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IMPLEMENTATION COMPLETION AND RESULTS REPORT

ON A

GRANT

IN THE AMOUNT OF

US$ 9.055 MILLION EQUIVALENT

TO THE

Ministry of Finance

FOR THE

Wildlife and human-elephant conflicts management in the South of Gabon (P157249)

July 31, 2023

Environment, Natural Resources & The Blue Economy Global Practice
Western And Central Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective {Date of submission to Board})

Currency Unit	=	
	=	US$1
US$	=	SDR 1

FISCAL YEAR
July 1 - June 30

Regional Vice President:

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ABBREVIATIONS AND ACRONYMS

AFD	French Development Agency *(Agence Française de Développement*
ANPN	National Agency of National Parks *(Agence Nationale des Parcs Nationaux)*
BD	Biodiversity
CCGL	Local Management Consultative Committee *(Comité Consultatif de Gestion Locale*
CDC	National Deposit Bank *(Caisse des Dépôts et Consignations)*
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPS	Country Partnership Strategy
DA	Designated Account
DGEPN	General Directorate for the Environment and Nature Protection (*Direction Générale de l'Environnement et de la Protection de la Nature)*
DGFAP	Directorate General for Fauna and Protected Areas (*Direction Générale de la Faune et des Aires Protégées*) within the Ministry in charge of Environment and Forests
DGPA	General Directorate for Fisheries and Aquaculture *(Direction Générale des Pêches et de l'Aquaculture)*
DL	Disbursement Letter
DP	Development Partner
EIA	Environmental Impact Assessment
ETIS	Elephant Trade Information System
EOI	Expression Of Interest
EPI	Elephant Protection Initiative
ESMF	Environment and Social Management Framework
EU	European Union
FAO	Food and Agriculture Organization of the UN
FCFA	Franc of the Financial Community of Africa (Central African Franc)
FM	Financial Management
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gas
GoG	Government of Gabon
GRS	Grievance Redress Service (of the WBG)
GWP	Global Wildlife Program
HEC	Human-Elephant Conflict
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICCWC	International Consortium on Combating Wildlife Crime
IDA	International Development Association
IFR	Interim Financial Report
IGAD	Gabon Institute for Development Support *(Institut Gabonais d'Appui au Développement)*
IPF	Investment Project Financing
IPP	Indigenous Peoples Plan (*Plan des Populations Locales et Sensibles*)
IRET	Tropical Ecological Research Institute *(Institut de Recherche en Ecologie Tropicale)*
ISR	Implementation Status and Results

IWT	International Wildlife Trade
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MFA	Multi-Focal Area
MFEPRNM	Ministry of Forest, Environment, Natural Resources and Sea *(Ministère de la Forêt, de l'Environnement, de la Protection des Ressources Naturelles et de la Mer)*
MIS	Management Information System
NCB	National Competitive Bidding
NGO	Non-Governmental Organization
NIAP	National Ivory Action Plan
OHADA	Organization for the Harmonization of Business Laws in Africa (*Organisation pour l'Harmonisation du Droit des Affaires en Afrique*)
OP/BP	Operational Policy/Bank Policy (of the WBG)
PA	Protected Area
PDO	Project Development Objective
PF	Process Framework
PFM	Public Financial Management
PIKE	Proportion of Illegally Killed Elephants
PIM	Project Implementation Manual
PLR	Performance and Learning Review
PIU	Project Implementing Unit
PNAT	Land Use Plan *(Plan d'Affection des Terres)*
POM	Project Operational Manual
PROLAB	Anti-Poaching Program *(Programme de Lutte Anti-Braconnage)*
PSGE	Strategic Roadmap for an Emerging Gabon *(Plan Stratégique Gabon Emergent)*
RAS	Reimbursable Advisory Services
RGPH	Population General Census *(Recensement général de la population et de l'habitat)*
SAI	Supreme Audit Institution
SMART	Spatial Monitoring and Reporting Tool
STAR	System of Transparent Allocation of Resources (of GEF)
STEP	Systematic Tracking of Exchanges in Procurement
TNC	The Nature Conservancy
UNDP	United Nations Development Program
UNGA	United National General Assembly
UNODC	United Nations Office on Drugs and Crimes
USFWS	United States Fish and Wildlife Service
WCS	Wildlife Conservation Society
WHECMP	Wildlife and Human Elephant Conflict Management Project
WWF	World Wildlife Foundation
XAF	Central African CFA Franc

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DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P157249	Wildlife and human-elephant conflicts management in the South of Gabon
Country	Financing Instrument
Gabon	Investment Project Financing
Original EA Category	Revised EA Category
Partial Assessment (B)	Partial Assessment (B)

Organizations

Borrower	Implementing Agency
Ministere des Finances	Agence Nationale des Parcs Nationaux, Direction Generale de la Faune et les Aires Protegees

Project Development Objective (PDO)

Original PDO

To reduce elephant poaching and human-elephant conflicts in the target zones

FINANCING

	Original Amount (US$)	Revised Amount (US$)	Actual Disbursed (US$)
World Bank Financing			
TF-A3107	9,055,046	9,055,046	9,055,046
Total	**9,055,046**	**9,055,046**	**9,055,046**
Non-World Bank Financing			
Borrower/Recipient	0	0	0
Total	**0**	**0**	**0**
Total Project Cost	**9,055,046**	**9,055,046**	**9,055,046**

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
02-Sep-2016	04-Jan-2017	02-Jun-2020	31-Dec-2021	31-Jan-2023

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US$M)	Key Revisions
08-Oct-2021	7.01	Change in Loan Closing Date(s)

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Substantial

RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US$M)
01	01-Dec-2016	Satisfactory	Satisfactory	0
02	18-May-2017	Satisfactory	Satisfactory	.25

03	28-Dec-2017	Satisfactory	Satisfactory	.51
04	03-May-2018	Satisfactory	Satisfactory	1.16
05	21-Aug-2018	Moderately Satisfactory	Moderately Satisfactory	1.78
06	18-Mar-2019	Moderately Unsatisfactory	Moderately Unsatisfactory	2.40
07	23-Oct-2019	Moderately Unsatisfactory	Moderately Unsatisfactory	3.00
08	11-May-2020	Moderately Satisfactory	Moderately Satisfactory	3.94
09	10-Jul-2020	Moderately Unsatisfactory	Moderately Unsatisfactory	4.33
10	14-May-2021	Moderately Satisfactory	Moderately Satisfactory	6.22
11	02-Dec-2021	Moderately Satisfactory	Moderately Satisfactory	7.90
12	03-Jun-2022	Satisfactory	Satisfactory	8.68

SECTORS AND THEMES

Sectors

Major Sector/Sector	(%)
Agriculture, Fishing and Forestry	**100**
Public Administration - Agriculture, Fishing & Forestry	9
Forestry	54
Other Agriculture, Fishing and Forestry	37

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3)	(%)
Public Sector Management	**12**
Data Development and Capacity Building	12
Data production, accessibility and use	12
Human Development and Gender	**20**
Gender	20

Environment and Natural Resource Management		**100**
	Renewable Natural Resources Asset Management	100
		Forests Policies and institutions	19
		Biodiversity	89
		Landscape Management	74

ADM STAFF

Role	At Approval	At ICR
Vice President:	Makhtar Diop	Ousmane Diagana
Country Director:	Elisabeth Huybens	Elisabeth Huybens
Director:	Paula Caballero	Simeon Kacou Ehui
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ICR Co Author:		Ellen J. Tynan

I.   PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Context

1.   Gabon is a resource-rich country located on the west central coast of Africa and bordered by Equatorial Guinea and Cameroon to the north, the Republic of the Congo to the east and south, and the Atlantic Ocean to the west with the islands of Sao Tome and Principe lying off its coast. Gabon is well endowed with arable land, forest, and mineral resources. It has extraordinary biodiversity as well as rich deposits of magnesium and iron ore. It is the fifth-largest oil producer in Sub-Saharan Africa. Gabon is one of Africa's few middle-income countries. According to the World Bank, at the time of appraisal of the Wildlife and Human-Elephant Conflicts Management Project (P157249) in 2016, Gabon's gross domestic product (GDP) had dropped to a little over US$14 billion due to ongoing civil unrest and a drop in oil revenues. The country's growth rate was approximately 2.1 percent in 2016 but would drop over the next year to a low of .05 percent before experiencing a steady rise until the Covid-19 pandemic hit in 2020. Since that time, the country has begun a slow, but steady recovery.[1]

2.   In 2016, the country's population was just under 2.1 million people growing to approximately 2.3 million by 2021. Gabon is one of Africa's most urbanized countries: More than 85 percent of its population lives in urban areas, predominantly in Libreville (the capital), Port-Gentil (the economic capital), and Franceville (in a mining region). The Gabonese population is young, with 50 percent under 19 years of age. The rural population is widely dispersed over the hinterland, where access is difficult. With a per capita forest area of 15 hectares, the pressure of population on forest resources in Gabon is significantly less than in most African countries.

3.   Despite its status as a middle-income country, about a third of Gabon's population is living in poverty. In rural areas, the rate of poverty is double that found in urban areas (approximately 60 vs 30 percent). However, because of its high urban population, most poor people (76 percent) live in urban areas.[2] While the poverty rate dropped slightly since the time of appraisal, absolute numbers of those living in poverty have grown. In addition, the country's human development falls well short of the economy's potential. Gabon ranks quite low—100th out of 156—in progress on the Sustainable Development Goals (SDGs), mainly due to serious deficiencies related to health and decent work.[3]

4.   In 2009, the government launched a new economic vision: Emerging Gabon aimed at modernizing and diversifying the country's economy and transforming it to an emerging economy by 2025. The strategic plan (*Plan Stratégique Gabon Emergent*—PSGE) focuses on accelerating growth and reducing poverty, but also looks to capitalize on Gabon's comparative advantages at both the regional and global levels. The strategy is built on three pillars:

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[1] World Bank national accounts data and OECD national accounts data files. "GDP Growth (annual %) – Gabon."
https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=GA
[2] World Bank. 2020. Gabon Poverty Assessment. World Bank, Washington, DC. © World Bank.
https://openknowledge.worldbank.org/handle/10986/33429 License: CC BY 3.0 IGO
[3] Ibid.

- Industrial Gabon, *Gabon Industriel*, with the aim of developing Gabon into a metallurgic and industrial center of excellence (optimizing oil and mining, construction, building materials, and agro-industrial transformation).
- Green Gabon, *Gabon Vert,* with three major goals:
    - Instituting sustainable forest management and transforming Gabon into a global leader in certified tropical timber production
    - Developing agriculture and livestock farming to improve food security
    - Creating sustainable and responsible fisheries
- Gabon Services, *Gabon des Services*, with the objective of making Gabon a center of excellence in business, ecotourism, and value-added services, such as higher education and research, health, media, and information technologies.

5.   At appraisal, the project was seen as falling with the overall purview of *Gabon Vert* in its overall approach to better understanding and managing some of Gabon's important biodiversity, potential support to wildlife tourism and enhancing food security within communities by reducing Human-Elephant conflict (HEC).

Sectoral and Institutional Context

6.   Gabon is endowed with exceptional biodiversity. As part of the Congo Basin rainforest ecosystem, the world's second-largest area of contiguous rainforest, Gabon has rich faunal and floral wildlife, a variety of landscapes, and an 800-kilometer (km) coastline. The country's wealth of biodiversity is primarily due to its long-standing political stability, but also due to low anthropogenic pressure on natural resources. With a per capita forest area of 15 hectares, the population pressure on forest resources in Gabon is significantly lower than in most African countries. However, at the time, Gabon's natural resource wealth was under threat with wildlife populations declining and forests illegally exploited. Elephant populations were (and continue to be) targeted for their ivory, while other species are targeted to supply the commercial bush meat trade.

7.   In 2016, forest elephants were declining at a rate of about 9 percent per year. Elephant poaching was particularly problematic in the northeast where Gabon shares borders with Cameroon and the Republic of the Congo. At the time of appraisal, large poacher gangs with sophisticated equipment would cross into the country to hunt illegally for a month or more. These gangs would coordinate with the Baka (indigenous forest dwellers) as hunters, guides, and porters. Prior to appraisal, in 2011, an illegal gold mining camp of about 6,000 people was found in Minkébé national park in the northeast of the country and the army was sent to remove them. Subsequent research in Minkébé concluded that about 11,000 elephants had been killed between 2004 and 2012.[4] Other intelligence indicated that a corridor stretching from Gabon's northeast to its southwest was one of Africa's primary ivory smuggling routes for moving illegal ivory off the continent.[5]

8.   Gabon's Forestry Law (No. 016/01 December 2001) provides for protection of species, including elephants. Hunting these species is banned, but low penalties for poaching convictions are not sufficient to deter individuals. The offense is a "wildlife infraction" with a maximum sentence of six months, and a fine of XAF 10,000,000

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[4]ANPN. 2013. At http://awsassets.panda.org/downloads/preliminary_results_of_minkebe_pilot_study.pdf
[5] IUCN. 2012. Elephants in the Dust: The African Elephant Crisis. Figure 14: Primary and secondary ivory smuggling routes in Africa based on a wide range of sources including both ETIS (Elephant Trade Information System) seizures, and criminal intelligence.

(US$6,000). However, offenders typically do not receive the maximum sentence. In addition, given that at the time of appraisal price estimates for ivory ranged from US$2,000 to US$3,000/kg[6], these fines, even if applied, were not proving to be an effective deterrent. At the time of appraisal, a new Forestry Law with more substantial penalties had been drafted and was under review. The new law is now in place and contains a minimum three-year sentence for poaching and has strengthened legislation on wildlife crime in the country.

9.   At the time of appraisal, Gabon's elephants were under siege by poachers and as they attempted to migrate away from poaching areas, and as rural human communities continued to expand, elephant and human populations were increasingly coming into contact. Conflicts in farming communities that border elephant habitat or lie within elephant migration corridors, included elephants damaging crops and villages, and sometimes killing people. Farmers were not protected against crop loss and their approaches to elephant deterrence were ineffective.

10. Poaching and illegal wildlife trade, and the HEC in rural communities in and around national parks, also threatened Gabon's potential for wildlife tourism development. Although ecotourism was not yet an important source of national revenue, its development – particularly high-end ecotourism – was a priority for economic diversification for wildlife tourism in the Gabon Services component of the PSGE.

11. As at the time of appraisal, national parks continue to be the responsibility of the National Parks Agency (*Agence Nationale des Parcs Nationaux,* ANPN). Law 003/2007 established both the ANPN and the National Parks Council (*Conseil National des Parcs Nationaux*, CNPN), the latter being an inter-ministerial government committee that oversees the management of the park network. The country's national park system is extensive, due in large part to the 2002 creation of a network of 13 national parks covering 28,371 km²—10.6 percent of Gabon's surface area. At the time of the project's design and appraisal, the $10 million Global Environment Facility (GEF) grant (the so-called PARC project - *Projet GEF/PARC: Renforcement des capacités pour la gestion des Parcs Nationaux et de la Biodiversité*), administered by the World Bank, was just finishing up. The PARC project helped ANPN to define roles and operational modalities and to set up systems important for its functioning—among them fiduciary management, human resources management, and monitoring and evaluation (M&E) thus enhancing biodiversity management within the parks.

12. Outside of national parks, biodiversity protection is the responsibility of the Directorate General for Fauna and Protected Areas (DGFAP), which is within the Ministry of Forest, Environment, Natural Resources, and the Sea (*Ministère de la Forêt, de l'Environnement, de la Protection des Ressources Naturelles et de la Mer*, MFEPRNM). Due to this delineation of responsibility, important populations of elephant, gorilla and other species residing outside national parks – within forestry and oil concessions, and on village lands – are protected through regulations developed by the DGFAP. However, given species mobility across jurisdictions, it was decided at appraisal that ANPN and the DGFAP would both be required to coordinate their activities to fulfill their respective mandates within the context of the project.

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[6] http://conservationmagazine.org/2015/01/can-there-ever-be-a-legal-ivory-trade/

Theory of Change (Results Chain)

13. While a Theory of Change (ToC) was not developed at the time of the project, the PDO and project design allow for a clear picture of the desired chain of actions and results (See Figure 1). The project design was based on work already completed by the government of Gabon (as discussed above) to establish a network of national parks in the early 2000s. In addition, the strengthening of the country's management of national parks through the GEF-funded PARCs project, and the recognition of the need to utilize a landscape approach to bring areas outside of the network under conservation management were keystones to the design and ToC. Gabon had recognized the importance of park buffer zones, wildlife corridors and management plans for areas outside of national parks and as a result DGFAP (responsible for management of wildlife and conservation outside of national parks) became a key partner to ANPN for conservation. Additional GEF-funded initiatives such as the Sustainable Management of Critical Wetlands project increased the country's experience with this broader landscape and conservation management approach, while Gabon's participation in the Global Wildlife Program provided a strong strategic framework to underpin the project's ToC.

14. Building from the experience and foundations described above, the project ToC's is predicated firstly on raising the state of scientific and observation-based knowledge on elephant populations -- their genetics, behavior, and movements -- to enhance conservation, surveillance, and public awareness. These activities supported the country's implementation of the National Ivory Action Plan and further understanding of human elephant conflict (HEC) and wildlife corridors. The increased knowledge contributed to training of ANPN ecoguards and other key players and to raising public awareness for improved enforcement of existing wildlife protection laws. The other key element of the ToC was the increased knowledge and awareness to support an integrated landscape management approach to both protect the elephants and improve the livelihoods of communities affected by the HECs. Better surveillance through hiring and training new ecoguards, better siting of wildlife corridors, and improved management of wildlife outside of parks in private concession through agreed development plans along with community training all contribute to lessening poaching pressure on elephants. Evidence has shown that when elephants are threatened by poachers, they are likely to leave established corridors and move into areas with human settlements. Those elephants that stray outside their natural habitat as a result of poaching represent a real risk to community livelihoods because their movement into settled areas often results in destroyed crops and reduced farm incomes so a multi-pronged approach to lessening elephants' threats was needed. In addition, to the elephant-focused activities, the project also supported communities directly with improved livelihood interventions and HEC mitigation measures. Thus, with more food security and safer conditions, communities could become more willing partners in conservation and enforcement. This combination of increased knowledge, improved surveillance and corridor management and land use planning helped to minimize negative impacts on communities while increasing safe areas of movements between parks for elephants which taken together would work to achieve the PDO.

Figure 1: Theory of Change
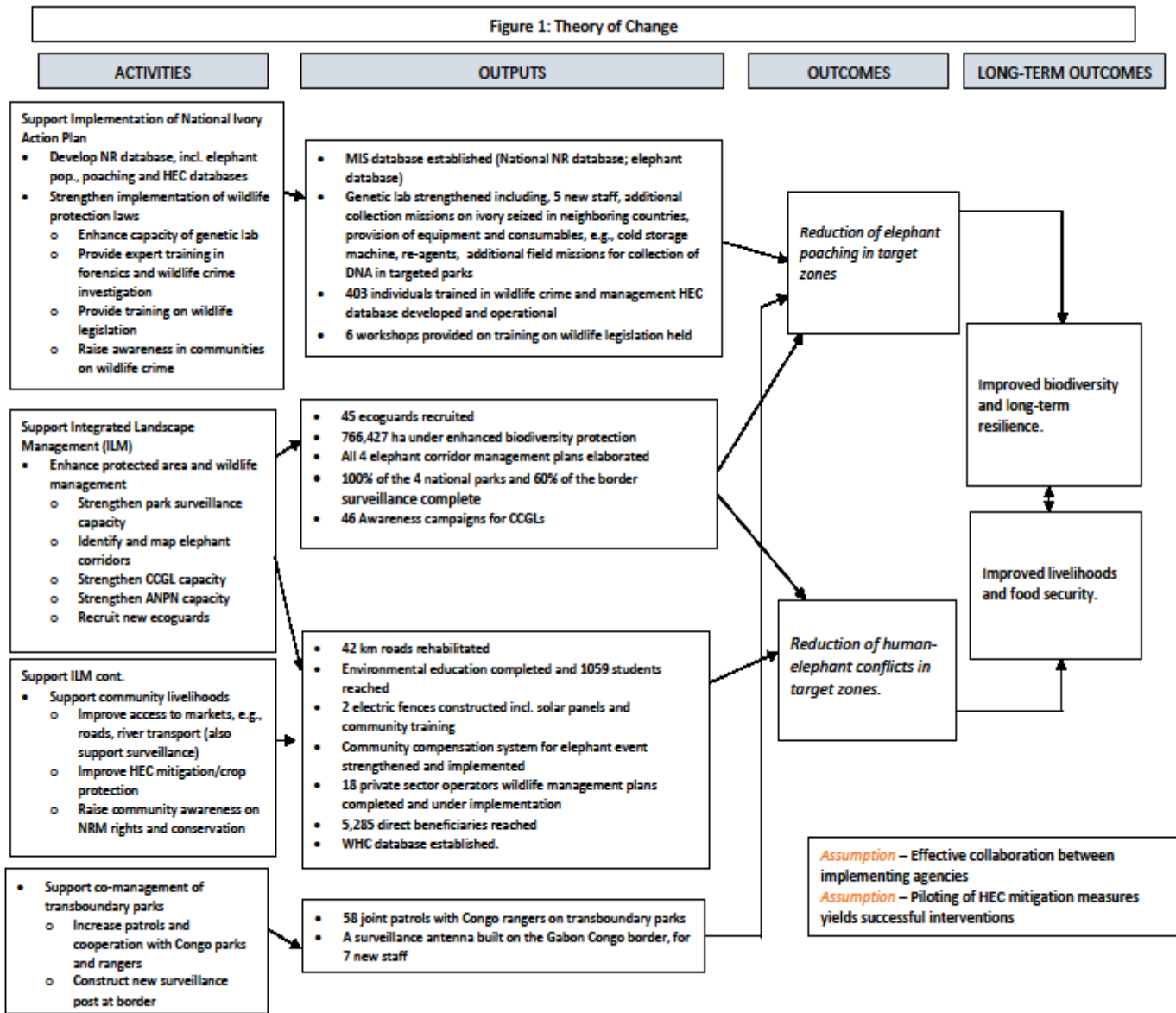
Project Development Objectives (PDOs)

The project's PDO is to reduce elephant poaching and human-elephant conflicts in the target zones.

15. The achievement of the PDO was to be achieved through: (i) strengthened anti-poaching activities, thereby securing elephants in their habitat, and limiting crop destruction; and (ii) strengthened HEC prevention and mitigation measures, thereby securing communities' crops and livelihoods against elephant raiding.

Key Expected Outcomes and Outcome Indicators

16. The project PDO can be broken down into two expected outcomes: (i) a reduction of elephant poaching; and (ii) a reduction of human-elephant conflicts – both within the project's target zones. The Project Results Framework includes five (5) PDO indicators and nine (9) intermediate outcome indicators used to measure progress towards achievements of the project's objective. The PDO level indicators are:

i. **Proportion of illegally killed elephants (PIKE) in selected National Parks** (disaggregated by park): PIKE is defined as the number of *illegally killed* elephants found, *divided by the total number of elephant carcasses* encountered by SMART patrols or other means.

ii. **HEC incidents recorded in targeted areas**: Reported HEC incidents mainly include destruction of crops (plantations) and damage to human physical integrity, including deaths. Reported incidents also include formal complaints and reports from Conservatives/Provincial Directors.

iii. **Stages of development of elephant corridor management plans by corridor:** Corridor management plans are comprehensive land use plans defined in the Forest Code. They go beyond traditional land-use plans, as they will determine areas where, for example, infrastructure activities in a legal sense are prohibited and will also lead to the demarcation of corridors.

iv. **Satisfaction by beneficiaries targeted of project interventions** (percent of which female): Satisfaction with project interventions refers to the perception of the effectiveness of the interventions and responsiveness to the needs of the project beneficiaries.

v. **Direct project beneficiaries** (percent of which female): Direct beneficiaries of the project are individuals or groups who directly benefit from project activities and their results.

Components

17. The project is designed around four main components summarized below and designed to contribute to the overall objective of reducing elephant poaching and human-elephant conflicts in the target zones. Please see Annex 6a for a complete description of the project.

Component 1: Support to the National Ivory Action Plan implementation (GEF: US$1.14 million; Actual: US$1.14 million)

18. Component 1 focused on developing the national tools and measures for elephant management through the implementation of the National Ivory Action Plan (NIAP). The NIAP entails (i) increasing knowledge on elephant populations, their movement and HEC; (ii) strengthening enforcement of wildlife protection laws; and (iii) communication and public awareness about elephant poaching/ivory trafficking and its negative impacts. The improved HEC knowledge aimed at helping the Government and communities to identify the most effective means to reduce HEC. Strengthened law enforcement aimed at contributing to poaching reduction thereby reducing elephant migration into areas that may contain human settlements. Finally, the communication and public awareness campaigns helped communities to understand the long-term negative implications of elephant poaching.

Component 2: Support for integrated landscape management and mitigation of human-elephant conflicts (HEC) (GEF: US$5.88 million; Actual: US$5.88 million)

19. Component 2 was designed to enhance surveillance inside the target zones through the implementation of the ANPN-designed parks management plans, involving all stakeholders. The design called for ANPN/DGFAP to increase surveillance and develop management plans for elephant corridors to reduce poaching. In addition, corridor management planning would provide an essential element to reducing HEC through land use planning that ensures human settlements are outside of the identified corridors. The component also focused on strengthening local bodies' (Local Management Consultative Committee (*Comité Consultatif de Gestion Locale-CCGLs*) capacity to co-manage local resources and provide communities with opportunities for enhanced livelihood. New HEC mitigation techniques were also tested and evaluated to ensure workable and sustainable options were made available to communities. Women would benefit from HEC protection due to expected increases in farm yields, along with small infrastructure improvements that would alleviate daily tasks and improve access to local markets.

Component 3: Transboundary parks co-management (Mayumba-Conkouati) (Gabon-Congo) (GEF US$1.20 million; Actual: US$1.20 million).

20. Component 3 focused on enhancing the co-management of the transboundary areas of the Mayumba National Park (Gabon) and Conkouati National Park (Congo) for better surveillance of elephant movements across the Gabon and Congo border. Activities under this component looked to enhance Gabonese patrols and rehabilitate surveillance outposts on the Gabon side of the border; and facilitate information exchange and mixed patrols across the border.

Component 4: Project coordination, monitoring and evaluation (GEF US$0.84million: Actual: US$0.83 million[7])

21. Component 4 focused on providing overall project management, as well as coordination with other donor projects that included similar activities in different areas of the country. Specifically, the four national parks targeted by the project, namely: Moukalaba Doudou, Loango, Mayumba and Waka, are in the southwest quadrant of the country. The project was designed to complement a similar project financed by the French Development Agency (*Agence Française de Développement*, AFD), which focused on the national parks in the northeast of the country. In addition, the project was designed to complement projects financed by USFWS and WWF, which both had on-going anti-poaching activities in the project's target zones.

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)

Revised PDOs and Outcome Targets

N/A

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[7] Difference reflects expected payment for external audit at project closure. Financial accounts for the project will close on May 31, 2023.

Revised PDO Indicators

N/A

Revised Components

N/A

Other Changes

The project closing date was extended from December 31, 2021, to January 31, 2023.

Rationale for Changes and Their Implication on the Original Theory of Change

22. The project closing date was extended from December 31, 2021 to January 31, 2023 because of implementation delays beyond the control of the project: (i) the Covid-19 pandemic which caused project activities to be halted during the early period of the pandemic and also modified as the pandemic restrictions continued past the initial shut-down period; and (ii) the Government of Gabon's lapse in loan repayments which led to the suspension of disbursements from the World Bank to the project from mid-March to mid-July 2021 and again from December 2021 to March 2022. The government formally requested the extension on June 10, 2021, about six months prior to project closure. There was no negative impact on the de facto Theory of Change as the extension merely allowed for the completion of important activities which were key to achieving the objectives of the project, including: (i) finalizing the construction of the surveillance antenna in Doussala at the Gabon/Congo border; (ii) Organizing the Mayumba-Conkouati cross-border park (PTMC) workshop in Pointe Noire: and (iii) undertaking surveillance and anti-poaching (*Lutte Anti-Braconnage* - LAB) missions in the four parks targeted by the project and on the border.

II. OUTCOME

A. RELEVANCE OF PDOs

Assessment of Relevance of PDOs and Rating

23. **The rating for Relevance is High.** The new Country Partnership Framework (CPF) which covers the period from FY23-FY27, continues to focus on economic diversification to support the country in moving from its current focus on the oil sector to build economic resilience and provide more opportunities for employment, especially for its young and growing population. The new CPF prioritizes increasing private investment in non-oil sectors and recognizes the importance of developing a blue and green economy to help reduce climate risks, halt the loss of natural capital and the country's rich biodiversity. The promotion of blue and green jobs in key sectors such as fisheries, forestry and ecotourism are expected to support long-term reduction in poverty and increased employment. The PDO's focus on reducing the poaching of elephants directly links to the need to protect the country's biodiversity and natural capital, particularly for the possibility of building an eco-tourism sector. As stated in the new CPF, Gabon's "national parks are generating a fraction of their potential economic impact compared to other peer countries (e.g., Rwanda, Costa Rica)" despite being home to "around 60 percent of all of Africa's Forest Elephant population" and a strong commitment to biodiversity conservation.[8] The PDO continues to support the goals of safeguarding the Forest Elephant population in support of biodiversity and improvement of the capacity to manage select national parks and their eco-tourism potential.

24. In addition, the new CPF is focused on helping the country to continue its recovery from the Covid-19 pandemic and to address poverty in the country, still high despite its middle-income status. Through its focus on reducing the incidence of HEC and thus improving livelihoods, the PDO also supports the on-going work to improve economic development and overall goals of reduced poverty and shared prosperity. A range of recent issues have put additional pressure on food security in the country, and the project PDO's focus on safeguarding farms and crops through reduction of HEC directly contributes to improved access to food both directly within farming communities and in the larger markets. Given these direct linkages with continuing country priorities, the PDO relevance is rated as High.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Assessment of Achievement of Each Objective/Outcome

25. The GeFaCHE project was highly effective in achieving the PDO with impressive reductions in both the incidence of poaching and of HEC in the areas in which the project intervened. The increase in the knowledge base on elephant corridors, the enhanced capacity at the genetics lab and the ability to track this data through an integrated management information system increased the state of knowledge in such a way that serves not only the country but the region. The project had an enormous positive impact on both biodiversity and community livelihoods. When the village head of a community near Moukalaba-Doudou park that had installed an elephant fence with the support of the project was asked during a field visit in June 2022 if the project had made a difference in the life of the community,

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[8] World Bank. (2022) "Country Partnership Framework for the Gabonese Republic for the Period FY23-FY27," p. 10.

he said, "Yes, it's made a difference – "Before, the elephants destroyed everything and we had no food to eat; now we have food. Now we can eat."[9]

26.   While the project activities were highly successful, the excellent achievement of the project can also be attributed to the groundwork laid by earlier actions and projects, such as the establishment of the national parks network, the strengthening of ANPN through the PARCs project and the overarching strategic vision of the Global Wildlife Program (see Box 1). The project was able to build on this foundation with an integrated approach which involved a range of stakeholders, both public and private, and focused not just on one piece of the puzzle (e.g., poaching), but on the bigger picture of community livelihoods, private sector concessions outside of parks and the need for connectivity between the national parks. Patrols were strengthened and trained, surveillance posts improved and constructed, and roads and other infrastructure were improved to enhance anti-poaching efforts. But no matter how effectively managed, a patchwork of parks cannot protect and conserve a species such as the forest elephant which needs to move and forage over long distances. Therefore, instead of a piecemeal approach, the project supported the government in evolving its integrated vision for management of the elephants and the conflicts resulting from their interactions with humans and their communities.

27.   This meant that DGFAP, the agency responsible for management of areas outside of national parks had to be a true partner with ANPN in implementation of activities. It also meant that private sector concessions which elephants often passed through had to become real partners with development and implementation of wildlife management plans to support elephant conservation. And finally, it meant that communities needed to be involved as partners through inter alia strengthening of their capacity to support conservation management through their Local Management Consultative Committees (*Comité Consultatif de Gestion Locale*, CCGLs) and as owners of the measures put in place to mitigate damage to their crops. Communities also needed to understand that their livelihoods would be protected even when elephants did destroy crops, thus the project supported and provided awareness raising on HEC compensation programs and supported community livelihoods via inter alia improvement of roads, installing a new barge for river crossings and improving access to clean water.   Finally, recognizing that elephants do not stop at country borders, the project strove to create partnerships with conservation agencies to facilitate cross-border surveillance. All these actions working together helped to achieve the high rate of achievement of indicators and level of efficacy outlined further below.

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[9] Author interview. June 2022. World Bank field mission.

Box 1: Gabon and the Global Wildlife Program

The Wildlife and Human-Elephant Conflicts Management in the South of Gabon (GeFache) is one of the projects supported under the GEF Global Wildlife Program (GWP), established in 2015, as one of the largest global partnerships focused on combatting wildlife poaching, trafficking, and demand. The GWP recognizes the real value of biodiversity and wildlife in creating healthy ecosystems and providing opportunities for development through sustainable toursim. Wildlife crime has been shown to severely undermine conservation efforts and the possibility for economic development in communities that live around protected areas. The estimated economic losses due to illegal logging, fishing, and wildlife trade are $1 trillion–$2 trillion per year—with more than 90 percent of these losses from ecosystem services that are not currently priced by the market (World Bank 2019).

GWP supports projects in over 30 countries which work on multiple interventions such as establishing protected areas and community conservancies, improving management and sustainable financing for protected and conserved areas, building institutional capacity to conserve wildlife, and developing integrated landscape management plans to reduce threats and improve connectivity between wildlife habitats. This integrated approach championed by GWP is echoed in the GeFache project design, particularly with regard to focus on the role of communities and the importance of landscape management and connectivity between wildlife habitats. The efforts and impacts of the GeFache project will hopefully enhance the ability of Gabon to establish diversified, resilient, wildlife-based livelihoods though the sustainable use of biodiversity, including nature-based tourism and for promoting a sustainable wildlife-based economy overall – a major focus of the GWP and the government's *Gabon Vert* program.

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28. The project had two expected outcomes: (i) a reduction of elephant poaching; and (ii) a reduction of human-elephant conflicts – both within the project's target zones and was highly effective in achieving its objectives. Although the two outcomes are interlinked, the assessment below deals with each outcome and its related outcome indicators separately for purposes of clarity. Activities from Components 1, 2, and 3 supported the achievement of both outcomes, supported in turn by the work under Component 4 to ensure good coordination among those implementing activities (i.e., ANPN and DGFAP) and the monitoring and evaluation of implementation.

29. **Outcome 1: Reduction of elephant poaching in target zones**.

30. The project was highly successful in achieving the overall outcome of reducing elephant poaching in the target zones particularly highlighted by increases in management and the excellent proportion of illegally killed elephants (PIKE) which were brought to zero by the end of the project.

Related PDO level indicators for Outcome 1:

PDO 1: Proportion of illegally killed elephants (PIKE) in targeted national parks (disaggregated by national park) – Fully Achieved;

	2015	At Completion	
	Baseline	Target	Actual (2022)
Moukalaba-Doudou	10	3	0
Loango	0	1	0
Mayumba	0	2	0
Waka	100	2	0
Total	15	10	0

31. As indicated above, PIKE refers to the number of illegally killed (i.e., poached) elephants out of the total number of carcasses found in the targeted national parks. This PDO indicator was met in 2021, the year prior to project completion with only 8 illegally killed elephants. However, in 2022 in the final year of project implementation, the impressive final number of zero illegally killed elephants was achieved. This is an impressive achievement, particularly when you consider the high number of poached elephants at the beginning of the project in places like Waka National Park and a testament to the excellent work of the project on defining and monitoring elephant corridors, increasing the number of rangers and improving the number and efficiency of surveillance posts.

PDO 3: Stage of development of corridor management plans by corridor – **Fully Achieved;**

ODP 3: Stage of development of corridor management plans by corridor			
	2015	At Completion	
	Baseline	Target	Actual (2022)
Loango-Moukalaba	0	5	5
Moukalaba-Mayumba	0	5	5
Mayumba-Conkouati	0	5	5
Total	0	15	15

32. PDO indicators 1 and 3 have been mapped to the achievement of Outcome 1, although PDO indicator 3, as explained below, also impacts the ability to achieve the projects second outcome of reduced incidents of human-elephant conflict. Under Component 1, the project successfully undertook activities to support the implementation of the National Ivory Action Plan which allowed for building a management information system (MIS) that could track a range of data on natural resources in general and data related to elephants in particular, including numbers, population density, genetics, etc. and on criminality, including data on poachers, middlemen, ivory seizures, etc. In addition, the project built capacity in the country's existing genetic laboratory, housed at ANPN, to better track DNA - an important tool in identifying poaching hot spots. Additional activities under Component 1 which supported the successful achievement of PDO indicators 1 and 3 also included strengthening law enforcement in the targeted parks through skills training in DNA collection and other forensic tools and in building and executing a communications and awareness plan on anti-poaching and ivory tracking. Over 400 individuals and officials in different fields, including,

rangers (ecoguards); conservationists, judges/magistrates, police, and customs officers were trained in specific steps to reducing wildlife crime. (See Results Framework (RF) Intermediate Results Indicator (IRI) 1.1).

33. In addition to the actions undertaken under Component 1, Component 2 and 3 activities also contributed to the success of Outcome 1. These activities focused on increasing the capacity, within both ANPN and local community organizations for wildlife management and surveillance. Of note, was the project's ability to increase the percentage of surface area covered by anti-poaching patrols from a little over half of the targeted parks (52 percent on average) at project start to 100 percent coverage at completion. (See RF, IRI 2.1). While the project was not able to increase the overall number of days on patrol as intended at the project design stage (See IRI 2.3)[10], the overall efficiency of patrols increased with the provision of new equipment and infrastructure (e.g., surveillance posts, motorized launches for surveillance) and enabled achievement of 100 percent coverage, as indicated above.

34. Success of project implementation activities under Component 2 and 3, including improved mapping of elephant corridors and joint patrols along the boundary with Congo, are indicated by the achievement of the IRI indicators on Protected Area Management Effectiveness Tracking Tool (PAMETT) scores for the targeted parks which assess their overall management, including inter alia staffing, budgets, legal status, threats, and incursions, planning and conservation. The project exceeded the targets for all 4 parks with an overall score of 79 (Target: 74). Other IRI results (See below) indicate the success of activities and outputs that contributed to the achievement of Outcome 1 and reflect on-going efforts on the part of the PIU and the implementing agencies of ANPN and DGFAP to follow through on activities despite challenges, such as the Covid-19 pandemic, civil unrest on the Congo side of the border, and lack of consistent co-financing from Congo. Despite the challenges presented by working on the transboundary issues, the joint mission targets were achieved every year during project implementation which bodes well for sustainability of the operations. In addition, a key component of successful corridor management was the involvement of private sector operators of concessions which elephants cross through along corridors between parks.   18 private sector operators (concessions) wildlife management plans were completed and are now under implementation exceeding the project's target and highlighting an important element for success of the integrated landscape approach and for connectivity among parks.

Additional Intermediate Results Indicators related achievement of Outcome 1 – **Fully Achieved**;

RI 2.5 Operators in Park having wildlife mgt plan under implementation			
	2015	**At Completion (2022)**	
	Baseline	*Target*	Actual
Number	0	*15*	**18**
RI 2.6 Area brought under strengthened biodiversity protection			
	2015	**At Completion (2022)**	
	Baseline	*Target*	Actual
Number of ha	0	*701,000*	**766,427**

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[10] The challenges with achieving the patrol day target was exacerbated by the covid-19 pandemic and the double suspension of disbursements of the Gabon portfolio in 2021 (see below under 'Key Factors During Implementation') which resulted in the cessation of patrol activities for 4 months..

RI 3.1 Border area covered by Patrols (ANPN, DGFAP)			
	2015	**At Completion (2022)**	
	Baseline	*Target*	Actual
% patrolled	0	*50*	**60**
RI 3.2 Joint Patrols in National Parks (Mayumba – Gabon; Conkouati – Congo)			
	2015	**At Completion (2022)**	
	Baseline	*Cumulative Target*	Actual
Number of Patrols	0	*50*	**58**

Outcome 2: Reduction of HEC in targeted zones.

Related PDO level indicators:

PDO 2: Reported incidents of human-elephant conflicts in the target zones – **Exceeded**;

PDO 2: Reported incidents of human-elephant conflicts in the target zones			
	2015	At Completion	
	Baseline	*Target*	Actual (2022)
Total	247	107	47

PDO 4: Satisfaction by target beneficiaries of project interventions (percent of which female) – **Partially Achieved**

PDO 4: Satisfaction of target beneficiaries of project interventions (percent of which female)			
	2015	At Completion	
	Baseline	Target	Actual (2022)
% satisfied	0	70	70.5
% of which female	-	80	45.3

35. The project exceeded its target of 70 percent satisfaction among beneficiaries with, for example, 73 and 77 percent of respondents in Moukalaba-Doudou and Mayumba respectively citing the installation of electric fences as a positive achievement of the project and over 90 percent of respondents from Waka noting the positive impact of the barge.[11] Unfortunately, the project missed its target on achieving an 80 percent satisfaction rate among women.

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[11] Hounsou, T. D. and Accrombesy, F. "Enquete de Satisfaction des Bénéficiaires du Projet GeFache: Rapport d'Analyse IBM." (January 2023).

This was partially due to setting an ambitious target for women at the design stage.[12] The survey for beneficiaries conducted at the time of project completion did not reflect why 45 percent of women vs. 80 percent of men were satisfied with the project. It may be that two activities that could not be completed particularly adversely affected women, i.e., the 150 km road rehabilitation in Waka Park - not undertaken because the financing from the Ministries of Public Works and Waters and Forests never materialized; two hydraulic pumps aimed at supporting the local population - not installed because the drill could not be transported to the remote area due to the poor condition of the road. The road would have provided women with greater access to markets and the pumps would have particularly supported women who are generally responsible for water collection. This impact also reflects the importance of recognizing when a project activity may be too heavily linked to government's ability to finance and undertake a particular action as the government's inability to build a bridge near the Waka Park made it impossible for the project to complete the planned road rehabilitation there.

PDO 5: Direct project beneficiaries, (percent of which female) – **Number of Beneficiaries – Achieved; percentage of women underachieved**.

PDO 5: Direct project beneficiaries (percent of which female)			
	2015	At Completion	
	Baseline	Target	Actual (2022)
Number of beneficiaries	0	4150	5,285
% of which female	-	60	47.4

36. The project reached 5,285 direct beneficiaries, about 27 percent higher than the expected target. While this was a positive outcome overall, it did result in a lower-than-expected percentage of women reached. While the number of women reached, 2,505 was in line with the number expected at the start of the project, 2,490, due to the larger than expected number of beneficiaries, the percentage for women was about 13% less than the hoped for target.

37. PDO indicators 2, 4 and 5 have been mapped to Outcome 2 as they are the most directly linked to the specific number of HEC events and to the communities and individuals who have had to deal with the impact of elephants on their crops and livelihoods. The most direct indicator of the achievement of Outcome 2, the reduction of human-elephant conflicts in the target zones, is PDO 2 which exceeded its target by bringing down the number of reported incidents of HEC from the expected 107 reported incidents to less than half the target to 47.

38. Activities that help to safeguard elephants from poaching and understand and manage their main corridors of movement all help to reduce the number of HECs as elephants that aren't under threat are less likely to move into areas with human settlements. In addition, managing corridors effectively and increasing surveillance and making it more effective and efficient all contribute to increasing elephant safety and therefore help produce a reduction in HEC. However, as the project was also designed to directly mitigate HECs and to support communities impacted by them the above listed PDO indicators and selected activities under Component 2 are linked directly to the success of

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[12] World Bank. "Aide Memoire: Gabonese Republic - Mission to support the implementation of the Wildlife and Human-Elephant Conflict Management (GEF: TFA3107)," June 2022.

Outcome 2. In addition, to the actions already discussed under Outcome 1, several activities under Component 2 helped to achieve a positive outcome on HECs and for communities. The strengthening of the capacity of local management consultative committees (CCGLs) was undertaken by ANPN and DGFAP to not only strengthen the ability of the CCGLs to manage local resources, but also to raise awareness on both conservation and the rights and obligations of local communities regarding natural resource management.   ANPN and DGFAP found that they were able to undertake significantly more awareness campaigns than originally expected for CCGLs and cover more communities within the targeted parks (See IRI 2.4 – Target: 8; Actual: 46).

39. Activities undertaken for communities also included targeted support on: (i) the purchase of a river barge to help to minimize the 'landlocked' situation during the dry season of certain communities which depend on river travel, and which can exacerbate human-wildlife conflict; (ii) rehabilitation of roads to improve park patrols and communities' access to larger markets; and (iii) improved access to safe, potable water. Many of these activities were focused on supporting women's access to important livelihood inputs, e.g., greater access to markets and to ease access to healthcare and reduce the burden of collecting water. Finally, the project was able to work with communities to test a range of tools to mitigate HECs with the final selection of a 'Kenya-style' electric fence.

40. These types of activities led to significant enhancements to community quality of life, improved livelihoods, and access to basic needs. For example, the barge provided by the project in Sindara (Waka Park), in addition to supporting the efficacy of patrols, allows community members to cross the river and access markets, medical services and allows the children to attend schools without costly transport fees. In addition, the barge has reduced isolation by allowing for the transport of crops, equipment, and vehicles across the river. The provision and maintenance of electric fences, for example in the community near Moukalaba-Doudou National Park has had a significant positive impact on livelihoods and food security. When asked whether the electric fence around the community's field made a difference, the community leader gave a very fundamental response, "Before, the elephants destroyed everything, and we had no food to eat; now we have food. Now we can eat." Overall, the PIU has indicated that additional agricultural income to households due to reduced or zero elephants' intrusion is about 80,000 FCFA per month (or about US$134) close to a 40 percent increase in monthly income in these areas. (See Efficiency section for further analysis.) Finally, in Doussala, the construction of the surveillance post provided direct employment for local community members while the water boreholes drilled at the site provided the nearby community with potable water.

> *"Without this barge I would have had to abandon going to school."*
> -   Dieu Merci Mavandzi, Student (Waka National Park community area)
>
> See video, "Les Réalisations du Projet GeFache"
> (*https://www.youtube.com/watch?v=AKCrQMAmfzc*)

Justification of Overall Efficacy Rating

41. The project achieved or surpassed all but one PDO indicator and one Intermediate Results Indicator and excellent results for both enhanced protection of elephants and for communities has been shown through the achievement of the targeted outputs and outcomes. But perhaps more importantly, with its approach of building on achievements of past projects and moving forward critical elements, such as finalizing corridors, improving surveillance, and creating real partnerships between key government agencies and with private sector operators and communities, the project has shown that a multi-pronged, integrated landscape management approach is an effective, 'do-able' approach for

dealing with complex conservation issues. The project's achievements, particularly regarding its genetics laboratory and the community participation and ownership of fencing can serve as models for other projects, while its overall achievements place Gabon in a strong position for further growth of nature-based tourism. Given this level of achievement, the Overall Efficacy is rated Substantial.

C. EFFICIENCY

Assessment of Efficiency and Rating

42. An economic analysis was not conducted at the design stage. With GEF methodology, in lieu of standard economic rate of return analysis, an Incremental Cost Analysis13 was undertaken at the appraisal to estimate the project's efficiency. Since the baseline scenario (without the project) was not conducted, the economic analysis of the project at closing has attempted to measure the efficiency of selected interventions, provides updates on the GEF incremental cost analysis, and briefly discusses implementation efficiency. (Please see Annex 4 for the full analysis.)

43. **GEF Project Incremental Analysis.** Through its development objectives and design, the project supported Objective 2 of the GEF 6 Biodiversity Strategy: to reduce threats to globally significant biodiversity and continues to be relevant to Objective 1 of the current GEF 8 Biodiversity Strategy - To improve conservation, sustainable use, and restoration of natural ecosystems.

44. One key value added of this project stems from its synergy with the €10 million AFD project "*Eléphant Gabon."* A significant result of this cooperation includes establishment of a wildlife genetic analysis laboratory financed by AFD and the project, set up by the National Agency for the Preservation of Nature. The use of wildlife DNA is highly valuable in the tracking of those involved in illegal hunting and is a powerful tool in the range of techniques that can be applied in an investigation on a wildlife crime.[14] This is the first Wildlife Genetic Analysis Center in Central Africa. Inaugurated on March 11, 2021, this new laboratory is based at the National Agency for the Preservation of Nature, which implements the GoG's policy on the protection, management, and development of national biodiversity.
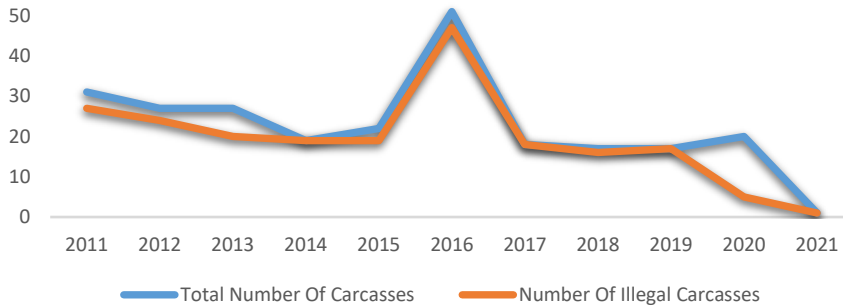
45. Gabon is one of the key participants of the GEF Global Wildlife Program (GWP). The activities of this project are consistent with those indicated for the GWP and link to certain indicators in the GWP results framework, including support to national anti-poaching strategies through the implementation of the Gabon National Ivory Action Plan (Component 1). Project success is also supported by external data. According to the reports by the CITES Monitoring Illegal Killing of Elephants (MIKE) Program,[15] both number of elephant carcasses as well as number of illegally killed elephants reduced during project implementation, from 51 and 47 in 2016 respectfully to 20 and 5 in 2020 (2021 data might be affected by the lack of reporting during COVID-19 period) (Figure 2).

Figure 2. CITES, Monitoring the Illegal Killing of Elephants, Gabon 2011-2021

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[13] Incremental Cost Analysis is the additional costs associated with transforming a project with national or local benefits into one with global environmental benefits.
[14] https://www.afd.fr/en/actualites/gabon-using-dna-hunt-poachers?origin=/en/rechercher?query=Gabon&size=20&sort=_score%2Cdesc&filter[0]=source_k=afd&filter[1]=thematic_k=Biodiversity&facetOptions[0]=country_k,size,200&facetOptions[1]=thematic_k,size,999&facetOptions[2]=publication_date_month,size,999&type=
[15] https://cites.org/eng/prog/mike/index.php/portal

Source: CITES Monitoring the Illegal Killing of Elephants Program, 2022

46. With the 2020 poacher prices for raw tusks between US$79-98 per kg[16,] it is expected that the project resulted in benefits in terms of prevented killing between US$36,972-86,632[17], with at least US$308,880-583,440 of avoided trades (or benefits) if market price in China is considered.

47. As a result of the project implementation area of 738,387 hectares is brought under enhanced biodiversity protection, with the significant progress on Management Effectiveness Tracking Tool for Protected Areas (METT) score (Figure 3) in targeted national parks.

Figure 3: PAMETT score progress in targeted National Parks
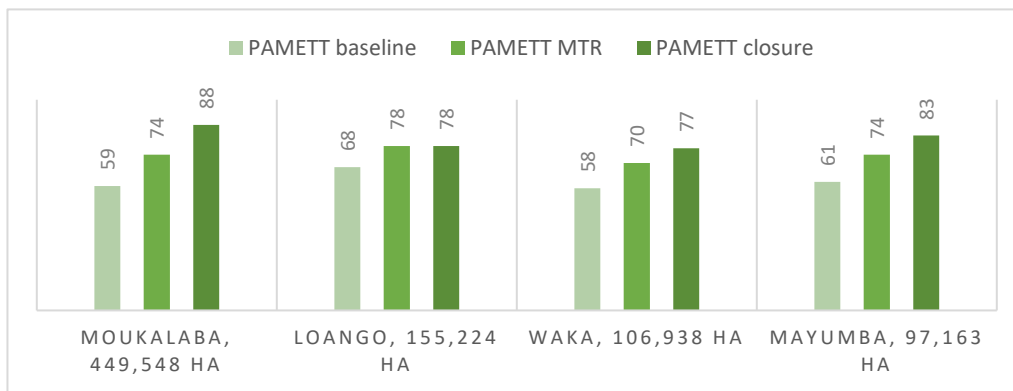
48. **Human-Elephant Conflict.** As reported by the PIU, additional agricultural income to the household due to reduced or zero elephants' intrusion is about 80,000 FCFA per month.[18] Over the last two decades, per capita income in Gabon has declined as population growth has outpaced aggregate income growth, leading to a 20% decrease in real GDP per capita since 1990. Poverty remains a significant issue, with one-third of the population living below the

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[16] *https://www.savetheelephants.org/about-elephants-2-3-2/elephant-news-post/?detail=worrying-signs-for-elephant-conservation-data-shows-2020-rise-in-black-market-ivory-prices*

[17] Average weight of a mature elephant tusk typically ranges from 80 to over 150 pounds (80 pounds = 36kg; 150 pounds = 68kg) (*https://worldelephantday.org/how-to-help-elephants/elephant-facts/2#:~:text=An%20African%20bull's%20tusks%20can,%3B%20150%20pounds%20%3D%2068kg*).

[18] Women in rural areas, after having ensured the food of her household with the products from her plantations, can collect about 80,000 FCFA per month from the sale of crops.

$5.5/day poverty line and 14% unemployed.[19] According to the Anker Living Wage Reference Value for rural Gabon in 2021, the monthly income should be FCFA 200,770 (equivalent to USD 369.00) with a 95% confidence interval ranging from FCFA 185,077 to FCFA 217,738.[20] Thus, a monthly income increase of FCFA 80,000 (approximately US$134) is a considerable amount for the rural population.

49. The effectiveness of the interventions to reduce human-elephant conflict is considered significant and supported by the indicator "Reported incidents of human-elephant conflicts in the target zones;" it is recorded that the number of incidents reduced from 247 as reported at the baseline to 79 at the time of project closure. With the available data it is possible to estimate NPV for this subcomponent: cost of the local interventions on prevention of the HEC is US$1.0 million, and considering inputs discussed above, the NPV for these interventions is estimated at US$ 0.76 million with a discount rate of 6 percent.

50. **Cost effectiveness.** The project area under enhanced biodiversity protection at the time of project closure was 738,387 ha, with a cost-effectiveness of about $12 per ha, which is compatible with the other similar GEF projects (e.g., $10 per hectare in Amazon Region Protected Areas Program;[21] similarly, In GEF-5, the programming to improve effective management of protected areas considered around $16 per ha ($4.1 per ha per four years[22]) as an appropriate rate of cost-effectiveness. According to the GEF Independent Evaluation Office report, "Evaluation of GEF Support to Sustainable Forest Management,"[23] average cost per ha in medium size grant protected area projects was slightly above $11 per ha).

51. **Other contributions**. Several project interventions may also result in strong environmental and socio-economic benefits. While difficult to quantify the following results show promise for long-term benefits to local communities and individuals:
   * Development of the corridor management plans. These are comprehensive land use plans defined in the Forest Code (currently under preparation). They go beyond traditional land use plans, as they will determine areas where for example infrastructure activities in a legal sense are prohibited and will also lead to demarcation of the corridors. Consultations will include all stakeholders including a validation of the final management plans by all of them.
   * The recruitment of 45 project eco-guards, including 14 women; four of the eco-guards included representatives of the indigenous Pygmies-Babongo people.
   * Increasing capacity of the transport to cross the Ngounié River at Sindara by launching the barge at Sindara-Song, operated by locally hired technicians.
   * Involvement of the local youth in the construction of the surveillance antennas.

52. **Implementation efficiency.** The project's closing date was extended once at no additional costs, in October 2021, by 13 months to address implementation delays and ensure achievement of the PDO. The implementation of the project was affected by two factors (i) the COVID-19 pandemic, and (ii) the Government's lapsed loans which led to the suspension of disbursements by the Bank twice from mid-March to mid-July 2021, and again from December

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[19] The World Bank. (2022) "Country Economic Memorandum: Gabon - Toward More Inclusive and Greener Growth."

[20] Anker Research Institute. (2021) "Anker Living Wage Reference Value for Rural & Urban Gabon."

[21] *https://www.thegef.org/news/protected-areas-and-more#:~:text=ARPA%2C%20however%2C%20demonstrated%20that%20protected,protected%20areas%20brings%20multiple%20benefits*.

[22] *https://www.sprep.org/attachments/VirLib/Regional/cbd-gef-6-replenishment-value-est-aichi-targets.pdf*

[23] 2022. Evaluation Of GEF Support To Sustainable Forest Management. GEF/E.C.62/02 May 25,2022 (*https://www.thegef.org/sites/default/files/documents/2022-05/EN_GEF_E_C62_02_SFM_May_25_Final.pdf*)

2021 to March 2022. There was no other extension or restructuring of the project. Project management costs remained within the same ratio as it was envisaged at the design stage.

53. Given the challenges of implementation during the COVID-19 pandemic and the analysis of the results and existing data, the level of Efficiency the project was able to achieve is high. Based on the positive outcomes regarding reduced poaching and HEC along with positive income benefits and overall cost-effectiveness and implementation efficiency, the project efficiency is rated Substantial.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

Rating: Satisfactory

54. The project showed a substantial result for both efficacy of project actions and their efficiency (and cost-effectiveness). The following conservation-related achievements from the project illustrate its effectiveness in achieving PDO 1: (i) significant reduction of poaching in the project zones; (ii) strengthening of surveillance patrols and infrastructure; (iii) genetic lab fully established and providing services both locally and regionally (see below under Other Impacts); (iv) knowledge base with regard to data on both DNA and movement corridors and the ability to track them in the long-term improved substantially; (v) private sector concessions wildlife management plans developed and under implementation; and (vi) improved management of the parks overall with enhanced biodiversity as indicated by the PAMETT.[24] In addition, the following community-focused results illustrate the project's effectiveness in achieving PDO 2: (i) significant drop in the number of reported HEC incidents; (ii) increased access to HEC compensation programs; and (iii) positive impact on food security, income and quality of life for a larger than expected number of beneficiaries. Finally, these results were all achieved at an appropriate level of efficiency and cost-effectiveness compared to other similar project. Together these achievements justify an overall outcome rating of Satisfactory.

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender

55. Fourteen women were recruited and trained as ecoguards as part of the overall efforts to strengthen the anti-poaching missions and overall surveillance capacity within the targeted parks. Of the ecoguards interviewed during the post-project satisfaction survey, female ecoguards expressed a high level of satisfaction (higher than their male counterparts) in general about their positions, reflecting satisfaction with positive changes in their livelihoods.

Institutional Strengthening

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[24] The Protected Area Management Effectiveness Tracking Tool or PAMETT is an open-source, widely-used system for assessing the health of protected areas, their ecosystems and biodiversity. A baseline set of data is established at the beginning of the project and assessed on a regular basis to determine effectiveness of interventions and any required adjustment of approaches. The newest update (2021) includes even more emphasis on conservation outcomes, climate change and ecosystem services.

56. In addition to the intended institutional strengthening that took place with regard to a range of agencies, including ANPN and DGFAP, the project's activities positively impacted institutional strengthening in several areas: (i) the project organized four specific training sessions for the benefit of CCGL members in the field of wildlife crime prevention resulting in an increase in capacity of CCGL's to identify and report wildlife crime; (ii) the data and elephant DNA analysis provided by the genetics lab has enhanced both wildlife management and supported court decisions which have resulted in increased convictions of poachers; and (iii) the genetics lab has enabled the formulation of partnerships with other countries in the region, such as Cameroon and Nigeria on the analysis of seized ivory. This both improves the long-term viability of the genetics lab through an increase in revenue as well as supporting anti-poaching activities and compliance with the CITES convention throughout the region.

Mobilizing Private Sector Financing

57. While the project did not specifically mobilize private sector financing, the involvement of private sector concessionaires in the creation of corridors and connectivity between parks and as partners in the CCGL and their participation in project activities was extremely important in creating an overall system of safe movement for the elephants.

Poverty Reduction and Shared Prosperity

58. While an improvement in livelihoods was an expected outcome of the project activities, the significant level of improvement on average contributed more significantly than expected to livelihoods for affected communities. As mentioned under the Efficiency section, reduction of elephant incursions to agricultural fields led to an increase in income of about 80,000 FCFA (US$134) per month in target areas. Given the significant level and increases in poverty in the country and the average monthly household income of about FCFA 200,770 (US$ 369.00) the project potentially had a significant positive impact on the reduction of poverty in the target zones.

> *"Before the fence, because of the elephants, we didn't plant. At first, there were problems [with maintaining the fences] we still had brush… But now we do what's needed [to maintain the fences] and now we plant."* –
> Maman Christine, Farmer
>
> See video, "Les Réalisations du Projet GeFache" (https://www.youtube.com/watch?v=AKCrQMAmfzc)

Other Unintended Outcomes and Impacts

59. While not a fully developed 'outcome,' the project's development of infrastructure allowing further access to Moukalaba-Doudou for improved surveillance has also improved accessibility for tourists to enter the park. This opens the possibility for small and larger-scale economic activities for tourism development for communities and potentially as part of a national eco-tourism strategy.

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

60. Project preparation was conducted from the last quarter of 2014 to early 2016 with participation of key stakeholders, including those from involved government agencies (e.g., ANPN and DGFAP) and local communities. Particular attention was paid to ensuring local participation to best understand issues regarding the implementation of environmental and social safeguards. Work with local communities included stakeholders who came from both Bantu and indigenous populations and where appropriate meetings were held with either a mixed community group or solely with indigenous populations to best understand the issues and challenges present for the various groups. The specific Indigenous Peoples Plan was developed and shared with local affected communities to get clear feedback and approval and to raise awareness within local operators and agents of key national parks. A validation workshop was held in early 2016 organized and implemented by the two implementing agencies.

61. The project set out clear objectives which were both achievable and trackable. The results framework for the project was slightly over-ambitious in a few areas, namely regarding Component 3 activities on co-management of transboundary parks, but in general indicators hit the right balance of ambitious and achievable. In addition, the tools for tracking progress, particularly regarding activities related to Outcome 1 on reduced poaching were well-established and well-known to ANPN and DGFAP, e.g., PIKE and PAMETT. The design of components and actions were clear and relatively simple with linkages made between knowledge gained, e.g., on developing the MIS and research on elephant corridors and existing land use patterns by park-adjacent communities and the finalizing of activities for interventions needed to protect both elephants and the livelihoods of local communities. The design allowed for pilot activities, for example in methods to deter elephants from destroying crops and moving through human settlements, to be tested in the early stages of the project, e.g., testing of various fence designs with successful interventions rolled out later in the project. This allowed for real world testing of approaches and better success rates and buy-in among stakeholders. The project identified most risks appropriately during the preparation phase and mitigation measures, particularly those related directly to HEC (e.g., soliciting farmer feedback on HEC mitigation approaches), proved highly effective in helping to make the best choice of technologies/approaches to reducing HEC and in helping to ensure ownership on the part of beneficiaries. Mitigation measures to reduce conflict between the two implementing agencies, DGFAP and ANPN, *inter alia* ensuring full involvement during preparation, assigning one agency as overall coordinator and ensuring field activities were completed jointly and in a complementary manner based on each agency's mandate, proved successful in ensuring strong cooperation throughout the project.

B. KEY FACTORS DURING IMPLEMENTATION

(a) Factors subject to the control government and/or implementing entities

- *Coordination and engagement.* Given that there were two implementing agencies, ANPN and DGFAP, the project could have experienced significant issues regarding efficient and effective implementation of activities. However, the PIU and the implementing agencies along with the project Steering Committee worked together to ensure clear collaboration on activities. In addition, ANPN and DGFAP shared information and coordinated field missions when necessary to allow for better surveillance in targeted areas.

- *Commitment and leadership.* While the government showed a strong commitment to the project and the Steering Committee (chaired by the Ministry of Economy) operated appropriately, there were numerous changes of key leadership positions in government and the implementing agencies which created additional work and caused delays in the execution of project activities. During the life of the project, changes included: 6 Ministers of Water and Forests; 2 Chairmen of the Steering Committees; 4 Directors General of Wildlife and Protected Areas; and 3 ANPN Executive Secretaries.

- *Legislation and regulations.* The legislative framework in place or being finalized at the time of project start-up was generally good and enabled ANPN and other to follow through with convictions on poachers captured by the increased patrols in the target areas. In addition, the project designed specific activities to support the country's on-going national plans and international or regional commitments, e.g., the National Ivory Action Plan and CITES.

- *Fiduciary.* The project had some early challenges with establishing all aspects of its financial system but was able to eventually put in place integrated project management software (encompassing financial management, procurement, and M&E). In addition, the PIU was able to recruit staff and contractors, e.g., auditors, to undertake the various necessary reports and get back on track after delays. A Senior FM specialist was based in the region (World Bank office in Yaoundé, Cameroon) and was able to carry out regular implementation support missions.

- *Environmental and social.* The project had difficulty validating environmental assessments in a timely manner due to a lack of staff and budget at the Directorate General for the Environment. However, despite these delays the team was able to identify issues early and create solutions, for example, involving the safeguards specialist in more field missions so any environmental and social issues could be identified and addressed quickly. The full PIU team was also trained in the Bank's new Environmental and Social Framework during the project implementation period so staff could better understand its implications to the project. Finally, the PIU was responsive to staff and beneficiary needs during the Covid-19 pandemic developing and implementing a Covid-19 contingency plan to ensure their safety.

- *Participatory approaches.* The project utilized a participatory approach for implementation of several activities which enhanced the success of outcomes. For example, the testing siting and installation of electric fences was undertaken in a participatory manner with the communities and ownership of the fences was transferred to the community. This appears to have created greater commitment to maintenance of the fences, the solar huts and to complying with rules of fence use[25].

- *Suspension of disbursement.* Due to the Government of Gabon's lapse in loan repayments the project experienced two suspensions of disbursements from the World Bank to the project – one from mid-March to mid-July 2021 and a second from December 2021 to March 2022. This impacted several activities, including

construction of the Doussala surveillance post (antenna) and other activities and payments in communities which negatively impacted beneficiary satisfaction.

(b) Factors subject to the control of the World Bank control

- *Adequacy of supervision.* Where possible, regional experts were employed to support the ease of supervision. In addition, there was only one main TTL during project preparation and implementation which facilitated a strong and trusting relationship with the PIU. The WB also ensured that training was provided throughout the project period – both early interventions on operations and on-going training on safeguards – to ensure the PIU was able to meet the changing operational and reporting needs.

- *Adequacy of reporting.* Reporting was regular and candid, identifying issues when they arose and working with any necessary WB staff to resolve them, from specialists to management.

(c) Factors outside the control of government and/or implementing entities

- *Health crisis.* The most significant event to impact implementation outside of the control of government was the Covid-19 pandemic which caused both supply chain issues (impacting the surveillance post at Doussala, for example) and restrictions on travel. Travel restrictions caused delays in implementing certain activities in the field, particularly workshops and trainings, such as the Mayumba-Conkouati Transboundary Park workshop in Pointe-Noire and training workshops on the prevention of wildlife crime. In addition, even after travel was permitted, restrictions on gathering continued which limited the ability to conduct face-to-face meetings, workshops, and training, causing delays in some important activities. Despite this, the project was able to adapt and continue to make progress and eventually complete the trainings. And, although somewhat delayed, the mid-term review was held virtually in June 2020 and made key recommendations for improving performance, including a recommendation to extend the project closing date to allow for the PIU to respond to issues and bring implementation performance back to a satisfactory level.

- *Collaboration with other governments.* Component three of the project, Transboundary management of Mayumba-Conkouati parks (Gabon-Congo) required both collaboration with and co-financing from the Congolese government which created challenges for implementation of activities due to internal conflicts along the border on the Congolese side of the border as well as a lack of cooperation from Gabonese Park officials and government. The PIU worked consistently throughout the project to try to improve cooperation and responsiveness with Congolese counterparts, including increasing operational and technical support in the transboundary area. While results were variable during the years of implementation, final targets were met for the Component's related indicators.

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

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[25] Interview with community members. WB Supervision mission, June 2022.

M&E Design

62. The monitoring and evaluation design was satisfactory. The project-level M&E system tracked agreed upon project results indicators and was seen as a part of the larger context of tracking and monitoring within the project as a whole which had significant activities focused on the tracking of data on elephant poaching, ivory seizures/DNA and HEC events. A monitoring and evaluation specialist was hired early on to ensure compliance with monitoring and reporting guidelines and facilitate the lessons learned throughout project implementation to enhance project outcomes.

M&E Implementation

63. The M&E system did not experience any significant issues during implementation and reports were regularly shared with the task team. An M&E specialist was hired and performed satisfactorily throughout the project. The ability to effectively monitor the project was enhanced by allowing for a somewhat larger budget for supervision given the long distances between sites and the longer than usual time required for field supervision. In addition, field missions involved key personnel, safeguards, financial, etc. in addition to the M&E specialists to ensure a range of issues could be identified in the field. Finally, data collection was enhanced by collaborating with ANPN and DGFAP as they collected the key data on PIKE, PAMETT, etc. in the field.

M&E Utilization

64. The M&E system was used for regular reporting on project progress and helped to identify difficulties with implementation on several occasions allowing the PIU and WB team to develop appropriate solutions. For example, delays caused by a suspension of disbursements (GoG loans issue, as above) and other supply chain issues caused substantial problems with the construction of the Doussala surveillance post (antenna). Through close monitoring, the project team was able to identify where bottlenecks were in the supply and deal with these and other issues, such as quality of transport to allow for the successful completion of the post prior to completion. Importantly, the databases and maps developed and maintained for the project on HEC events, elephant movement, elephants killed by poaching and the genetics data developed through the GeFaCHE-supported laboratory contributed to the effectiveness of surveillance activities, reduction in incidences of wildlife-based crime and contributed to the state of knowledge regionally regarding efforts to reduce wildlife crime throughout the region. In addition, the mapping exercises were highly useful in helping the communities as they worked together with the project to choose the sites for electric fences to protect crops.

Justification of Overall Rating of Quality of M&E

65. Ratings for M&E throughout the project were generally Satisfactory or Moderately Satisfactory. The system functioned well, and the team collaborated with on-the-ground implementing agencies to ensure close tracking of implementation as well as important field-level data. Beyond the day-to-day monitoring of the project activities, the M&E system also provides important information for future projects in this country and region through its work in corridor and wildlife mapping, strengthening of the natural resource database and enhancing genetics data. Given the impact of the data gather as well as the programs level of effectiveness, the project's M&E is rated Substantial.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

Environmental and Social

66. The overall performance on environmental and social safeguards is considered Satisfactory. The project was classified as a category B project under the World Bank's environmental and social safeguards policies as the anticipated impacts were small scale, site-specific, and could be mitigated. The project triggered four World Bank safeguards policies, namely: OP/BP 4.01 "Environmental assessment" and OP/BP 4.04 "Natural Habitats"; OP/BP 4.12 "Involuntary Resettlement" and OP/BP 4.10 "Indigenous People". The project prepared the Environment and Social Management Framework (ESMF) and disclosed it in-country on March 18, 2016, and at the Bank Infoshop website on March 21, 2016. Process Framework and Indigenous Peoples Action Plan were disclosed both in-country and at the Infoshop on March and March 21, 2016, respectively.

67. Infrastructure works (rehabilitation works linking Mourindi to Doussala for the access of the neighboring communities east of the Moukalaba-Doudou Park (40 km), construction of the Doussala surveillance antenna and construction of two hydraulic boreholes) required environmental and social impact assessments which were duly prepared. More specifically regarding the construction works of the Doussala surveillance antenna finalized and delivered in September 2022, safeguards policies were complied with as the work site remained clean, occupational safety measures and health and hygiene measures were rigorously respected. Waste from the construction site was well managed.

68. The motorized barge delivered to the Waka Park benefited populations for their movement and the sale of their products. The construction of the Doussala surveillance benefited young people from the surrounding villages who were employed on the site. a plan for vulnerable populations was prepared and all its activities were planned and budgeted for.

69. A Grievance Redress Mechanism was developed in a timely manner and remained functional throughout project implementation.

70. World Bank environmental and social safeguards specialists provided the PIU training on environmental and social safeguards as well as technicians from the ANPN and the General Directorate for the Environment and Nature Protection (DGEPN). Safeguard missions were conducted to support implementation during the lifetime of the project and mission findings were recorded in the Aide Memoires.

Fiduciary Compliance

71. **Financial Management:** Financial Management performance is rated satisfactory and the residual risk Moderate thanks to the sound financial management system put in place to ensure effective monitoring of activities and available resources until project closure. Despite the project facing some challenges due to the Government's lapsed loans which led to the suspension of disbursements by the Bank from mid-March to mid-July 2021, and in the beginning of 2022, the project ensured that the interim financial reports non-audits were prepared and submitted by the deadlines agreed in the financing agreements and were all deemed acceptable as well as the provisional audit reports which were submitted on time by the end of each fiscal year. A Senior FM specialist based in the World Bank office in Yaoundé, Cameroon carried out regular implementation support missions. By project closure, the project disbursed 100% of funds and finalized all the closing activities.

72. **Procurement:** The procurement performance was consistently rated Satisfactory, and the rating sustained at grant closure. Overall, the procurement process was rated Satisfactory, and no irregularities were observed. All procurements under the TF were under the post review category except the recruitment of the PIU personnel that was prior reviewed by the Bank. There was good project management, and all the planned activities were accomplished. Before the grant closure, contracts (goods, works, services) under the project were completed on time, and in payments to contractors. All documents were updated/uploaded in systematic tracking of exchanges in procurement (STEP).

C. BANK PERFORMANCE

Quality at Entry

73. The Bank preparation team identified key partners such as AFD, USFWS, the EU, and WWF Netherlands early on during project preparation and ensured collaboration and coordination with other the projects already underway in Gabon to ensure complementarity of the project's design. The team also ensured coordination with the GEF-funded Sustainable Management of Critical Wetland Ecosystems (P143914) which became effective about a year prior to GeFaCHE and had one overlapping target zone. An explicit and early task identified for the project coordinator was to ensure that related activities of the various projects were complementary, synergistic, and unduplicated. The design of the results framework and other key early design elements involved key stakeholders, ANPN, DGPAF, etc.

Quality of Supervision

74. The project struggled at times with implementation with progress towards the PDO and specific components at times receiving a rating of moderately unsatisfactory. For example, the work to achieve cross-border surveillance was hampered by efforts to engage the Congolese rangers and necessary co-financing for the joint patrols. However, the Bank supervision team worked closely with the PIU to establish consultations with Congolese authorities to improve performance. This is one of many examples where the Bank team provided guidance, training, or other needed inputs to supervision to resolve arising issues. The Bank team's continued support to the PIU allowed for the problems which arose, particularly those due to delays (most of which were beyond the control of the PIU), to be successfully resolved and for the project to end with a Satisfactory rating and excellent outcomes.

Justification of Overall Rating of Bank Performance

75. Given the project's successful achievements despite the pandemic, delays resulting from GoG non-payment of loans and other implementation-level challenges, and the Bank team's ability to provide effective support, the overall rating for Bank Performance is considered Satisfactory.

D. RISK TO DEVELOPMENT OUTCOME

76. The risk to development outcome is moderate. Many of the improvements made under the project that positively impacted outcomes on both the reduction of poaching number and HEC events have a strong likelihood to be sustainable. The improvements to the genetic lab at ANPN allowed for development of a high-quality lab which in turn has generated interest in DNA analysis through the lab from Cameroon and Nigeria. This in turn is likely to augment national budgets for maintenance of the lab. Regarding enhanced patrolling, commitment remains high in government to support conservation and protection of forest elephants as shown through their continued payment of ecoguard salaries. However, operational costs are still a concern and the lack of access to consistent budget for patrols operations, e.g., fuel, could put results at risk. (See recommendations below.) Finally, the efficiencies developed in patrolling, the collaboration developed with the Congolese rangers and the development of surveillance posts in key areas, e.g., near the border with Congo are relatively robust changes and at least somewhat resilient to a drop in budgets, for example.

V. LESSONS AND RECOMMENDATIONS

Lesson: Despite the challenges of inter-agency cooperation and past difficulties, ANPN and DGFAP worked well together in ensuring implementation of activities in their respective zones of responsibility. The project emphasized the full participation of both agencies from the outset which improved overall project ownership and interventions. Activities requiring collaboration were designed appropriately and with the participation of both agencies (e.g., responsibilities were primarily split by component and roles were assigned according to agency specialization). **Recommendation**: When utilizing two or more implementing agencies in a project ensure participation of both agencies from the outset and make sure the design allows for clear delineation of responsibilities, good communication throughout the implementation phase, support for collaborative activities where appropriate, and clear monitoring guidance and oversight from the PIU.

Lesson: Through its use of science-based methods, technology such as camera traps, etc. and involvement of the private sector and communities, the GeFaCHE project under the GWP has become a model for how to better understand where and how wildlife corridors should be sited and managed. **Recommendation**: Under the auspices of the GWP, a paper or dissemination note should be developed to highlight the methodologies used in confirming, establishing, and managing the wildlife corridors under GeFaCHE to provide field-tested guidance to other GWP countries which might benefit.

Lesson: Two electric fences were purchased and installed in the Ndindi region of the Mayumba National Park as well as in Mourindi in the Moukalaba-doudou park with successful results. The objective was to reduce HEC by blocking elephant access into the crop fields which are cultivated for subsistence agriculture. Several awareness-raising sessions were organized prior and following their installment, involving local authorities through a signed tripartite agreement (Town Hall, Departmental Council and ANPN) to ensure the technical maintenance and upkeep of these fences and to manage inter-community conflict. In addition, they were trained and provided with the appropriate tools, particularly to clear vegetation contacting the fence line. This allowed the communities to take full ownership of the fences and their upkeep. Electric fences are rather expensive to purchase and install, but their technology is proven to be efficient and is sustainable especially when appropriately maintained. **Recommendation:** For future projects, using electric fences would be successful and sustainable, albeit expensive, to reduce HEC and increase subsistence and income of communities provided appropriate awareness raising is conducted and ownership is taken by local authorities and communities. A cost-benefit analysis of the various fencing methods could be considered to assess whether cheaper options are efficient.

Lesson: While the government has funded the salaries of ecoguards post-project, meeting operational costs for surveillance missions is expected to be a challenge for government to cover. Technological solutions provide some help, but long-term sustainable financing for these operational costs is key to sustainable outcomes in the long-term. **Recommendation**: The government of Gabon should reconsider the establishing a conservation endowment fund to secure long-term, sustainable financing to ensure outcomes of this and other projects are maintained and their long-term goals for ecotourism development to diversify their economy can be met.

Lesson: Linking important outputs to government co-financing is risky. 150 km long forest road in Waka Park, to be undertaken and financed by the Ministries of Public Works and Water and Forests was never completed because the ministries did not allocate the budget for it. This then had a negative carry-on effect which led to two hydraulic pumps not being installed as it was impossible to transport the necessary industrial level drill due to the condition of the road. **Recommendation**: Identify dependent activities during project design phase and avoid cascading implementation issues through ensuring project financing is used for key 'starter' activities.

Lesson: The project did not meet its targets regarding satisfaction among female beneficiaries and had issues in reaching beneficiaries in remote areas with communications efforts. There is evidence from the Final Survey of Beneficiaries that a larger percentage of women than men were dissatisfied with project outcomes and that communication about the project in the remoter areas and parks was insufficient to raise awareness on the project activities sufficiently. While the survey did not uncover the reasons for dissatisfaction among women, it seems clear that further efforts were needed to engage specifically with women and to engage with communities more deeply in remote areas. **Recommendation**: While women were consulted in groups without men during initial stakeholder engagement, further separate engagement with women should be undertaken at regular intervals during implementation by social specialists and perhaps outside of the typical WB supervision missions. Findings should be fed back into the M&E system and project activities revised as needed. Teams should ensure that communication plans and other activities to be undertaken in remote areas are adapted to the challenges at play in these communities. Time, budget, and staffing needs for more challenging areas need to be assessed carefully and contracting for additional help from NGOs already operating in the areas should be considered.

ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: Reduced poaching

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Indicator 1: Proportion of illegally killed elephants (PIKE) in targeted national parks (disaggregated by national park)	Percentage	15.00 31-Dec-2015	10.00 31-Dec-2015		0.00 31-Jan-2023
PIKE Moukalaba-Doudou	Percentage	10.00 31-Dec-2015	3.00 31-Jan-2023		0.00 31-Jan-2023
PIKE Loango	Percentage	0.00 31-Dec-2015	1.00 31-Jan-2023		0.00 31-Jan-2023
PIKE Mayumba	Percentage	0.00	2.00		0.00

		31-Dec-2015	31-Jan-2023		31-Jan-2023
PIKE Waka	Percentage	100.00	2.00		0.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):

This PDO was met and exceeded the target of 10% for 2021, by achieving 0% of illegally killed elephants in the four targeted parks as a result of the monitoring and anti-poaching missions conducted by the project. This was achieved thanks to the increased number of eco-guards especially since 2018 and the increase in monthly surveillance budgets in the parks from 2020 which have made it possible to improve the surveillance of the project sites.

This indicator demonstrates the percentage of illegally killed elephants in the four targeted parks. It is calculated through dividing the total number of illegally killed elephants by the total number of deceased elephants. The detailed breakdown of the illegally killed elephants per targeted national park is necessary in order to understand the evolution of the indicator's results and why certain years the percentage was very high. For example, in year 2020 in Loango, out of the three deceased elephants, two were illegally killed (67%). This high percentage could be misinterpreted if the breakdown is unknown.

Objective/Outcome: Reduced human-elephant conflicts

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Indicator 2: Reported incidents of human-elephant conflicts in the target zones	Number	247.00 31-Dec-2015	107.00 31-Jan-2023		47.00 31-Jan-2023

Comments (achievements against targets):

The PDO was successfully achieved and exceeded targets. However, between 2017 and 2020, reported incidents of HEC were recorded above the desired targets given that the project registered complaints that were received across the country rather than just in project targeted parks. The data was corrected

in 2021 were only 79 out of the107 target were registered and in 2022 the downtrend continued with only 47 complaints registered across the four project targeted parks.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Indicator 3: Stage of development of corridor management plans by corridor	Number	0.00 31-Dec-2015	15.00 31-Jan-2023		15.00 31-Jan-2022
Corridor Loango - Moukalaba-Doudou	Number	0.00 31-Dec-2015	5.00 31-Jan-2023		5.00 31-Jan-2023
Corridor Moukalaba-Doudou - Mayumba	Number	0.00 31-Dec-2015	5.00 31-Jan-2023		5.00 31-Jan-2023
Corridor Mayumba - Conkouati	Number	0.00 31-Dec-2015	5.00 31-Jan-2023		5.00 31-Jan-2023

Comments (achievements against targets):
The 5 stages for developing of corridor management plans were achieved for all three corridors, namely: Loango-Moukalaba, Moukalaba-Mayumba, Mauyumba-Conkouati, and scored 5 for a rating varying from 1 to 5 per stages of achievement as follows: (1) ToR consultancy, design of the scientific protocol and installation of camera traps; (2) data collection, analysis and interpretation; (3) identification and mapping of corridors; (4) threat assessment, specifics for each corridor, draft management plan, submission for internal consolidation; (5) validation of the report.

The three management plans for the 3 corridors were finalized in August 2021. In addition, the results of the studies made it possible to identify a fourth corridor Moukalaba-doudou – Mayombe. The corridor protection plan carried out in 2022 integrated all four corridors well.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Indicator 4: Satisfaction by target beneficiaries of project interventions (of which female)	Percentage	0.00 31-Dec-2015	70.00 31-Jan-2023		70.50 31-Jan-2023
Satisfaction of female	Percentage	0.00	80.00		45.30

Comments (achievements against targets):

The annual target values relate to the proportion of satisfied (%) among the beneficiaries targeted by the project. This proportion increased from 5% in year 1 (including 15% women), to 70.5% by project closing, despite challenges faced by the project due to the Bank's suspension of disbursements for the Gabon portfolio in 2021 following the country's payment default. As a result of these suspensions, activities were stopped and communities felt "abandoned" and expressed their dissatisfaction during the survey conducted in 2021 which resulted in 53% satisfaction rate. Added to this is the non-rehabilitation of the 150 km long forest road in Waka Park, intended to be financed by the Ministries of Public Works and Water and Forests. The non-rehabilitation of the road led to the non-construction of the 2 hydraulic pumps (impossible to transport the drill on a tank carrier with the road conditions) dedicated to the vulnerable local populations. This activity, which is not a project financed activity, was mistakenly included in the satisfaction survey.

The PIU communicated with the local management committees of Waka park and the communities to explain the reasons for not carrying out the said activities and a new survey was conducted in November 2022 and which focused solely on the project activities, which allowed the achievement of the PDO by project closing, in January 2023.

Unfortunately, the project missed its target on achieving an 80% satisfaction rate among women. This was partially due to setting an ambitious target for women at the design stage. The survey for beneficiaries conducted at the time of project completion did not reflect why 45% of women vs. 80% of men were satisfied with the project. It may be that two activities that could not be completed particularly adversely affected women (i.e., the 150 km road rehabilitation in Waka Park; two hydraulic pumps aimed at supporting the local population). The road would have provided women with greater access to markets and the pumps would have particularly supported women who are generally responsible for water collection.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Indicator 5: Direct project beneficiaries	Number	0.00 31-Dec-2015	4,150.00 31-Jan-2023		5,285.00 31-Jan-2023
Female beneficiaries	Percentage	0.00	60.00		47.40

Comments (achievements against targets):

The project reached 5,285 direct beneficiaries, about 27% higher than the expected target. While this was a positive outcome overall, it did result in a lower-than-expected percentage of women reached. While the number of women reached, 2,505 was in line with the number expected at the start of the project (2,490), due to the larger than expected number of beneficiaries as a whole, the percentage for women was about 13% less than the hoped for target.

A.2 Intermediate Results Indicators

Component: Component 1: Support to National Ivory Action Plan implementation

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR indicator 1.1 People trained in wildlife crime prevention (disaggregated by type of trainees)	Number	0.00 31-Dec-2015	310.00 31-Jan-2023		403.00 31-Jan-2023
Park warden trained	Number	0.00 31-Dec-2015	115.00 31-Jan-2023		283.00 31-Jan-2023
Chief conservators trained	Number	0.00 31-Dec-2015	4.00 31-Jan-2023		18.00 31-Jan-2023
Ministerial staff trained	Number	0.00 31-Dec-2015	30.00 31-Jan-2023		37.00 31-Jan-2023
Gendarmerie staff trained	Number	0.00 31-Dec-2015	12.00 31-Jan-2023		12.00 31-Jan-2023
Police staff trained	Number	0.00 31-Dec-2015	7.00 31-Jan-2023		8.00 31-Jan-2023
Customs staff trained	Number	0.00	6.00		6.00

		31-Dec-2015	31-Jan-2023		31-Jan-2023
Magistrate staff	Number	0.00	6.00		10.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):
A total of 403 officers, in 8 different functions, including police, eco-guards, customs, Water & Forests, Judiciary, Gendarmerie, and Navy Officers, have received training in the field of wildlife crime prevention by end of the initial date of project closing in December 31, 2021.

Component: Component 2: Support for integrated landscape management and local community participation

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 2.1: Proportion of the targeted zone covered by wildlife patrols according to defined criteria (disaggregated by national park)	Percentage	52.00 31-Dec-2015	100.00 31-Jan-2023		100.00 31-Jan-2023
Moukalaba-Doudou % area covered by patrols	Percentage	64.00 31-Dec-2015	90.00 31-Jan-2023		100.00 31-Jan-2023
Loango % area covered by	Percentage	34.00	75.00		100.00

patrols		31-Dec-2015	31-Jan-2023		31-Jan-2023
Mayumba % area covered by patrols	Percentage	19.00 31-Dec-2015	60.00 31-Jan-2023		100.00 31-Jan-2023
Waka % area covered by patrols	Percentage	92.00 31-Dec-2015	98.00 31-Jan-2023		100.00 31-Jan-2023

Comments (achievements against targets):
Wildlife patrols were carried out in the 4 Parks throughout the life of the project and the targeted proportion was fully achieved in 2021 and 2022.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 2.2: Protected Area Management Effectiveness Tracking Tool (PAMETT)	Number	55.00 31-Dec-2015	74.00 31-Jan-2023		82.00 31-Jan-2023
PAMETT Score Moukalaba-Doudou	Number	57.00 31-Dec-2015	75.00 31-Jan-2023		88.00 31-Jan-2023
PAMETT Score Loango	Number	55.00	75.00		78.00

		31-Dec-2015	31-Jan-2023		31-Jan-2023
PAMETT Score Mayumba	Number	56.00	80.00		83.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023
PAMETT Score Waka	Number	53.00	70.00		77.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):

The PAMETT Protected Area Management Effectiveness Tracking Tool's target values were fully achieved by closure. They were evaluated in November each year during project implementation to measure the effectiveness of management of the 4 parks. The PAMETT sheets were sent to the Conservators for the pre-filling of the relevant data, then completed on site with the Monitoring-Evaluation Project specialist. The results showed that the effectiveness of protected area management have gradually improved park by park and year after year until full achievement.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 2.3: Total annual person-days of patroling in national parks	Number	15,609.00 31-Dec-2015	26,564.00 31-Jan-2023		14,223.00 31-Jan-2023
Total annual person-days of patroling in Moukalaba-Doudou	Number	4,686.00 31-Dec-2015	7,623.00 31-Jan-2023		3,498.00 31-Jan-2023

Total annual person-days of patroling in Loango	Number	3,927.00	6,633.00		2,970.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023
Total annual person-days of patroling in Mayumba	Number	2,838.00	5,081.00		2,095.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023
Total annual person-days of patroling in Waka	Number	4,158.00	6,930.00		5,660.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):

The target values of this indicator for each park were not achieved since the start of the project, and the two suspensions of disbursements from the Gabon portfolio in 2021 resulted in the hold of activities for 4 months, which negatively impacted the indicator. The results framework set the same number of man-days each year until the end of the project. It should be noted, however, that the rates of achievement of the total target values go from 51% in the first year to 49% in year 2, but then improve to 55% in year 3, to reach 61% in year 4 and finally to 54 % in 2021. The best results were obtained in Moukalaba-Doudou in 2018 (75%) and in Loango in 2019 (77%) and in 2020 (96%) and in Waka in 2021 (82%). The largest deficits affected Waka in 2017 (13%), Loango and Mayumba in 2018 (32% and 30%), Mayumba in 2019 (37%) and Waka in 2020 (32%).

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 2.4: Annual awareness raising campaigns by Local Management Consultative Committee	Number	0.00	8.00		46.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023

(CCGL)					
Annual awarness raising campaings by CCGL in Moukalaba-Doudou	Number	0.00 31-Dec-2015	2.00 31-Jan-2023		31.00 31-Jan-2023
Annual awarness raising campaings by CCGL in Loango	Number	0.00 31-Dec-2015	2.00 31-Jan-2023		10.00 31-Jan-2023
Annual awarness raising campaings by CCGL in Waka	Number	0.00 31-Dec-2015	2.00 31-Jan-2023		3.00 31-Jan-2023
Annual awarness raising campaings by CCGL in Mayumba	Number	0.00 31-Dec-2015	2.00 31-Jan-2023		2.00 31-Jan-2023

Comments (achievements against targets):
The original target values correspond to 2 awareness campaigns annually for communities living in or around the 4 parks for the duration of the project. These were achieved annually from 2018 until project closure.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 2.5: Operators in	Number	0.00	18.00		18.00

the target zones having a management plan for wildlife under implementation		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):

the target values for this indicator were achieved per set targets in 2018, 2019, 2020, 2021, and in 2022. It was recorded that 18 of the 26 logging and oil operators in the project area have a Wildlife Protection Plan (PPF): (i) 6 (out of 8) in Moukalaba-doudou; (ii) 3 (out of 5) in Loango; (iii) 5 (out of 7) in Mayumba; and (iv) 4 (out of 6) in Waka.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 2.6: Area brought under enhanced biodiversity protection	Hectare(Ha)	0.00 31-Dec-2015	701,000.00 31-Jan-2023		766,427.00 31-Jan-2023

Comments (achievements against targets):

A protected area is considered "under enhanced biodiversity protection" when its PAMETT score reaches 75% or more, characteristic of a "highly functional management system according to the guidelines of the key sector criteria". target expected at the end of the project (701,000 ha) corresponds to the total area of the 3 National Parks of the project whose PAMETT objective in years 5 and 6 is set at 75% (Moukalaba-Doudou, Loango and Mayumba: IR 2.2)

Component: Component 3: Border Surveillance (Gabon-Congo)

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion

| IR Indicator 3.1 : Border area covered by patrols (ANPN, DGFAP) | Percentage | 0.00

31-Dec-2015 | 50.00

31-Jan-2023 | | 60.00

31-Jan-2023 |

Comments (achievements against targets):

The annual target values show the progress (from 15% to 50%) of the share of border area covered by ANPN and DGFAP patrols against poachers' intrusions into Gabonese territory. The results obtained show significant progress since the start of the project, in particular thanks to the acquisition of field equipment, vehicles and motorcycles. The expected target value of 50% was achieved in 2021. There was no activity in 2022, as cross-border surveillance patrols ended in 2021 (initially planned closing year).

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IR Indicator 3.2: Joint patrols in national parks Mayumba (Gabon) /Conkouati (Congo)	Number	0.00 31-Dec-2015	50.00 31-Jan-2023		58.00 31-Jan-2023

Comments (achievements against targets):

The target values of this indicator, complementary to those of IR 3.1, show yearly increase (from 6 to 50) in the number of missions carried out since the start of the project. There was no activity in 2022, as cross-border surveillance patrols ended in 2021 (initially planned closing year).

Component: Component 4: Project Coordination, management and Monitoring and evaluation

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion

Minimum implementation of annual work plan is completed	Percentage	0.00	100.00		100.00
		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Project safeguard instruments are diligently implemented	Yes/No	No	Yes		Yes
		31-Dec-2015	31-Jan-2023		31-Jan-2023

Comments (achievements against targets):

B. KEY OUTPUTS BY COMPONENT

Objective/Outcome 1: Reduction of elephant poaching in target zones	
Outcome Indicators:	1. Proportion of illegally killed elephants (PIKE) in targeted national parks (PDO 1) 2. Stage of development of corridor management plans by corridor (PDO 3)
Intermediate Results Indicators:	1. People trained in wildlife crime prevention (disaggregated by type of trainees) (IRI 1.1) Proportion of the targeted zone covered by wildlife patrols according to defined criteria (IRI 2.1) Protected Area Management Effectiveness Tracking Tool (PAMETT) (IRI 2.2) annual person-days of patroling in national parks (IRI 2.3) Area brought under enhanced biodiversity protection (RI 2.6) 2. Border area covered by patrols (ANPN, DGFAP) (IRI 3.1) 3. Joint patrols in national parks Mayumba (Gabon) /Conkouati (Congo) (IRI 3.2)
Key Outputs by Component Outputs related to reduction of elephant poaching from activities under Components 1, 2, and 3.	1. 403 individuals trained in wildlife crime and management HEC database developed and operational 2. 6 workshops provided on training on wildlife legislation held 3. Environmental education completed and 1059 students reached 4. 45 ecoguards recruited 5. 766,427 ha under enhanced biodiversity protection 6. 58 joint patrols with Congo rangers on transboundary parks 7. MIS database established 8. Genetic lab strengthened including, 5 new staff, additional collection missions on ivory seized in neighboring countries, provision

	of equipment and consumables, e.g., cold storage machine, re-agents, additional field missions for collection of DNA in targeted parks9. 9. All 4 elephant corridor management plans elaborated 10. 100% of the 4 national parks and 60% of the border surveillance complete5 11. 42 km roads rehabilitated 12. A surveillance antenna built on the Gabon Congo border, for 7 new staff.
Objective/Outcome 2: Reduction of human-elephant conflicts in target zones.	
Outcome Indicators:	1. Reported incidents of human-elephant conflicts in the target zones (PDO 2) 2. Satisfaction by target beneficiaries of project interventions (percent of which female) (PDO 4) 3. Direct project beneficiaries, (percent of which female) (PDO 5)
Intermediate Results Indicators:	1. Annual awareness raising campaigns by Local Management Consultative Committee (CCGL) (IRI 2.4) 2. Operators in the target zones having a management plan for wildlife under implementation (IRI 2.5)
Key Outputs by Component Outputs related to reduction of human-elephant conflict from activities under Components 2	1. 46 Awareness campaigns for CCGLs 2. 2 electric fences constructed incl. solar panels and community training 3. Community compensation system for elephant event strengthened and implemented 4. 18 private sector operators (concessions) wildlife management plans completed and under implementation 5. 5,285 direct beneficiaries reached 6. A Wildlife Human conflict database established.

ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Salimata D. Follea, Anders Jensen	Task Team Leader(s)
Kouami Hounsinou Messan	Procurement Specialist(s)
Aissatou Diallo	Financial Management Specialist
Virginie Anne Marie Vaselopulos	Team Member
Kristyna Bishop	Social Specialist
Enagnon Ernest Eric Adda	Team Member
Maya Abi Karam	Counsel
Adjalou Celestin Niamien	Team Member
Sonia Vanecia Boga	Team Member
Abdoulaye Gadiere	Social Specialist
Romain Pierre Beville	Team Member
Supervision/ICR	
George Henry Stirrett Wood	Task Team Leader(s)
Rose Caline Desruisseaux-Cadet, Lanssina Traore	Procurement Specialist(s)
Henie Dahlia Takodjou Meku Epse Nsinga	Financial Management Specialist
Adjalou Celestin Niamien	Financial Management Specialist
Astrid Greta Gotalowya Ossouka	Team Member
Charlie Foyet Sonkeng	Environmental Specialist
FNU Owono Owono	Social Specialist
Dania Mosa	Team Member

Sylvie Munchep Ndze	Procurement Team
Maya Abi Karam	Counsel
Antoinette Pongui	Procurement Team
Aurore Simbananiye	Team Member
Odilia Renata Hebga	Team Member

B. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US$ (including travel and consultant costs)
Preparation		
FY16	1.311	62,998.69
FY17	3.440	23,554.24
Total	**4.75**	**86,552.93**
Supervision/ICR		
FY17	.200	30,082.60
FY18	4.532	49,826.74
FY19	5.937	53,248.92
FY20	10.469	72,163.21
FY21	3.325	45,302.15
FY22	3.975	59,844.08
FY23	1.600	53,717.08
Total	**30.04**	**364,184.78**

ANNEX 3. PROJECT COST BY COMPONENT

Components	Amount at Approval (US$M)	Actual at Project Closing (US$M)	Percentage of Approval (US$M)
Support to National Ivory Action Plan implementation	1.14	1.14	100
Support for integrated landscape management and local community participation	5,88	5.88	100
Border Surveillance (Gabon-Congo)	1.20	1.20	100
Project Coordination, management and Monitoring and evaluation	.84	.83	99
Total	**0.00**	**9.05**	**0.00**

ANNEX 4. EFFICIENCY ANALYSIS

An economic analysis was not conducted at the design stage. With GEF methodology, in lieu of standard economic rate of return analysis, an Incremental Cost Analysis[26] was undertaken at the appraisal to estimate the project's efficiency. Since the baseline scenario (without the project) was not conducted, the economic analysis of the project at closing has attempted to measure the efficiency of selected interventions, provides updates on the GEF incremental cost analysis, and briefly discusses implementation efficiency.

GEF Project Incremental Analysis

Through its development objectives and design, the project supported Objective 2 of the GEF 6 Biodiversity Strategy: *to reduce threats to globally significant biodiversity* and continues to be relevant to Objective 1 of the current GEF 8 Biodiversity Strategy - *To improve conservation, sustainable use, and restoration of natural ecosystems*.

One key value added of this project stems from its synergy with the €10 million AFD project *"Eléphant Gabon."* A significant result of this cooperation includes establishment of a wildlife genetic analysis laboratory financed by AFD and the World Bank, set up by the National Agency for the Preservation of Nature. By analyzing DNA samples, it is now possible to trace and identify individuals involved and prosecute offenders.[27] This is the first Wildlife Genetic Analysis Center in Central Africa. Inaugurated on March 11, 2021, this new laboratory is based at the National Agency for the Preservation of Nature, which implements the GoG's policy on the protection, management and development of national biodiversity. The use of wildlife DNA is highly valuable in the tracking of those involved in illegal hunting and is a powerful tool in the range of techniques that can be applied in an investigation on a wildlife crime. It's also a method recommended by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). While difficult to quantify, establishment of this laboratory may have significant longer-term benefits.

Relevant NGO programs conducted in coordination with the project include: 1) support from WCS for protected area management in the TriDom transboundary conservation area; 2) support and technical assistance by Conservation Justice for investigations and prosecutions of wildlife trafficking; 3) support by Space for Giants (a key ICCF Group/CCN partner) for interventions to combat human-elephant conflict and build capacity of prosecutions and the judiciary; and 4) general programs of the African Wildlife Foundation.

Gabon is one of the key participants of the GEF Global Wildlife Program (GWP). The activities of this project are consistent with those indicated for the GWP and link to certain indicators in the GWP results framework, including support to national anti-poaching strategies through the implementation of the

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[26] Incremental Cost Analysis is the additional costs associated with transforming a project with national or local benefits into one with global environmental benefits.

[27] *https://www.afd.fr/en/actualites/gabon-using-dna-hunt-poachers?origin=/en/rechercher?query=Gabon&size=20&sort=_score%2Cdesc&filter[0]=source_k=afd&filter[1]=thematic_k=Bio diversity&facetOptions[0]=country_k,size,200&facetOptions[1]=thematic_k,size,999&facetOptions[2]=publication_date_month, size,999&type=*

Gabon National Ivory Action Plan (Component 1). Activities to strengthen protected area management and law enforcement at national, local, and regional levels are contained, respectively, in Components 1, 2, and 3. The GWP also targets communities to increase their capacity to live with and manage wildlife. Activities in Component 2 aim to reduce human-wildlife conflict and to strengthen local community governance structures to better manage local resources.

Project success is supported by external data. According to the reports by the CITES Monitoring Illegal Killing of Elephants (MIKE) Program,[28] both number of elephant carcasses as well as number of illegally killed elephants reduced during project implementation, from 51 and 47 in 2016 respectfully to 20 and 5 in 2020 (2021 data might be affected by the lack of reporting during COVID-19 period) (Figure 1).

Figure 1. **CITES, Monitoring the Illegal Killing of Elephants, Gabon 2011-2021**
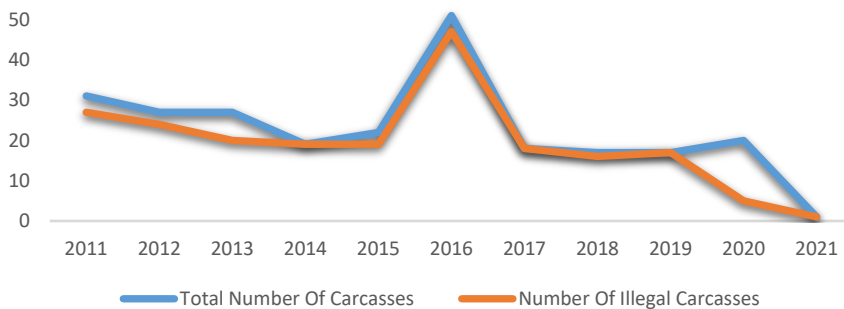
Source: CITES Monitoring the Illegal Killing of Elephants Program, 2022

With the 2020 poacher prices for raw tusks between US$79-98 per kg[29], it is expected that the project resulted in benefits in terms of prevented killing between US$36,972-86,632[30], with at least US$308,880-583,440 of avoided trades (or benefits) if market price in China is taken into account.

Human-Elephant Conflict. As reported by the PIU, additional agricultural income to the household due to reduced or zero elephants' intrusion is about 80,000 FCFA per month.[31] Over the last two decades, per capita income has declined as population growth has outpaced aggregate income growth, leading to a 20% decrease in real GDP per capita since 1990. Poverty remains a significant issue, with one-third of the population living below the $5.5/day poverty line and 14% unemployed.[32] According to the Anker Living Wage Reference Value for rural Gabon in 2021, the monthly income should be FCFA 200,770 (equivalent to USD 3692) with a 95% confidence interval ranging from FCFA 185,077 to FCFA 217,738.[33] Thus, a monthly income increase of FCFA 80,000 (approximately US$134) is a considerable amount for

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[28] *https://cites.org/eng/prog/mike/index.php/portal*

[29] *https://www.savetheelephants.org/about-elephants-2-3-2/elephant-news-post/?detail=worrying-signs-for-elephant-conservation-data-shows-2020-rise-in-black-market-ivory-prices*

[30] Average weight of a mature elephant tusk typically ranges from 80 to over 150 pounds (80 pounds = 36kg; 150 pounds = 68kg) (*https://worldelephantday.org/how-to-help-elephants/elephant-facts/2#:~:text=An%20African%20bull's%20tusks%20can,%3B%20150%20pounds%20%3D%2068kg*).

[31] A woman in rural areas, after having ensured the food of her household with the products from her plantations, can collect about 80,000 FCFA per month with the sales of the crops of his agriculture.

[32] The World Bank. (2022) "Country Economic Memorandum: Gabon - Toward More Inclusive and Greener Growth."

[33] Anker Research Institute. (2021) "Anker Living Wage Reference Value for Rural & Urban Gabon."

the rural population. While information about the project population or household numbers was not collected by the project, UNFRA[34] data provides an estimate number of households in both villages where electric fencing was installed under the project (110 households in Ndindi and Mourindi. Population in Ndindi in 2019 was 1,110, with 864 men and 246 women. In this province (Nyanga) the average size of the household is estimated as 4.4 people[35]). With the available data it is possible to estimate NPV for this subcomponent: cost of the local interventions on prevention of the HEC is US$1.0 million, and considering inputs discussed above, the NPV for these interventions is estimated at US$ 0.76 million with a discount rate of 6 percent.

The effectiveness of the interventions to reduce human-elephant conflict is considered significant and supported by the indicator "Reported incidents of human-elephant conflicts in the target zones;" it is recorded that the number of incidents reduced from 247 as reported at the baseline to 79 at the time of project closure.

Cost effectiveness. The project area under enhanced biodiversity protection at the time of project closure was 738,387 ha, with a cost-effectiveness of about $12 per ha, which is compatible with the other similar GEF projects (e.g., $10 per hectare in Amazon Region Protected Areas Program;[36] similarly, In GEF-5, the programming to improve effective management of protected areas considered around $16 per ha ($4.1 per ha per four years[37]) as an appropriate rate of cost-effectiveness. According to the GEF Independent Evaluation Office report, "Evaluation Of GEF Support To Sustainable Forest Management,"[38] average cost per ha in medium size grant protected area projects was slightly above $11 per ha).

Other contributions. Several project interventions might result in strong environmental and socio-economic benefits. While difficult to quantify these benefits might have longer-term positive impact:

- Development of the corridor management plans. These are comprehensive land use plans defined in the Forest Code (currently under preparation). They go beyond traditional land use plans, as they will determine areas where for example infrastructure activities in a legal sense are prohibited and will also lead to demarcation of the corridors. Consultations will include all stakeholders including a validation of the final management plans by all of them.
- The recruitment of 45 project eco-guards, including 14 women; four of the eco-guards included representatives of the indigenous Pygmies-Babongo people;
- Increasing capacity of the transport to cross the Ngounié River at Sindara by launching the barge at Sindara-Song, operated by locally hired technicians;

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[34] *https://gabon.unfpa.org/sites/default/files/pub-pdf/Resultats%20Globaux%20RGPL%281%29.pdf*

[35] Nyanga province statistics are: number of households – 11,773, number of people – 52,854, or . ~4.4 people in household (UNFRA 2019 (*https://www.unfpa.org/data/world-population/GA*)). Ndindi: 1110: men 864, women 246 , ~ 1110/4.4=252 households (maybe at least 246/4.4=55).

[36] *https://www.thegef.org/news/protected-areas-and-more#:~:text=ARPA%2C%20however%2C%20demonstrated%20that%20protected,protected%20areas%20brings%20multiple%20benefits.*

[37] *https://www.sprep.org/attachments/VirLib/Regional/cbd-gef-6-replenishment-value-est-aichi-targets.pdf*

[38] 2022. Evaluation Of GEF Support To Sustainable Forest Management. GEF/E/C.62/02 May 25,2022 (*https://www.thegef.org/sites/default/files/documents/2022-05/EN_GEF_E_C62_02_SFM_May_25_Final.pdf*)

- The rehabilitation of the access roads (the Mourindi-Doussala road and the bridge over the Dibotsa);
- Involvement of the local youth in the construction of the surveillance antennas;
- 41 households in Nyoye and Evouta villages benefited from the construction of hydraulic pumps;
- Awareness campaigns focused on behavior change to reduce elephant poaching

Implementation efficiency. The project's closing date was extended once at no additional costs, in October 2021, by 13 months to address implementation delays and ensure achievement of the PDO. The implementation of the project was affected by two factors (i) the COVID-19 pandemic, and (ii) the Government's lapsed loans which led to the suspension of disbursements by the Bank from mid-March to mid-July 2021. There was no other extension or restructuring of the project. Project management costs remained within the same ratio as it was envisaged at the design stage.

Discussion.

Valuing carbon services produced by elephants. Value of ecosystem services provided by elephants can be measured by estimating carbon storage and sequestration as these are the only market-valued services that could support investments and trading in the near term. Berzaghi et al (2023)[39] estimated that in Gabon the value of forest elephant services in under different conservation scenarios at a carbon price of $51.6/tCO2 would be worth US$14,078 million if elephants were protected, or between US$11,360 to US$10,336 million under medium and low protection scenarios (growth of elephant population at rates 50% and 25% during a 30 year period) (Figure 2). Elephant population growth would generate a carbon sink of 109 MtC (64 to 153) across tropical Africa in the next 30 years.
The forest elephant was chosen for this research for several ecological, conservational, and methodological reasons. 1) Elephants contribute to increasing rainforest aboveground carbon by reducing the density of small trees primarily through trampling and partly due to consumption and by dispersing seeds of particularly large trees. 2) Forest elephants are in rapid decline due to poaching, but they were once widespread across tropical Africa and have been recently identified as critically endangered by the International Union for Conservation of Nature. 3) Forest elephants are a keystone species performing other critical and unique ecological functions, such as seed and nutrient dispersal. 4) Elephants are considered an umbrella species because they require large areas, and their protection would benefit the whole ecosystem and promote biodiversity. 5) Human–elephant conflict is on the rise in central Africa because of shrinking forest habitat, and funding is needed to mitigate this conflict. 6) Elephants are one of the few animal species for which a correlation was established between population density and an increase in carbon storage services an important proposition for funding their conservation across countries and obtaining carbon and additional ecosystem-wide benefits.

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[39] Berzaghia F., R. Chamib, T. Cosimanoc, C. Fullenkampd (2022). Financing conservation by valuing carbon services produced by wild animals. Columbia University, New York, NY

Figure 2. Value of forest elephant services in African countries under different conservation scenarios at a carbon price of $51.6/tCO2[40].
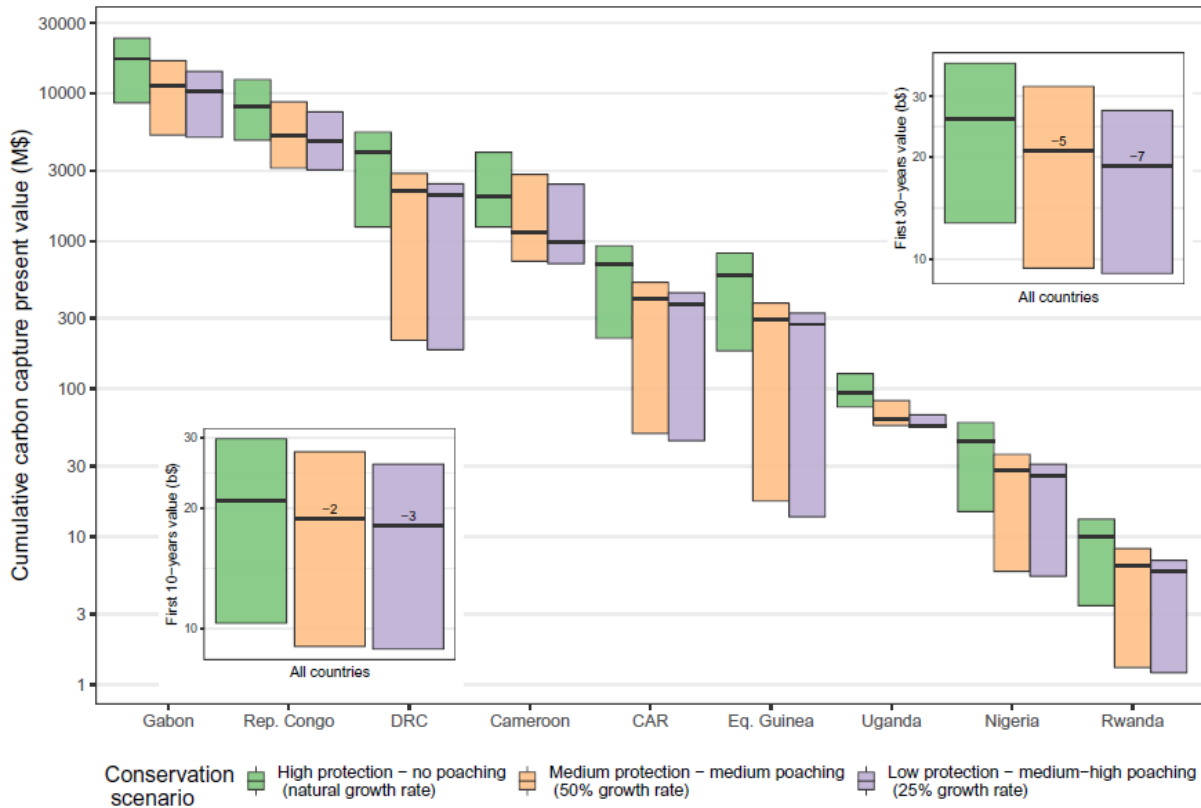
Source: Berzaghia F., R. Chamib, T. Cosimanoc, C. Fullenkampd (2022). Financing conservation by valuing carbon services produced by wild animals. Columbia University, New York, NY

Wildlife Tourism. Value of living elephant in the context of wildlife tourism development was estimated by several studies. Africa has approximately 415,000 African elephants across their 37 range states in Sub-Saharan Africa[41]. Researchers in 2016 estimated that 110 protected areas that harbor elephants receive 2 million visitors a year[42]. Elephant poaching for ivory continues to threaten populations, even in protected areas. A 2013 study by the David Sheldrick Wildlife Trust estimated the tourism value of a single living elephant as US$1.6 million over its lifetime to travel companies, airlines, and local economies. Adoption of this value to estimate the benefits of the protection of elephant in Gabon require additional research, to confirm the value for wildlife tourism in the country context.

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[40] Present values are the cumulative sum of yearly carbon service in PAs over an investment horizon of 30 y and include the contribution of present and future generations of elephants

[41] C. R. Thouless et al., *African Elephant Status Report 2016: Update from the African Elephant Database* (Gland, Switzerland: IUCN, 2016), *https://portals.iucn .org/library/sites/library/files/documents/SSC-OP-060A.pdf.*

[42] R. Naidoo et al., "Estimating Economic Losses to Tourism in Africa from the Illegal Killing of Elephants," Nature Communications 7 (2016): 13379, doi: 10.1038/ncomms13379.

ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

Annex 5a:

Borrower's Comments on the Implementation Completion Report (ICR)

The draft of this ICR was shared with the Borrower prior to finalization in July 2023 with a kind request for comment.

The Borrower provided minor corrections and suggested some additional text for inclusion in the ICR. The World Bank Task Team was pleased to include all the Borrower's requested edits in this final ICR.

Borrower's Completion Report
Executive Summary

1. The government of Gabon has demonstrated a strong commitment to tackling the pressing issues of poaching and the illegal wildlife trade, while also recognizing the importance of improving the management of protected areas. One significant concern has been the decline of forest elephants in Gabon, which are estimated at 40,000 elephants and represent approximately 50% of Africa's total elephant population. The decline has been attributed to factors such as ivory poaching which is sold 2,000 and 3,000 USD per kg, competition for resources, and limitations on the development of wildlife tourism.

2. To address these challenges, the government has prioritized the fight against ivory smuggling, human-elephant conflicts, and the illegal wildlife trade. Their efforts to prevent conflicts between humans and elephants and to combat elephant poaching have been commendable. In line with this commitment, the Wildlife Management and Human-Elephant Conflicts Project (GeFaCHE) was initiated, with funding from the Global Environment Facility (GEF) and support from the World Bank.

3. The GeFaCHE project focuses on two key objectives. First, it aims to strengthen anti-poaching activities to safeguard elephants in their natural habitat and minimize crop destruction. Second, it seeks to implement measures that prevent and mitigate human-elephant conflicts, thereby protecting the livelihoods of local communities heavily impacted by agricultural losses.

4. The project specifically targets rural communities residing in and around four designated areas, including national parks, buffer zones, and peripheral zones. Its overarching goal is to reduce both elephant poaching and human-elephant conflicts in these areas. Despite encountering implementation difficulties arising from the COVID-19 pandemic and the two temporary suspension of disbursements, the project has remained committed to its participatory approach, ensuring a focus on resolving conflicts to benefit local communities and elephant populations.

5. Noteworthy investments have been made during the project's implementation. These include the installation of electric barriers to deter elephants, a surveillance antenna to monitor areas

prone to conflicts, and a barge to facilitate transportation within Waka National Park, and the wildlife and ivory DNA laboratory. Responsibility for the maintenance and upkeep of these assets will be assumed by relevant entities, such as the ANPN, DGFAP, and the Gabonese State's Provincial Directorate of Public Works.

6. To ensure the sustainability of activities implemented within the project, and beyond its closure a mode of operation of certain equipment after the project has been thought out:
   - During the inauguration and reception of the electric fences, a tripartite agreement (Town Hall, Departmental Council and ANPN) was signed to ensure the technical maintenance and upkeep of these fences;
   - The Doussala surveillance antenna was received and handed over to the Ministry of Water and Forests for the DGFAP, which will ensure its overall functioning and maintenance;
   - Sindara-Song Barge is maintained by Waka National Park. This responsibility will continue after the GeFaCHE project closes as well as the staff assigned to it;
   - The rehabilitation of the road and the bridge is the responsibility of the Gabonese State through the Provincial Directorate of Public Works of the province of Nyanga.

7. However, the project faced challenges and couldn't implement some activities due to factors beyond its control that impacted the percentage of satisfaction of beneficiaries including:
   - The rehabilitation of the 150 km long Sindara-Oghoubi track in the Waka National Park, planned under component 2, was canceled for unavailable funds and not programmed at the Ministry of Public Works.

8. Because the evaluation carried out by the Ministry of Public Works in full execution of GeFaCHE, was quantified at 1.4 billion FCFA due to about twenty works to be repaired, in particular twenty-three bridges;
   - The construction of 2 hydraulic boreholes in Waka Park in Nyoye1 and Evouta villages was not done because of the non-rehabilitation of this road. Machines such as the Perforator) could not be transported to the site;
   - The Ndindi surveillance antenna at the Gabon-Congo Brazzaville border planned in component 3 was not built due to the closure of the Mayumba – Ndindi road (distance of 90 km), and Ndindi which is not reachable only by river.

9. On the other hand, the responsiveness of the Project Coordination Unit (PCU) has been demonstrated in managing delays and institutional decisions as well as addressing contextual challenges encountered during the early stages of the project and beyond. Despite some unsatisfactory results from the beneficiary surveys, these were turned around by the closing of the project which confirmed the substantial impacts of the project.

10. Drawing on the past experiences of GEF-funded projects focused on biodiversity and wetland protection, the GeFaCHE project has garnered valuable insights through continuous learning and constructive dialogue among the government, the World Bank, and other partners. The project's tripartite approach involving the government, the World Bank, and the beneficiaries has proven effective in achieving its objectives.

11. The lessons learned from the GeFaCHE project hold great significance for the design of future projects and the formulation of reforms aimed at preserving and protecting biodiversity and ecosystems. This project serves as a testament to the government's dedication and the active involvement of stakeholders in addressing critical wildlife conservation issues in Gabon.

ANNEX 6. SUPPORTING DOCUMENTS (IF ANY)

6A: Description of Project

Project Components

1.   The project is organized around four main components, the collective aim of which is to support the Government of Gabon in its efforts to reduce elephant poaching and human-elephant conflicts in the target zones, and in so doing to improve crop protection and farm income benefits in local communities. Elephants are an important natural asset for the country with the potential to generate national – and rural – income through the eventual development of ecotourism. This natural asset, and any future income benefits it is likely to generate, is currently under threat due to poaching for ivory. Moreover, elephants straying outside their natural habitat as a result of poaching represent a real risk to community livelihoods because their movement into settled areas often results in destroyed crops and reduced farm incomes. By improving the targeted parks surveillance – thus reducing both the poaching threat to elephants and the number and negative impact of HEC – community income benefits and livelihoods will be substantially enhanced.

2.   The project is designed around the four main components below whose collective interventions summarized below will contribute to the overall objective of reducing elephant poaching and human-elephant conflicts in the target zones.

3.   Component 1 will develop the national tools and measures for elephant management through the implementation of the National Ivory Action Plan (NIAP). The NIAP entails (i) increasing knowledge on elephant populations, their movement and HEC; (ii) strengthening enforcement of wildlife protection laws; and (iii) communication and public awareness about elephant poaching/ivory trafficking and its negative impacts. HEC knowledge will help Government and communities identify the most effective means to reduce HEC. Strengthened law enforcement will contribute to poaching reduction and, thereby, reduce elephant migration into areas that may contain human settlements. Finally, the communication and public awareness campaigns will help communities understand the long-term implications of elephant poaching.

4.   Component 2 will enhance surveillance inside the target zones through the implementation of the ANPN-designed parks management plans, involving all stakeholders. ANPN/DGFAP will increase surveillance and develop management plans for elephant corridors in order to reduce poaching. In addition, corridor management planning provides an essential element to reducing HEC through land use planning that ensures human settlements are outside of the identified corridors. The component will also strengthen local bodies' (CCGLs) capacity to co-manage local resources, and provide communities with opportunities for enhanced livelihood. New HEC mitigation techniques will be tested and evaluated under Component 2. Women will benefit from HEC protection that increases farm yields, and small infrastructure improvements that alleviate daily tasks and improve access to local markets.

5.   Component 3 will support the development of cross-border anti-poaching activities through the effective implementation of the cross-border cooperation agreement that was signed in 2010 but is not yet effective.

6.   Component 4 will provide for overall project management, as well as coordination with other donor projects that include similar activities in different areas of the country.

7.   The four national parks targeted by the project, namely: Moukalaba Doudou, Loango, Mayumba and Waka, are located in the southwest quadrant of the country. The project complements a similar project financed by the French Development Agency (*Agence Française de Développement*, AFD), which focuses on the national parks in the northeast of the country. It also complements projects financed by USFWS and WWF, which have on-going anti-poaching activities in the project's target zones.

Component 1: Support to the National Ivory Action Plan implementation (GEF US$1.14[43] million)

8.   The objective of this component is to build the institutional and operational capacity of the DGFAP and ANPN to implement the NIAP. In so doing, this component will develop the tools needed to improve the surveillance of national parks and the effectiveness of strategies to stop wildlife poaching, ivory trafficking, and related corruption. To that end, capacity will be built for the management of data and information relating to elephant populations, HEC, and wildlife-related criminality (particularly, ivory trafficking). Capacity to implement wildlife laws and regulations will be strengthened through the provision of expert training in investigative techniques and policing procedures for wildlife crime case development and prosecution.

9.   This component is divided into three sub-components.

Sub-component 1.1: Developing elephant database (US$0.22 million)

10.   This sub-component will develop a centrally located and accessible management information system (MIS) for natural resources. This national database will consolidate existing but disparate data, and ensure its continuous monitoring and update with current data and information.

11.   ***Output 1.1.1 National natural resource database (US$0.12 million).*** The MIS will provide the infrastructure for all natural resource data, but within the context of this project, the data prioritized for collection and update will be those related to elephants, particularly:
   i.   elephant populations – numbers, density, mortality, genetics, and seasonal movements;
   ii.   criminality – poachers, middlemen, and IWT networks from Africa-to-Asia; regional and international ivory seizures and prosecutions; poaching prevention efforts and the role of local communities in that prevention;
   iii.   HEC – prevalence, impacts, and effectiveness of mitigation measures undertaken and tested.

12.   Activities will include assistance to ANPN and DGFAP in collecting existing data and creation of an MIS that accommodates both quantitative and qualitative data, and ensures its quality and integration into a centralized databank to be located at ANPN. Using a metadata catalogue, the MIS will allow users

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[43] This represents, US$1,142,046.

appropriate access to consult natural resource-related data. Data manipulation, update, monitoring, and evaluation will be the responsibility of ANPN. Sensitive data to inform intelligence such as ivory trafficking criminal networks will be highly protected, as is currently the case at ANPN.

13.   *Output 1.1.2 National HEC database (US$0.10 million).* Complementary to the national database, an HEC database will be developed. HEC data and information output from component 2.2 will be systematically collected for evaluation and analysis. Hence, technical assistance will be provided to: (i) develop a data reporting methodology; (ii) create the national HEC database; (iii) train an HEC database manager; (iv) train HEC field teams in using the data collection methodology; and (v) put in place centralized mechanisms to analyze HEC data at both national and regional levels in terms of area and population affected, gender-specific impacts of HEC, economic losses, etc.

Sub-component 1.2: Strengthen implementation of wildlife protection laws (US$0.59million)

14.   The goal of this sub-component is to increase the capacity of Gabon to implement wildlife laws and regulations. Supported by a World Bank technical assistance project, the Forestry Code – which contains the wildlife protection provisions – is currently under revision. The Ministry in charge of Forests is working towards its finalization and adoption, as it will contain a strengthened legal framework for wildlife protection that respects the provisions of CITES. With respect to this goal, this sub-component will strengthen the capacity of key authorities implicated in wildlife protection to police, investigate, and prosecute wildlife crime.

15.   CITES recommends that countries undertake genetic analysis of seized ivory to determine its provenance. The results of such analyses inform regional police intelligence networks, and can be used as evidence in the development of credible cases for prosecution. Activities under objective 1.2.1 will build on work led by ANPN to develop a genetic method to trace the sources of ivory seized in Gabon; a method that allows greater geographical precision than existing methods currently used across Africa. In some cases, this method achieves traceability to the original carcass. The genetic fingerprint afforded by ivory sampling and analysis is also a permanent marking system that will improve the national management of seized ivory.

16.   *Output 1.2.1 Strengthened capacity to determine the provenance of ivory (US$0.32 million).* The project will enhance the capacity of an existing genetic laboratory located at the tropical ecological research institute *(IRET: Institut de Recherche en Ecologie Tropicale)* through provision of laboratory equipment to undertake genetic analyses of ivory. Currently an international elephant genetics expert paid by ANPN is working at IRET with the support of a national scientist. This expert will train national lab assistants for knowledge transfer so that local capacity and responsibility will be created for sustainability of research and results. The project will also examine with IRET the feasibility of developing specific genetic analysis modules to include them in relevant science degree curricula.

17.   Other activities will contribute to the development of a network of laboratories – expert in ivory genetic analysis – in countries on both the supply and demand side of the ivory trade. Data exchanges will be facilitated by the genetic method being developed by ANPN, which is reproducible in any laboratory. Discussions on collaboration have already been initiated with laboratories in Southeast Asia, Kenya, and

Botswana. At the regional level, the development of a forensic network for wildlife is being planned between Gabon and Botswana, as part of a project supported by UNODC.

18.   ***Output 1.2.2 Strengthened law enforcement efforts in the national parks (US$0.27 million).*** Expert training will be provided for increased capacity in forensics and wildlife crime investigation. UNODC professionals will deliver training sessions to park wardens, park eco-guards, and police involved in environmental law enforcement. The training will build skills in securing the crime scene for evidence collection, information handling and investigation, appropriate interrogation, conducting investigations, techniques for developing and using intelligence, preparing well-documented cases for successful prosecution, and monitoring and providing support to court proceedings. The "Elephant Crime Intelligence System Assessment", commissioned by the World Bank, provides a good resource for understanding best practices for information handling and intelligence development. This document will be shared with the UNODC trainers.

19.   Training in Deoxyribo Nucleic Acid (DNA) sampling to trace ivory provenance will complement the activities under Output 1.2.1 that operationalize a laboratory specialized in ivory genetics.

20.   To strengthen judiciary capacity to prosecute wildlife crime, UNODC will deliver specific training for the judiciary (prosecutors and investigating judges) covering topics including environmental laws and regulations, wildlife crime information, investigation techniques, forensic intelligence, etc. Local magistrates training under the project will be part of the broader effort towards their specialization in the application of environmental law, which has been undertaken in Gabon, including the possible creation of a corps of specialized judges in environmental law, which is currently being studied with the help of the AFD Project "Eléphant Gabon".

Sub-component 1.3: Education, information and communication (US$0.34 million)

21.   As noted within the Gabon NIAP, communication and awareness can play a decisive role in the fight against poaching and ivory trafficking. A communication strategy is to be developed under the AFD Project Eléphant Gabon. To avoid duplication of effort, education, information and communication activities under this GEF-financed project will be coordinated with those of Project Eléphant. Those activities will target preferentially the four priority sites to raise awareness about the illegal trade in wildlife, its impacts, Government initiatives underway to stop it, and positive actions that ordinary citizens can do to help stop it. As part of the prevention efforts, a specific communication program targeting school children will also be developed.

Component 2: Support for integrated landscape management and mitigation of human-elephant conflicts (GEF US$5.88 million)

22.   The objective of this component is to support implementation of park management plans, which include HEC management activities. The component contains interventions to enhance park surveillance and sustain or re-establish elephant habitat connectivity (corridors) at the landscape level – with the support of local communities and other stakeholders. Habitat connectivity contributes to elephant conservation, improves protected area resilience and sustainability by reducing pressures on biodiversity, and helps to reduce HEC through providing data for land use planning for locating future human

settlements. Wildlife corridors facilitate wildlife migration and adaptation to changing circumstances, such as climate change or changes in predator behavior. In the case of elephants, the predators are poachers, and elephants tend to migrate away from where they are being killed. Securing corridors for elephant passage can reduce HEC by preventing elephant migration outside and human settlement inside those corridors. Engaging all stakeholders (local communities, wildlife protection authorities, economic operators) in an integrated landscape approach to protected area management can thus improve strategic planning for wildlife management.

23.   The component will be implemented through two sub-components: (i) protecting areas and wildlife management; and (ii) human-elephant conflicts (HEC) mitigation efforts.

 Sub-component 2.1: Protected areas and wildlife management (US$4.88 million)

24.   This sub-component aims to: (i) strengthen parks surveillance capacity; (ii) identify and map out the existing elephant routes between the national parks of Loango, Moukalaba-Doudou, Mayumba and Waka, as well as cross-border Gabon-Congo animal corridors, in order to identify the areas in which human settlements should be discouraged and thereby prevent future HEC; (iii) strengthen the capacity of Local Management Consultative Committees *(Comités Consultatifs de Gestion Locale* - CCGLs) to better participate in the management of the target parks; and (iv) support local communities by enhancing livelihood opportunities, thereby reducing human pressure on the parks*.*

25.   *Output 2.1.1 Strengthened ANPN surveillance capacity (US$3.48 million).* In the target parks and their peripheries, the project will increase the numbers of trained and equipped patrols in all the target zones, improve the base camp in Waka NP and rehabilitate access roads to the Moukalaba-Doudou NP and Waka NP. The human and physical resources provided by the project are those that are prioritized in ANPN park management plans.

26.   Forty-five eco-guards will be recruited to reinforce the patrols in the four parks. Supported by the project, the training of these new recruits will be provided by international experts including UNODC. Through previous initiatives, UNODC and INTERPOL experts have provided training to police and eco-guards in Gabon. Under this project, on-site training will be delivered to the new recruits. To ensure that the training leads to sustainable improvement in surveillance capacity, training sessions will be repeated to reinforce skills and highlight particular themes.

27.   The strengthening of ANPN capacity will also include rehabilitation and equipment of surveillance and base camp, transportation equipment, eco-guards equipment, and the clearing of access roads interrupted by rain gullies and/or fallen trees. This concerns two routes of 40 and 150 kilometers respectively, to access Moukalaba-Doudou NP and Waka NP.

28.   *Output 2.1.2 Identification of elephant corridors (US$0.60 million).* Two studies currently underway will help to obtain this output: The Genetic Structure of Forest Elephants in Gabon (ANPN study supported by the EU 2014-2015); and the Identification of Potential Animal Corridors between the National Parks (collaborative study of ANPN and Panthera).[44] The first study uses genetic information to predict

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[44] For ANPN/Panthera collaborative study, the National parks Ivindo and Mwagna are finished; Moukalaba-Doudou and Waka will be surveyed next.

likely elephant movement; the second uses camera-traps. The different approaches used in these two studies to determine animal movements are complementary and will be combined to identify elephant corridors.

29.   Once the elephant corridors are identified, a management plan for their protection will be developed by ANPN/DGFAP to inform the national land use plan *(Plan National d'Affectation des Terres, PNAT)* that is being prepared by the national climate change committee *(Conseil National Climat)*. Provisions for the protection of wildlife corridors are included in the latest draft of the new Forestry Code, which is expected to be approved by Gabonese Parliament in 2017.

30.   Information about the seasonal distribution of elephants is an effective way to plan anti-poaching and HEC mitigation activities. Preliminary information on seasonal distribution patterns is available for the Loango national park and the Gamba corridor; it will be supplemented with more information as a result of research work under this sub-component.

31.   The project will also provide technical assistance to map cross-border elephant corridors (Congo-Gabon), and improve and augment through research activities, scientific information on elephant behavior and distribution in this region, and develop an action plan that can be operationalized by both countries to protect animal corridors crossing the Gabon-Congo border between the Mayumba NP (Gabon) and the Coukouati NP (Congo) (see Component 3 below).

32.   It is expected that corridor identification and mapping will take up to two years following which ANPN and DGFAP will undertake the development of the management plans that will be an output of this component. ANPN will raise funding for the implementation of the corridor management plans, which is outside the scope of this project.

33.   ***Output 2.1.3 Strengthened capacity of CCGLs to co-manage local resources. (US$0.30 million).*** The CCGL is the Local Management Consultative Committee – the governance structure at the community level. The CCGLs of communities in the target zones are of mixed capacity to manage the natural resources within their purview. Through training and information sessions delivered locally to CCGLs, ANPN and DGFAP will: (i) strengthen management capacity; (ii) raise awareness as to the rationale and objectives for conservation; and (iii) raise awareness as to the rights and obligations of local communities in natural resource management. This will enable community representatives to – in turn – inform and guide their community members in natural resource management. Building capacity within local community governance structures (i.e., within the CCGLs) will provide a means for national and provincial governments to diffuse environmental information (law, regulations, sustainable uses, etc.) and eventually mainstream a conservation ethic.

34.   Strengthening CCGL capacity will be achieved by enabling the operations of CCGL offices through provision of equipment, supplies, training; and support for regular (bi-annual) meetings. Training activities will take the approach of "training of trainers": ANPN/DGFAP agents will be trained to deliver training to CCGL and related local organizations.

35.   ***Output 2.1.4 Support to local communities for enhancing livelihoods and improved access to basic needs in order to reduce human pressure on the target parks (US$0.50 million).***

36.   The main income-generating activity of villagers around the targeted parks is agriculture. Due to the lack and poor condition of roads, these farmers – who are mostly women – have little access to larger towns and markets and the increased income and opportunities such access can afford. Furthermore, during the dry season, some villages adjacent to the target NPs, particularly around Waka, depend on rivers within the park to meet their water needs because village water sources are in disrepair. These incursions into the park can lead to wildlife encounters, thereby exacerbating human-wildlife conflict. In the medium to long term, the "landlocked" situation of the villages, coupled with lack of water during the dry season, may also threaten park integrity.

37.   The rehabilitation of access roads for enhanced parks patrolling will also benefit communities by increasing access to markets and improving the flow of goods (crops) as well as making goods and services in larger markets more accessible. The project will also supply a barge for river crossing, which will benefit local villages by, again, improving local movement and reducing isolation. Women will directly benefit from better access to local markets to sell their produce, as they are predominantly involved in farming and cash crop production. They are also likely to take advantage of better access to urban services, such as health and family services, which will become more accessible due to faster and more economical transportation. The project will work with communities to improve safe access to potable water through, for example, the provision of equipment such as new water pumps, water hoses, and water containers. Water pumps in particular will significantly benefit women because fetching water is usually their task.

Sub-component 2.2: Human-elephant conflicts (HEC) mitigation efforts (US$1 million)

38.   The purpose of this sub-component is to bring sustained support to HEC mitigation in rural communities wherein techniques of HEC mitigation are tested and evaluated for their effectiveness. This sub-component will benefit local communities with a fairly large emphasis on women who are primarily responsible for agricultural production in the targeted areas and are therefore most affected by HEC.

39.   In designing the project, experiences with HEC mitigation techniques in South Asia and East Africa were reviewed for possible replication in Gabon. Communities in all four national park zones were also visited and consulted about their experiences with HEC mitigation. The results of these consultations showed that HEC mitigation techniques typically used elsewhere and in Gabon include chili cartridges, firecrackers, gas lamps, scarecrows, noise, different types of fences, farmers' sensitization on elephant behavior and all-night surveillance. These measures have proven to be ineffective when implemented alone. However, combinations of several of them in the right way, including the use of fences together with community rangers for all night surveillance, have been successful so far in some countries in east Africa (e.g., Kenya). Building upon this positive experience, the national action plan for HEC, and the FAO toolkit, the project will test new proposed measures that include grouping farmed plots together behind a common barrier, supplemented by improved warning and noise-making devices, and 24-hour surveillance by community rangers.

40.   These measures will be undertaken in local communities in the target zones and monitored for their effectiveness. An HEC monitoring protocol (to be developed in sub-component 1.1) will provide information to evaluate the relative success of the different mitigation measures corrective actions. HEC

data and information collected as a result of the HEC experience will feed back the dedicated national HEC database under sub-component 1.1.

Component 3: Transboundary parks co-management (Mayumba-Conkouati) (Gabon-Congo) (GEF US$1.20 million).

41.   This component will enhance the co-management of the transboundary areas of the Mayumba National Park (Gabon) and Conkouati National Park (Congo) for better surveillance of elephant movements across the Gabon and Congo border. Activities under this component will enhance Gabonese patrols and rehabilitate surveillance outposts on the Gabon side of the border; and facilitate information exchange and mixed patrols across the border.

Sub-Component 3.1 Operationalize the Mayumba-Conkouati cooperation agreement (US$0.20 million)

42.   In 2010, the Governments of Gabon and Congo signed a cooperation agreement for the Mayumba-Conkouati transboundary parks. This component will operationalize that agreement by initiating cooperation for the management of the protected areas on both sides of the border. To that end, activities under this sub-component involve establishing regular cross-border meetings between ANPN/DGFAP agents responsible for Mayumba NP, and their Congolese counterparts responsible for Conkouati NP. The goal of the meetings is to implement a cooperation protocol for sharing information and intelligence on IWT activities, and for conducting joint patrols. Meetings are anticipated to occur quarterly, with each country hosting two meetings per year. A special kick-off meeting hosted in Gabon will be held at the start of the project to operationalize the agreement with a cooperation protocol. Under this sub-component, the project will support the Mayumba-Conkouati meetings.

Sub-Component 3.2 Strengthen transboundary parks surveillance effort (US$1 million)

43.   This sub-component will reinforce the surveillance of the Gabon southwestern border zone that includes the Mayumba NP and its periphery, extending beyond the park buffer zone to the Congo border (Conkouati NP). The above-referenced agreement between the two countries allows for anti-poaching activities, scientific research, ecological monitoring, ecotourism, but the specific protocols to realize the respective activities have not been operationalized. This sub-component will therefore develop a protocol for anti-poaching activities. The project will finance patrol efforts on the Gabon side of the border though provision of vehicles, operating costs of mobile patrol brigade, and the construction of park and surveillance post. Similar activities on the Congo side are on-going and supported by the Wildlife Conservation Society (WCS).

Component 4: Project coordination, monitoring and evaluation (GEF US$0.84million)

44.   This component supports the overall daily administration of the project. A project coordinator is needed to synergize the activities of this project and those of similar and complementary projects underway or soon to be underway within ANPN.

45.   Similar to this GEF project, the AFD Project "Eléphant Gabon" contains anti-poaching and HEC

mitigation activities. It includes capacity building activities at the national level, and it targets national parks and their peripheries in the northeast (Minkébé, Mwagna, and Ivindo). An EU project will target Lopé NP. WWF-Gabon is working in Loango and Moukalaba Doudou NPs – the same zones targeted by this project; and the United States Fish and Wildlife Service (USFWS) supports various Government capacity building and environmental management activities at the national and local levels. Given the complementarity of these projects, a dedicated project coordinator can ensure effective coordination of their various activities thereby maximizing synergies and avoiding duplication. Since protected areas (PAs) management is the responsibility of ANPN, and since the other complementary PA projects are managed by ANPN, a designated project coordinator will be appointed by and situated within ANPN. DGFAP will designate a deputy coordinator for the project who will work hand in hand with the ANPN coordinator.

46.   Project administration ensures that regular monitoring and evaluation (M&E) is carried out and that results are fed back into decision making on project implementation. Within ANPN, the technical unit responsible for administering wildlife and biodiversity projects financed by Government and development partners will be responsible for the administration of this project. The capacity of this unit will be enhanced with the dedicated project coordinator and supported by the ANPN fiduciary unit composed of a Senior Financial Management Specialist, a Procurement Assistant, and an M&E Specialist. A procurement assistant will be recruited. Wildlife, biodiversity, forensic and HEC specialists will also be recruited as short-term consultants to support implementation of the project technical components. Depending on the needs, additional resource persons may be trained to support the project. Furthermore, a protocol will be established between ANPN and DGFAP for anti-poaching activities on project sites, through joint patrols and surveillance, and for addressing HEC issues.