisala and Bumba Districts, destroys protected species with impunity and gives little or nothing in return to local communities or local authorities, in terms of equipment, jobs or tax revenues.’<sup>384</sup> However, the key recommendation made to address this was that there should be ‘participatory community management of natural resources: being the only way or arriving at sustainable results in the domain of biodiversity conservation and the renewal of resources essential to the well-being of local populations.’<sup>385</sup> It went on to advocate the need to ‘renovate or revitalize grassroots organizations, in a spirit of community participatory management of natural resources...In defense of environmental rules, we do not see how measures to police could replace real social control at the base, especially over such distances.’ However, this recommendation ignored the fact that at the time, there was no legal basis or experience of such a community-managed approach in DRC, nor any organisations positioned to build it. Indeed, the full legal framework for one of the most critical ‘solutions’ – the designation of community forests – was not formally adopted by the government until nine years later, in 2016.

Other ESIA recommendations were similarly fanciful. In the same study, it was calculated that around 300 hectares of forest would have to be cleared for every 100 kilometres of road (allowing for a 30m-wide cleared corridor) – more if the roads had to be re-routed. The proposed mitigation for this was broadly ‘reforestation...the development of agro-forestry... capacity building in area surveillance, control of logging activities.’<sup>386</sup> Again, neither afforestation nor agroforestry has any real history in DRC, and the Bank was also aware that the development of regulatory capacity in the forest and environment sector was probably at least a decade-long prospect.<sup>387</sup>

Concerning indirect impacts, the study noted that improving road access to centres of population would cause an expansion of the areas being exploited by both charcoal producers and artisanal loggers.<sup>388</sup> The proposed solution to both of these problems was again reforestation and wood plantations, and potentially by improving charcoal production techniques and reducing consumption of charcoal through the use of improved wood-stoves, though the report noted that ‘the difficulty of adopting these techniques in the Congo should not be underestimated.’<sup>389</sup>

The ESIA also noted the potential for an increase in the number of logging concessions as a result of the project. Some of the roads being upgraded were known to be important channels for exporting timber from DRC’s forests, whilst also cutting through land occupied and relied on by indigenous peoples. Of the northern route, the Bank noted that the 376-kilometre section in Equateur province from Akula to Zongo (on the CAR border) ‘serves as a route for the export of timber through CAR to Cameroon.’<sup>390</sup> At the time, the timber industry was also under review through a separate World Bank forest sector project, which expected many illegal logging titles to eventually be cancelled or converted to new-style concessions.<sup>391</sup>

However, the document did not put forward any proposals to ameliorate the specific risks related to increased logging, instead suggesting that partnerships between loggers and NGOs could help improve monitoring.<sup>392</sup> It noted that ‘We have to hope that in the five-year duration of the project the [logging title] conversion process will succeed at its end, and that the provisions of the Forest Code are applied, making logging less predatory for the environment,’ and called for the ‘strengthening of services responsible for controlling logging.’<sup>393</sup>

384 RDC-MITP, 2007  
 385 RDC-MITP, 2007  
 386 RDC-MITP, 2007  
 387 Counsell, S., 2006  
 388 RDC-MITP, 2007  
 389 RDC-MITP, 2007  
 390 World Bank, 2011b  
 391 World Bank, 2013  
 392 RDC-MITP, 2007  
 393 RDC-MITP, 2007

The study also acknowledged, if to a limited degree, the increased potential for hunting and the bushmeat trade. It noted that the relevant roads passed through or close to numerous protected areas, but somewhat dismissed the impacts of this, considering them as badly protected anyways.<sup>394</sup> With a clear colonialist sentiment, it declared generally that, in the areas traversed by the roads, ‘hunting for bushmeat is intense. Hunting and fishing are practised everywhere without rules, without mercy and without a thought to the species’ reproductive capacity.’ It further noted: ‘The improved access offered by the opening of the roads will make the production of bushmeat (hunting) more profitable and potentially more important. How to limit this? By strengthening the capacities of control services, personnel and services of protected areas, the application of regulations in force, informing elected and administrative officials, consumers and professionals, by information on the health risks involved.’<sup>395</sup> The study advocated wide measures of information-sharing and negotiation with officials, hunters and farmers to reduce hunting pressures, as well as the strengthening of l’Institut Congolais pour la Conservation de la Nature (ICCN), the national protected areas’ agency.

### Unimplemented safeguard measures

The overall management of the environmental and social component was troubled from the beginning, and stayed that way throughout. According to the World Bank, ‘The Project design took into account that there is very weak in-country capacity for safeguards.’<sup>396</sup> To mitigate this, ‘a range of measures were put in place at the outset to manage safeguard issues,’ including the recruitment of a safeguard specialist, appointment of a ‘Bureau d’Études pour la Gestion Environnementale et Sociale’ (BEGES) as safeguards supervisor, mobilisation of staff from the Ministry of Environment, and the creation of an Environmental and Social Advisory Panel (ESAP) for independent oversight of the implementation of environmental and social activities. Quarterly progress reports on environmental and social safeguard management were also to be prepared by the BEGES.<sup>397</sup>

However, things very quickly went wrong. According to the Bank’s 2008 financing contract for the project, the oversight and coordination for implementation of all the environmental and social mitigation measures was to be contracted to a ‘non-governmental organization with international standing and with qualifications and experience,’<sup>398</sup> which would ‘improve interactions with local communities and civil society in the Project area.’<sup>399</sup> \$3.9 million was set aside for this work, but the organisation responsible for implementing it was not named in the contract, and had clearly not been identified.<sup>400</sup> The Bank later reported that ‘no international NGOs expressed interest’ in the role, and eventually ‘a consulting firm was hired.’<sup>401</sup> The firm appointed to act as the BEGES for 2010-2013 was French consulting company SOFRECO<sup>402</sup> – though curiously none of the very extensive documentation for the project names SOFRECO or any other company as fulfilling the role of the BEGES. In 2014 (and until 2018), the Canadian consultancy CRC-Sogema replaced SOFRECO to execute the role of the BEGES.<sup>403, 404</sup>

It is not known which company or organisation, if any, became responsible for the ESMP implementation after 2018 – but this meant that, from the outset, the hoped-for outreach to local communities and civil society failed to happen. As it turned out, none of the reports of the BEGES were even made publicly available, and the unit had no website or public outreach. An independent study conducted by the Arcus Foundation in 2018 found a ‘project-wide lack of transparency... partially attributable to the insular nature of the organizations in charge of overseeing the mitigation strategies.’<sup>405</sup>

The Arcus study also noted that ‘A major weakness in the execution of this project... concerns the inertia exhibited by BEGES. The unit was charged with the implementation of the full array of policies and recommendations, both environmental and social. The wide diversity of expertise required to carry out this work would be difficult to gather in any single organization.’<sup>406</sup> The unit failed to recruit the necessary specialist organisations and resource persons, which in other words, meant the Bank had appointed a consultancy to lead and implement the critical environmental component of the project that it was ill-equipped to do.

394 RDC-MITP, 2007

395 RDC-MITP, 2007

396 World Bank, 2018b

397 World Bank, 2018b

398 World Bank, 2008

399 World Bank, 2018b

400 World Bank, 2008c

401 World Bank, 2018b

402 SOFRECO, undated

403 Cowater International, undated

404 The company merged with the Cowater International consultancy to become Cowater Sogema International, and then simply Cowater International – see CCA, 2017

405 Rainer et al, 2018

406 Rainer et al, 2018



In October 2012, more than four years after the project had started, the independent Environmental and Social Advisory Panel (ESAP) produced its first report on the implementation of the safeguard measures, based on findings from a June 2012 mission. Whilst the Panel found that the main achievements had been the existence of environmental and social management structures, it also found (translated below from the original document in French):

- 'A poorly designed and ineffective organisational structure leading to multi-level accountability;
- The non-involvement of the Interministerial Monitoring Committee;
- Weak involvement of World Bank safeguard policy experts in the supervision process;
- Late establishment of a process to ensure the sustainability of control posts on the roads;
- A low disbursement rate for all of the social and environmental component;
- A significant delay in the implementation of several mitigatory actions, in particular participatory management of protected areas, identification of new protected areas, and community natural resource management;
- Insufficient project monitoring and evaluation systems including an insufficient, self-controlled, poorly monitored ESMP monitoring system for construction sites, with no real follow-up or feedback process;
- Lack of an environmental and social monitoring and evaluation system such as defined in the BEGESToRs;
- Lack of a guide to procedures for environmental and social management, or for carrying out the main components;
- Almost non-existent technical quality control of BEGES's work.<sup>407</sup>

Several of these issues were repeated the following year (2013) after a second mission, in addition to which the ESAP also noted there was 'no logical framework for component 3 establishing a causal link between activities, indicators and results; and no database to be used to store and process the data collected at the level of checkpoints.'<sup>408</sup> According to the World Bank, the Environmental and Social Advisory Panel made eight field visits between 2008 and 2018,<sup>409</sup> even though it was supposed to make a mandatory two per year.<sup>410</sup> The existence of such a Panel is a requirement for compliance with the Bank's environmental assessment safeguard (4.01),<sup>411</sup> but no more reports from the Panel were published after 2013, and the leader of the Panel quit in 2016,<sup>412</sup> so it is not clear whether it continued functioning, or if so in what capacity. According to the Bank, the 'limited frequency of these visits and the difficulty in mobilizing experts have hampered the ability of this instrument to contribute to supervision and help detect serious issues.'<sup>413</sup>

#### Limited performance indicators

Given the already shaky start in terms of mitigating impacts, the first project reports unsurprisingly already started indicating that the necessary measures were not happening. For reasons that are not clear, the Bank selected as its only three indicators for performance of the environmental and social component:

- 1 How many of the planned ten local environmental plans had been developed;
- 2 The amount of illegal timber from commercial logging operations found at selected checkpoints on the northern route, and;
- 3 The amount of protected species' bushmeat found at checkpoints on both the northern and eastern routes.

These indicators remained in place from 2008 until 2016.

407 RDC, 2012

408 RDC, 2013

409 World Bank, 2018b

410 World Bank, 2016b

411 World Bank, 2008d

412 World Bank 2016b

413 World Bank, 2018b

The first World Bank progress report publicly available (three years after the project had started) recorded that by 2011 none of the expected local environmental management plans had been completed, though ‘the firm in charge (BEGES)...has begun working on it.’<sup>414</sup> For the other two environmental indicators, not even the baseline figures had been established, and checks had not even started.<sup>415</sup> Over a year later, still none of the local environmental plans had been completed, with the Bank reporting instead that ‘transitory activities are developed with local communities.’<sup>416</sup> Monitoring of illegal timber and bushmeat trafficking at checkpoints had supposedly begun, with 90 percent of the total on the northern route, and 67 percent on the eastern route found to be illegal<sup>417</sup>

In later Bank progress reports, it was found that, from a revised 2010 baseline of 20-30 percent on the various roads, the percentage of protected species found in bushmeat at checkpoints had actually increased to 70-90 percent.<sup>418</sup>

### Additional Funding - Round 1

By the time the ESAP had drawn its damning conclusions in 2012, the Bank had already prepared the first additional financing programme of a further \$120 million. According to the 2011 Bank documentation for this additional financing, which would support road rehabilitation in even more sensitive areas, the serious potential impacts were again recognised. The Bank noted that ‘The reopening of the roads will likely open greater economic opportunities and attract a variety of interests looking for short-term profits, as well as, economically disadvantaged people looking for ways to sustain a living. Logging, charcoal production, and commercial poaching are likely to increase, as well as, encroachment on newly opened up forested areas by agriculturalists, artisanal miners, and others. This will put in danger some forest ecosystems and species, as well as, the traditional territories of indigenous pygmy groups, and potentially will cause conflict with resident populations.’<sup>419</sup>

In justifying additional funding, which would run from 2012-16, Bank staff asserted that: ‘Safeguards documents have been prepared for all three [roads] and address the environmental and social impacts of the road and bridge rehabilitation, repairs, and maintenance. These documents remain valid for the implementation of activities under the Additional Financing.’<sup>420</sup>

However, they failed to mention that many of the key mitigation measures set out in the original 2007 ESIA had never actually been implemented. The Bank again claimed that, ‘To address the risks to forests, biodiversity and indigenous pygmy groups in a proactive manner, the participatory natural resources management subcomponent will promote participatory land use planning and sustainable livelihood opportunities, thus minimizing spontaneous colonization of newly accessible areas. This will involve local consultations and participatory mapping of existing uses. It will aim at securing local communities’ rights of use and access to land and forests, including those of indigenous pygmy groups. Building on this participatory process, the project will support and help pilot local initiatives for community forests, income-generating activities, and agricultural intensification.’<sup>421</sup>

Concerning the Kisangani to Beni section, which had not been included in the original project plans nor the ESIA for it, the Bank noted that this road ‘passes through rainforest, including the Okapi Wildlife Reserve (a World Heritage Site), as well as, areas inhabited by indigenous Batwa and Mbuti pygmy groups. This section is particularly sensitive, as it is the principal transport route for the export of timber extracted under poorly controlled artisanal cutting permits to Uganda and Kenya.’<sup>422</sup> Despite the addition of this important road through highly sensitive areas, Bank staff asserted to the Board that the original 2007 environmental and social framework documents ‘remain valid for the implementation of activities under the additional financing.’<sup>423</sup>

414 World Bank, 2011c

415 World Bank, 2011c

416 World Bank, 2012b

417 World Bank, 2012b

418 World Bank, 2018c

419 World Bank, 2011e

420 World Bank, 2011e

421 World Bank, 2011e

422 World Bank, 2011b

423 World Bank, 2011b

Some three years' worth of project progress reports (between 2012 and 2014) are unavailable on the World Bank's website, but the situation in 2015 in relation to the environmental and social measures under the additional financing, was still clearly unsatisfactory. Eight years after the project had started, still none of the local environmental management plans had been completed.<sup>424</sup> Remarkably, however, the reports claimed that the amount of illegal timber found at checkpoints on two of the roads where industrial logging was happening, had declined from 100 percent the previous year, to zero.<sup>425</sup>

It was during this first additional financing period, in 2014, that DFID exited the project. In its final report on participation in the project, it noted: 'This project includes ambitious measures to mitigate the indirect and longer term impacts of road construction, in addition to the immediate impacts of the construction phase. However, these measures have not been as effective as planned.' This was due to the late creation of the BEGES, and its subsequent poor performance.<sup>426</sup> According to the World Bank Inspection Panel, 'The problems with the performance of BEGES were well-known...DFID's 2012 and 2013 reports noted dissatisfaction with BEGES' performance. In 2013 the DFID Review argued that lack of effective continuity in BEGES, and weak enforcement of contractors' obligations regarding environmental and social impact mitigation were serious concerns.'<sup>427</sup>

### Additional Funding - Round 2

The Bank started planning its second additional financing programme (i.e. a third phase of funding) worth \$125 million in 2015, and which was approved in March 2016.<sup>428</sup> Under this, as well as helping to maintain the 2,732 kilometres of road which it claimed had been reopened by then, and to complete sections such as Dulia-Bondo which had not been done previously due to cost overruns, the programme would also add some important new sections. These included from Komanda in Ituri Province to Mahagi near the border with Uganda; Beni to Kasindi, also on the Ugandan border, and; Kisangani to Walikali and then Walikali to Bukavu.<sup>429</sup>

The latter two sections were particularly controversial. As the Bank noted in its preliminary documentation, the 80 km Beni-Kasindi route (the RN4) 'crosses Virunga National Park for about 10 km and runs along it for the remaining distance. Indigenous People Mbuti Asua lives in these areas. This section is especially challenging because it is the main export route of timber, mostly illegally exploited, to Uganda.'<sup>430</sup> The 200 km Walikali-Bukavu route (the RN3) on the other hand, 'crosses mountain forests, including the Kahuzi-Biega National Park (KBNP), for about 20 km, and areas populated by Indigenous People Batwa.'<sup>431</sup> The latter was later decided by the Bank to be postponed until a 'Second High-Priority Roads Reopening and Maintenance Project' was initiated – which as noted above is still in the Bank's project pipeline as the DRC 'Transport and Connectivity Support Project.'

The Second Additional Financing programme triggered six World Bank safeguards. Bank staff claimed that while 'The roads to be rehabilitated under Additional Financing 2 traverse forests and fragile ecosystems. This is the case of most of road sections (NR2, NR3, NR4 and NR27). The revised ESMF and mainly the ESIA prepared for this road section include specific sections on managing forestry issues.'<sup>432</sup> As with the earlier financing arrangements, as well as the actual road building, the funding would provide capacity building to the DRC government and an environmental and social component – for which the previous institutional arrangements would stay in place.

As noted below, however, this third phase of the project quickly ran into serious problems as well, eventually leading to its suspension.

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424 World Bank, 2016  
425 World Bank, 2016  
426 DFID, 2014  
427 The Inspection Panel, 2018  
428 World Bank, 2016c  
429 World Bank, 2015b  
430 World Bank, 2015b  
431 World Bank, 2015b  
432 World Bank, 2015b

### 4.8.3 SOCIAL IMPACTS

#### Safeguards without indicators, reporting, or follow-up

The original ESIA asserted, wrongly, that ‘only one’ of the roads to be repaired under Pro-Routes (the RN5 between Uvira and Kasomeno) ‘passes within 100 km of an area used by indigenous people.’<sup>433</sup> In the case of the RN5, the Indigenous Peoples Planning Framework (IPPF) prepared for the project in conformity with the World Bank indigenous peoples’ safeguard ‘confirmed the presence of pygmies there.’ However, this was somewhat dismissed by claiming that these Twa people no longer carried out long hunting trips and ‘have instead made their objective the establishment of an improved sedentary way of life.’<sup>434</sup>

The IPPF suffered from similar problems to that of the early ESIA: some of the measures advocated were not unreasonable, even progressive, but had little or no chance of actually being implemented in the absence of strong political will (especially by the Bank) and the recruitment of suitable expert organisations and individuals. Thus three key elements of the Framework were:

- ‘to assist the Twa in acquiring formal rights to their land in those areas where they enjoy none. This is a difficult and delicate matter. It is raised in this report, but needs confirmation as part of the [Indigenous Peoples’ Planning] process;
- reinforcing the capacity and the identity of Twa groups, to enable them to be recognized and represented as such towards the administration (the formal recognition of localities), towards customary Bantu power structures and towards local politicians;
- that their ability to manage their natural resource base, in partnership with their Bantu neighbors, be reinforced through a process of participatory community natural resource management.’<sup>435</sup>

The cost of achieving all this was estimated at \$2,902,700 ‘if one includes a provision for land acquisition, and \$1,572,000 without it’<sup>436</sup> - which, with the benefit of hindsight, can be seen to be a tiny fraction of what would have actually been required to make any progress with the stated aims. Notably, the project documentation seemed to indicate no real knowledge of how many indigenous peoples were present, nor where exactly they were. As it was, it seems there was very little attempt in the first phase of the project to measure the progress of these supposed efforts, as the Bank’s project indicators included nothing whatsoever about its social impacts and safeguarding measures.<sup>437</sup>

In 2012, four years after the project had started, the independent Environmental and Social Panel found, in relation to some specific recommendations for the Indigenous Peoples Plan (IPP) that had been drawn up for the first routes,<sup>438</sup> that it ‘has not yet been implemented correctly, perhaps due to the lack of basic socio-economic data, [a] lack which should have been filled in large part by unrealized services from BEGES in the period of the first 6 months of its mandate as defined in his technical proposal. But this may also be due to the replacement of the BEGES [anthropological] expert three times.’<sup>439</sup> Beyond this however, the ESAP did not comment specifically on the IPP in its following and only other published report.

In 2013, a specific plan was drawn up, with the support of DFID, in relation to the estimated 269 indigenous ‘Pygmy’ people living in the vicinity of Libenge (in what is now Sud-Ubengi province) on the Akula-Zongo route. With a budget of nearly \$500,000, this set out a programme to: ‘reinforce the capacity of local NGOs to work with IPs; create multi-stakeholder platforms and training of community leaders; support operational community organisations within IP communities; promote education and literacy among IPs; support water and sanitation micro-projects in IP villages and camps, support agricultural production capacities and construct a health centre.’<sup>440</sup> However, there are no reports available of whether this programme was actually implemented, and if so whether it was successful or not.

433 DRC-MITP, 2007  
 434 World Bank, 2008b  
 435 World Bank, 2008b  
 436 World Bank, 2008b  
 437 World Bank, 2011c  
 438 RDC, 2011b  
 439 RDC, 2012  
 440 RDC, 2013b

Three years later, the Bank documentation for the first additional financing programme recognised that, as well as the eastern route, the northern route also passed through 'areas inhabited by indigenous Aka pygmy groups.'<sup>441</sup> However, beyond this there is no further reporting on indigenous peoples, the project's impact on them, or any mitigation measures taken. As noted in the following section, there are no indicators or monitoring of indigenous peoples included in the Bank's results or the indicator framework they used,<sup>442</sup> and indeed there isn't a single mention of these issues in the 22 Implementation Status & Results Reports of the project, issued by the Bank between 2008 and 2019 (noting that a number of them are not available in the public domain).

In short, it appears that indigenous peoples' issues were treated cursorily at best in the execution of the programme, even though it was known from the outset that the Bank's IP safeguard had to be complied with.

### Official complaints and financial suspension

Concerns about whether the Bank's safeguard policies had been properly implemented started surfacing early. According to DFID, 'Prior to the 2013 Annual Review, concerns had been raised by the committee charged with oversight of the social and environment component (PECES) that suggested the project might be in breach of WB safeguard policies in regard to environmental compliance by works contractors.'<sup>443</sup> However, the Bank's long-running and institutionalised failure to properly manage and apply safeguards came to a head in 2017, when a complaint was filed to the World Bank Inspection Panel which alleged that, as a result of the project, there had been 'Loss of property, loss of livelihoods, use of violence against the community – including gender-based violence (GBV), and seizure of indigenous communities' resources as a result of the Project's implementation. Specifically, it alleged the Congolese Armed Forces (Forces Armées de la République Démocratique du Congo or FARDC), engaged by the Project's Contractor to provide security, have occupied a quarry that is operated by the Requesters and is their source of income and livelihood. The Requesters also claimed there has been violence against the community and sexual violence against women during Project implementation... The Requesters claimed the two communications addressed to Bank Management in April and June 2017, respectively, went unanswered.'<sup>444</sup>

After a year-long investigation, the Panel's conclusions were damning. It essentially upheld all the complaints and found, inter alia, that Bank management had been in multiple breach of its Environmental Assessment safeguard (OP/BP 4.01), the Involuntary Resettlement safeguard (OP/BP 4.12), and the Investment Project Financing policy (OP/BP 10.00). Critically, it found that 'The institutional assessment in the context of Project preparation, improperly considered capacity constraints and weaknesses experienced in previous phases of the operation,' and 'the Management's design and preparation of the Project [is] in non-compliance with Bank Policies on Investment Project Financing (OP/BP 10.00) and Environmental Assessment (OP/BP 4.01).'<sup>445</sup> It also noted the Bank Management's 'failure to monitor the Project and provide adequate implementation support to address weaknesses in the Project's complex system of monitoring and supervision, to capture implementation problems, or to propose corrective actions [was] in non-compliance with Bank Policies on Investment Project Financing (OP/BP 10.00) and Environmental Assessment (OP/BP 4.01).'<sup>446</sup>

The Panel further offered a general analysis of the problems which included that 'Project preparation and implementation, which was compressed in time, failed to identify key risks in sufficient detail and to develop effective mitigation measures. Shortcomings in Bank supervision during implementation was an amplifying factor which, instead of resolving problems in a timely manner, led to their escalation.'<sup>447</sup>

According to the assessment in this report, these factors also apply to the Bank's woeful management of the environmental impacts of the project. Consequently, in November 2017, the World Bank suspended disbursements for all civil works under the second additional financing of Pro-Routes – though resumed them a year later, after supposedly responding to the Panel's report. As the following section indicates, whatever steps were then taken, improving on environmental monitoring (and thus compliance with OP 4.01) appears not to have been one of them.

441 World Bank, 2011b

442 World Bank, 2018c

443 DFID, 2014

444 The Inspection Panel, 2018

445 The Inspection Panel, 2018

446 The Inspection Panel, 2018

447 The Inspection Panel, 2018

#### 4.8.4 ENVIRONMENTAL AND SOCIAL MONITORING

As noted above, the Environmental and Social Panel (ESAP) had already reported that there did not seem to be a logical connection between the environmental objectives of the project, its activities, or what was actually being monitored and reported on (i.e. the indicators). It is, in fact, not at all clear how the indicators were chosen or why, or how it was thought they would be useful. For example, for the indicator of the amount of illegal timber found at road checkpoints from commercial logging operations, it was realised from nearly the beginning that there were no commercial logging operations on that road, and that the indicator was useless. Even when applied to timber from all sources (i.e. artisanal loggers, individual use etc.), the fact that large amounts of illegal timber were being found said nothing at all about whether the road had caused this, or whether any mitigatory measures were being taken in response.

The ESAP had also noted in 2013 that there appeared to be no database of the results of checkpoint inspections. As the independent study by the Arcus Foundation later reported in 2018, despite the various claims and reports made by the Bank about anti-poaching measures, 'In author interviews, various stakeholders indicated that ongoing activities included anti-poaching patrols, meetings with local communities and collaboration with community-based organizations, yet none of these assertions is supported by verifiable reports, nor were such activities evident on the ground during this review.'<sup>448</sup> In fact, whilst the Bank's reports and numerous project indicators for poaching and bushmeat controls lent an air of credibility to this environmental mitigation measure, Arcus's study also 'uncovered limited evidence that the mitigation measures were actually being applied. Road checkpoints are the only visible sign of such activity, but the staff does not appear to keep organized records.'<sup>449</sup>

During 2016, after the second additional financing project was implemented, all the environmental and social indicators were changed.<sup>450</sup> Those for the development of participatory local environmental management plans simply disappeared, presumably because in the eight years of the project until then, not a single one of the ten expected had been developed.<sup>451</sup> This did not hinder, however, the re-opening of more than seventy percent of the originally planned roads by that time.<sup>452</sup> A new indicator, 'Number of MECNT and ICCN staff trained and active in implementing laws and accompanying local initiatives' was added, and this was reported to have been almost completely achieved (470 staff out of a target of 500 trained) by 2017.<sup>453</sup>

For most of the project (until 2016) the Bank had not used an indicator of actual deforestation rates in the areas affected by the roads, nor appeared to monitor it, even though the data was readily available from remote sensing sources. From 2016, the Bank included deforestation 'within a bandwidth of 10 kilometers centered on the project's road sections' as an indicator.<sup>454</sup> However, inspection of the eight World Bank Implementation and Status reports for the project between June 2016 and December 2019 shows that there was no variation whatsoever reported for the deforestation rate in any of the five locations (recorded at between 5 and 15 percent respectively) at any time during the period, nor in comparison to the September 2015 baseline figures (see Table 2). Given that the deforestation rate is known to have fluctuated (but trended upwards) in DRC during that period, especially close to population centres,<sup>455</sup> it is inconceivable that the Bank's reported figures could have resulted from real monitoring under a credible methodology and were being accurately reported (for example, see the following satellite imagery).

448 Rainer et al, 2018

449 Rainer, H et al, 2018

450 World Bank, 2016b

451 World Bank, 2016

452 World Bank 2015c

453 World Bank, 2017f

454 World Bank, 2016b

455 See for example, Global Forest Watch, passim

**Table 2: World Bank reporting on environmental indicator ‘Deforestation rate within a bandwidth of 10 kilometers centered on the project’s road sections’**

Route	Baseline	Report sequence number and date								Target
		#15 June 2016	#16 Jan 2017	#17 Aug 2017	#18 Dec 2017	#19 June 2018	#20 Jan 2019	#21 Jul 2019	#22 Dec 2019	
Dulia-Bondo	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Akula-Gemena-Zongo	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Beni-Kasindi	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Komanda-Bunia-Goli	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Bukavu-Goma	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

In 2017, the Bank made the admissive statement that while ‘The contract of the space-borne monitoring services and the memorandum of Understanding with the Directorate of Forest Inventory and Facility (Direction des Inventaires et Aménagements Forestiers – DIAF) of MEDD for ground verification of results from the satellite imagery are performing satisfactorily....the use of the results of these services to inform or to help update the environmental and social impact mitigation measures by the BEGES is not effective.’<sup>456</sup>

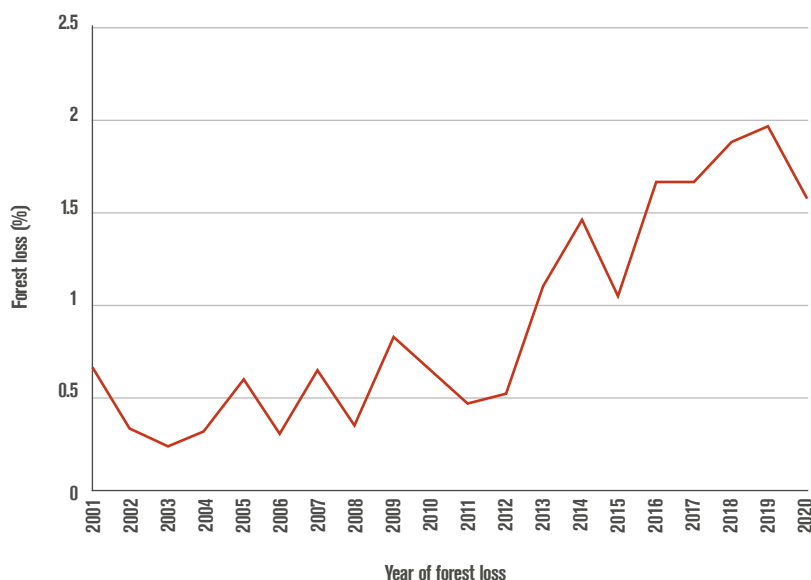
The Bank evidently failed to address whatever problems were occurring as a result of this, however, and continued for the remainder of the project to report deforestation figures which were completely meaningless (and must have been completely fabricated), without any further explanation. Moreover, it is not clear why two routes – Kisangani-Beni and Kasomeno-Uvira – were excluded from the Bank’s deforestation monitoring, especially when the former had been identified as being a particularly sensitive route in terms of environmental impacts.



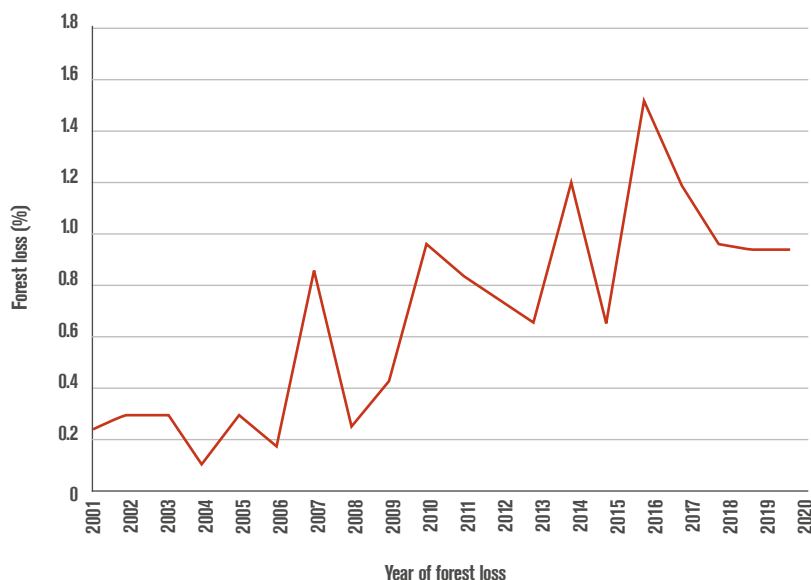
**Figure 8: Forest loss for the years 2016-2019, using a 10km bandwidth centred along the Akula-Zong Road.**  
Source: Hansen/UMD/Google/USGS/NASA and Planet imagery

Using the tree loss data provided by the University of Maryland/Hansen, RFUK has analysed the deforestation on these routes, the results of which are shown below in Figures 9 and 10. (Note that as the Hansen tree loss data are annual, for a calendar year, there is not an exact correspondence with the Bank's reporting periods, but the timings of the two sets of data are roughly comparable).

**Figure 9: Tree loss, by year, using a 10 km bandwidth centred on the Kisangani-Beni road, 2001-2020 (%)**



**Figure 10: Tree loss, by year, using a 10 km bandwidth centred on the Uvira-Kasomeno road, 2001-2020 (%)**



Both of these show upward trends coinciding with the Pro-Routes rehabilitation programme, but the data for the Kisangani-Beni route is particularly striking (illustrated by planet imagery below). The road had in fact been re-opened in 2009 through a separate Bank-funded programme, but the 2011 Pro-Routes additional financing paid for it to be restored and again upgraded. The Bank's programme document for this noted that 'This road crosses 300 km of sensitive rainforest area and will require diligent social and environmental safeguards.'<sup>457</sup> This was evidently unforthcoming, and the major uptick in deforestation along its route – to levels around twice the national DRC average – exactly coincides with the Bank's programme.



Taken together, this analysis of the supposed use of deforestation data as an indicator of environmental performance by the Bank, was highly flawed as: the choice of the baseline rate of deforestation was completely inexplicable as it in no way reflected the reality of deforestation in the respective areas; the omission of two routes from the monitoring, especially the Kisangani-Beni road, is also inexplicable and may have been deliberate in order to conceal serious negative impacts on what had been repeatedly recognised as a particularly sensitive area of forest;

and finally, if there ever had been any real monitoring of the deforestation rate in the areas concerned, it must have been based on some methodology which showed no change at all. It is more likely that the monitoring simply was not being undertaken, or not reported to BEGES or the Bank.



**Figure 11: Forest loss for the years 2016-2019, using a 10km bandwidth centred along the Kisangani-Bunduki Road.**

*Source: Hansen/UMD/Google/USGS/*



**Figure 12: Forest loss for the years 2016-2019, using a 10km bandwidth centred along the Beni-Kisangani Road.**

*Source: Hansen/UMD/Google/USGS/*

Furthermore, an analysis of the two other environmental indicators – those concerning the illegal timber trade, and bushmeat/protected species trafficking – also show some serious issues. For the purposes of this study, an analysis was conducted on these indicators across the eight World Bank Implementation and Status reports for the project between June 2016 and December 2019.

As can be seen from the results in Tables 3 and 4 below, no monitoring at all appears to have happened on three of the seven routes, even though the Bank reported that work on these sections was well underway by August 2017 (report 'sequence #17' below).<sup>458</sup> For the other routes, monitoring work was also halted during the time of the Bank's suspension of funding for the project, between November 2017 and the end of 2018.

**Table 3: World Bank reporting on environmental indicator, 'Percentage of protected species in the monthly count of bushmeat checked at selected control points along;'**

Route	Baseline	Report sequence number and date								Target
		#15 June 2016	#16 Jan 2017	#17 Aug 2017	#18 Dec 2017	#19 June 2018	#20 Jan 2019	#21 Jul 2019	#22 Dec 2019	
Akula-Gemena-Zongo	30%	80.9%	75.46%	90.4%	90.4%	90.4%	30%	30%	30%	70%
Kisangani-Dulia-Bondo	30%	96%	94.81%	95.02%	95.02%	95.02%	30%	30%	30%	85%
Kasomeno-Uvira	20%	75%	81.89%	70.55%	70.55%	70.55%	20%	20%	20%	65%
Kisangani-Beni	30%	94%	91.49%	90.89%	90.89%	90.89%	30%	30%	30%	85%
Komanda-Bunia-Goli	100%	100%	100%	100%	100%	100%	95%	95%	95%	95%
Beni-Kasindi	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%
Bukavu-Goma	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%

**Key:** The results table is coloured as follows:

	Monitoring appears to have been undertaken
	Reported results indicate that no monitoring was ever undertaken
	No monitoring occurring due to funding suspension
	Monitoring supposedly resumed, but all figures simply revert to baseline

In 2017, the Bank reported that 'The functioning of the checkpoints for traded timber and bushmeat movements along the roads sections that are already reopened under the project is performing well. However...the sustainability of these checkpoints remain a challenge that has been discussed with the [Government of DRC]. These discussions also concern (sic) the inclusion of the checkpoints staff in the regular staff of [the environment ministry] MEDD to ensure permanent operations at these points after February 2018.'<sup>459</sup>

However, by all appearances, these discussions were not fruitful as all monitoring ceased shortly after. No explanation for this is given in the World Bank's reports. Similarly, no explanation has been offered in any of the monitoring reports as to how or why the reported deforestation rates in the proximity of the rehabilitated roads have remained exactly the same for four years. Rather than (more honestly) leaving the reporting forms blank and providing an explanation, the Bank's progress reports on environmental impacts have consisted mostly of what are entirely fictitious data.

**Table 4: World Bank reporting on environmental indicator 'Percentage of illegal timbers in the monthly volume of handicraft timber checked at selected control points along:'**

Route	Base-line	Report sequence number and date								Target
		#15 June 2016	#16 Jan 2017	#17 Aug 2017	#18 Dec 2017	#19 June 2018	#20 Jan 2019	#21 Jul 2019	#22 Dec 2019	
Kisangani-Bunduki	100%	65.84%	76%	44.31%	44.31%	44.31%	100%	100%	100%	70%
Kisangani-Beni	100%	9%	35.7%	36.7%	36.7%	36.7%	100%	100%	100%	85%
Kalemie-Uvira	100%	100%	90%	71.49%	71.49%	71.49%	100%	100%	100%	80%
Akula-Gemena-Zongo	50%	100%	4.9%	6.61%	6.61%	6.61%	100%	100%	100%	85%
Komanda-Bunia-Goli	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%
Beni-Kasindi	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%
Bukavu-Goma	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%

**Key:** The results table is coloured as follows:

- Monitoring appears to have been undertaken
- Reported results indicate that no monitoring was ever undertaken
- No monitoring occurring due to funding suspension
- Monitoring supposedly resumed, but all figures simply revert to baseline
- Monitoring possibly happening but with anomalous results reported

Setting aside the major problems of the indicators which were selected, there are also serious questions about those which were not included at all:

- Despite the strong emphasis which was placed by the Bank on 'participatory natural resources management' and 'participatory land use planning and sustainable livelihood opportunities' as a means of mitigating risks to forests and others areas (reflecting the ESIA recommendations dating back to 2007), no indicators related to community-based management were included in the results framework or monitoring and reporting programme. There is no evidence, in fact, that any such work was ever undertaken.
- Despite clear warnings in some of the ESIA's, there were no indicators related to wider and cumulative impacts, nor long-term monitoring plans for them put in place. In 2014, DFID itself noted that 'management and monitoring of indirect and longer term impacts of road construction necessarily need to extend beyond the construction period;' and following its exit from Pro-Routes, attempted to prioritise this in its separate roads project in the East by 'maintaining a social and environmental management and monitoring function for several years after completion of the physical works.'<sup>460</sup>

- Despite the known risks to several national parks and other reserves, there was no indicator related to protected areas.
- There were no indicators at all related to indigenous peoples, to reflect the requirements of the Indigenous Peoples' Plan, nor were there any for other communities whose lands would be impacted by the project.

Taken together, therefore, there is a strong appearance that the environmental indicators were haphazardly chosen, with many key and obvious indicators omitted, perhaps deliberately. It also strongly appears that for most of those which were used, there was no actual monitoring going on for at least part of the period if not all of it, as none of the environmental indicators showed any meaningful results over the last four years of the project. For the period of the project suspension this would be expected, but no monitoring appears to have been implemented once the project had been reinstated. As well as meaning that project management was left completely adrift in terms of the large and important environmental and social component, it was also in contravention of several of the Bank's safeguards.



*"Responding to increased pressure from communities, civil society and media, the World Bank admitted publicly it had no idea how many people may have been forced off their land or lost their jobs due to its projects. The Bank also did not know whether these people were compensated fairly, on time or at all."*  
 Source: *The International Accountability Project, 2015*

#### 4.8.5 CONCLUSIONS TO THE CASE STUDY

The Pro-Routes project in many ways illustrates the multiple difficulties of undertaking large complex infrastructure projects in challenging environments, including conflict zones. Few would deny that DRC needed and still needs an improved road network. On the other hand, the project also highlights the World Bank's chronic weakness in ensuring proper environmental and social impact mitigation. Many overall conclusions can be drawn, including:

- The Bank appeared from the outset to be proceeding on the basis of very poor knowledge of the environmental circumstances of the areas in which the project was operating. In particular, the Bank and its consultants had almost no real understanding of the social dynamics of the various communities through which the roads passed, nor the relationship of those communities to the land, markets, each other, or development opportunities. It is clear that the Bank had almost no idea of what indigenous populations were living where, or which might be affected by the road-rehabilitation project, even some years into it.
- The Bank evidently accepted (and indeed itself repeated) mitigation measures – proposed by the various consultants recruited to write ESIA's – which it could easily have ascertained had no legal basis and no history of development in DRC at the time (such as 'community-based natural resource management'), meaning that they were very unlikely even to be implemented, let alone to succeed.
- The Bank set out institutional measures for oversight of environmental and social mitigation, especially the recruitment of a suitably qualified international NGO, that also had no basis in reality. When these measures failed, it was forced to rely on a private consultancy (BEGES) which had no expertise in related work, and no outreach at the community level.
- The Bank appears to have almost completely ignored key concerns raised not only by the Environmental and Social Panel, but other donors such as DFID, and many of the recommendations made in the various ESIA's.
- The promises made by the Bank with respect to 'community-based natural resource management' under Pro-Routes, bear remarkable similarities to those proposed under other major Bank programmes in DRC, such as the Forest and Nature Conservation Programme (PnFoCo) and Mai Ndombe PIREDD. The absolute failure to actually implement these measures is in fact common to all three.<sup>461</sup>
- As with numerous of the other case studies in this report, the Bank allowed environmental and social mitigation measures (and even the basic studies on which they would be based) to lag many years behind the actual implementation of the project.
- Although some of the ESIA studies were detailed and contained many useful recommendations, it is clear from the Bank's project monitoring framework that the implementation of this component was very much a secondary or tertiary consideration. Project milestones and thus monitoring frameworks for this element of the project were very limited in scope (and missing many key elements altogether), frequently changed or downgraded, and apparently not acted upon.
- As with other case studies in this report, the implementation of measures to deal with the wider, indirect and cumulative impacts of the programme were almost non-existent.

## 5. CONCLUSION AND RECOMMENDATIONS

### 5.1 CONCLUSIONS

The Congo Basin countries are intending to embark upon a development path of energy and transport infrastructure, for which an undeniable need exists. Yet, the current approach to such development is causing unnecessary harm to both the environment and local communities. As yet, the direct impacts have been relatively limited, compared to those likely to be seen in the next era of much larger developments.

A vast expanse of forest in the Cameroon/Congo/Gabon border area is under threat, along with its many indigenous inhabitants, and large areas of forest in northern and eastern DRC have already been affected by the Pro-Routes project. Many more areas to come will be as well, if development and infrastructure projects continue to be initiated with the same degree of negligence towards environmental and social issues, as that demonstrated by the case studies in this report.

The role of Chinese firms and financing in the region's infrastructure development is only likely to increase in the future. However, the safeguarding and governance requirements (such as transparency) of these bodies, are not as well developed as those of longer-standing institutions, such as the World Bank. Nevertheless, they might eventually play a critical role in ensuring that environmental and social standards are upheld – in a way that those of the Bank have not been. This would however, require a significant change of approach in Beijing.

It is also clear that most if not all Congo Basin governments seriously lack the capacity (and in some cases perhaps, the desire) to properly oversee large infrastructure projects. International agencies such as the World Bank have attempted to build such capacity along with the infrastructure they have funded, but it is not clear that this has had sustained results. 'Capacity building' can be, and often is, synonymous with unaccountable slush funds available to officials and decision-makers. Much greater scrutiny over the use of such funds needs to be applied; and more generally, there is a need to attach much stronger conditionality to funding to uphold stronger governance and safeguarding of such large projects.

While REDD+ programmes in the Congo Basin have invariably targeted subsistence farming as the main driver of deforestation, they have almost completely overlooked the role of infrastructure development. Such development is known to have been an underlying driver of forest destruction across large parts of the Amazon. It is particularly problematic that some of the key financial supporters of REDD+ (especially the World Bank), are simultaneously funding these large infrastructure projects.

A more effective approach to protecting natural resources would be to focus on rights-based solutions that secure community tenure, strengthen self-governance, and deliver direct support to traditional custodians.



*Through a participatory land use planning process, communities can gain greater control over their traditional territories, and plan out the best resource-use to achieve long-term, sustainable development. Source: RFUK/GeoFirst*

## 5.2 RECOMMENDATIONS

The following sets of recommendations are proposed address and counter these challenges, and promote improvement in terms of environmental and social impacts, in the current approach to energy and infrastructure projects in Congo Basin countries.

### 5.2.1 RECOMMENDATIONS TO CONGO BASIN GOVERNMENTS

With the overall responsibility for ensuring that infrastructure projects are developed, assessed and implemented to the highest possible standards, governments in the region should:

- Adopt a more inclusive analysis of the costs of energy and transport infrastructure projects. The evaluation and consideration of a project must include the short, medium and long-term effects on the environment; including the forest's role in the hydrological environmental cycle and in climate regulation. Negative impacts on forest-dependent people and communities must also be assessed, including those related to their livelihoods, health, water and food resources, as well as the cultural existence of the community.
- Enhance transparency in infrastructure plans and development, including through the adoption of transparency laws relating to contracts for infrastructure projects.
- Adopt and enforce legislation requiring businesses working on infrastructure projects to carry out, and fully disclose, the environmental and social assessments of proposed projects.
- Adopt and enforce legislation requiring infrastructure project implementers to carry out due diligence processes to identify, prevent, mitigate and remedy adverse human rights impacts.
- Pay greater attention to the extent to which persons and communities, living in or near the forest, benefit from these projects. As many are linked to the expansion of industrial production, or intended primarily for the export of raw materials, environmental and social assessments of proposed projects should include input from potentially affected communities; and the result of these assessments should be incorporated early into the decision-making process.
- Foster stronger governance and address legal gaps relating to environmental and social protection. In particular, ensure there is better governance relating to land management and forest protection, as well as the provision of general security and peace. Infrastructure projects should take place in the context of participatory and multi-sectoral land use planning that strengthens and secures the tenure rights of local communities and indigenous peoples, so that they can receive their fair share of revenues and protect their lands from encroachment and the depletion of resources.
- Ensure full protection of the rights of indigenous peoples through the ratification of ILO Convention 169, and the adoption and implementation of laws protecting indigenous peoples' rights; including their rights to lands and resources traditionally used by them, and their right to free, prior and informed consent.
- Adopt regulatory requirements ensuring mechanisms for meaningful consultation, participation, and grievance and access to remedy by persons potentially or actually impacted by infrastructure projects, throughout the life of the project.
- Carry out detailed assessments of the viability of hydropower potential, considering impacts from changing weather and rainfall patterns resulting from climate change.
- Fully take into account the direct, indirect, and cumulative impacts of existing and planned infrastructure projects, and the extractive industries they serve, in national REDD+ investment frameworks (NIFs) and in the submission of nationally determined contributions (NDCs) to the Paris Climate Accord.

## 5.2.2 RECOMMENDATIONS TO DONORS AND FINANCIERS

Organisations and institutions which provide crucial financial, policy and technical support to Congo Basin governments must ensure that their engagement encourages stronger environmental and social performance. To enable this outcome, donors and financiers should:

- Ensure that the indirect and cumulative impacts of projects are fully considered (in addition to direct impacts), and that plans to mitigate them are developed in advance of project commencement through proper compliance with international standards for ESIA's.
- Apply safeguard policies with much more rigour, including by: investing more resources in their monitoring, reporting and follow-up – which should continue well beyond the end of the actual construction project into the period when indirect and cumulative impacts are likely to become apparent; applying clearer and more demanding environmental and social performance indicators in advance; and setting the achievement of these as payment conditions.
- Implement a more systematic costing in of environmental and social mitigation measures from the outset, and set aside contingency funds in all major infrastructure projects to allow for the mitigation of unforeseen impacts.
- Improve transparency, oversight, standards and coordination on infrastructure development, potentially by forming an independent regional body akin to the Extractive Industry Transparency Initiative (EITI), with a mechanism for reporting of contracts, plans, ESIA's, etc. – this could also include a regional database on existing projects, whether in the planning phase or under development.
- Take measures necessary to ensure that Letters of Intent (LOI) to protect Congo Basin forests contain sufficient conditions concerning the public disclosure and due diligence of infrastructure projects as well as plans to mitigate their impacts.
- Ensure greater coherence between funding for infrastructure projects and for REDD+, including by greater public scrutiny of such funding within key donor countries (such as the UK, Norway and Germany), as well as between them.
- Step up efforts to bring China and other investors into multilateral forest conservation initiatives, such as CAFI, to avoid parallel processes and misplaced policy prescriptions.

## 5.2.3 RECOMMENDATIONS TO COMPANIES

As the parties usually carrying out infrastructure projects and in most direct contact with affected communities, companies need to ensure that they are carrying out their work in a manner which ensures respect for local rights and environmental sustainability. In practice, companies working on infrastructure projects should:

- Implement a due diligence process that allows them to identify, prevent, mitigate and remedy adverse human rights impacts, as well as undertake environmental and social assessments both prior to implementation, and periodically throughout the life of the project. The results of these assessments should be made public, along with the responsive mitigation measures planned to address any identified risks or concerns.
- Establish a transparent, accessible, and rights-compatible grievance mechanism that provides fair and effective remedy for individuals and communities negatively affected by infrastructure projects.



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