



Sustainability
Report
2022

Responsible Forestry

Tracking impact over time

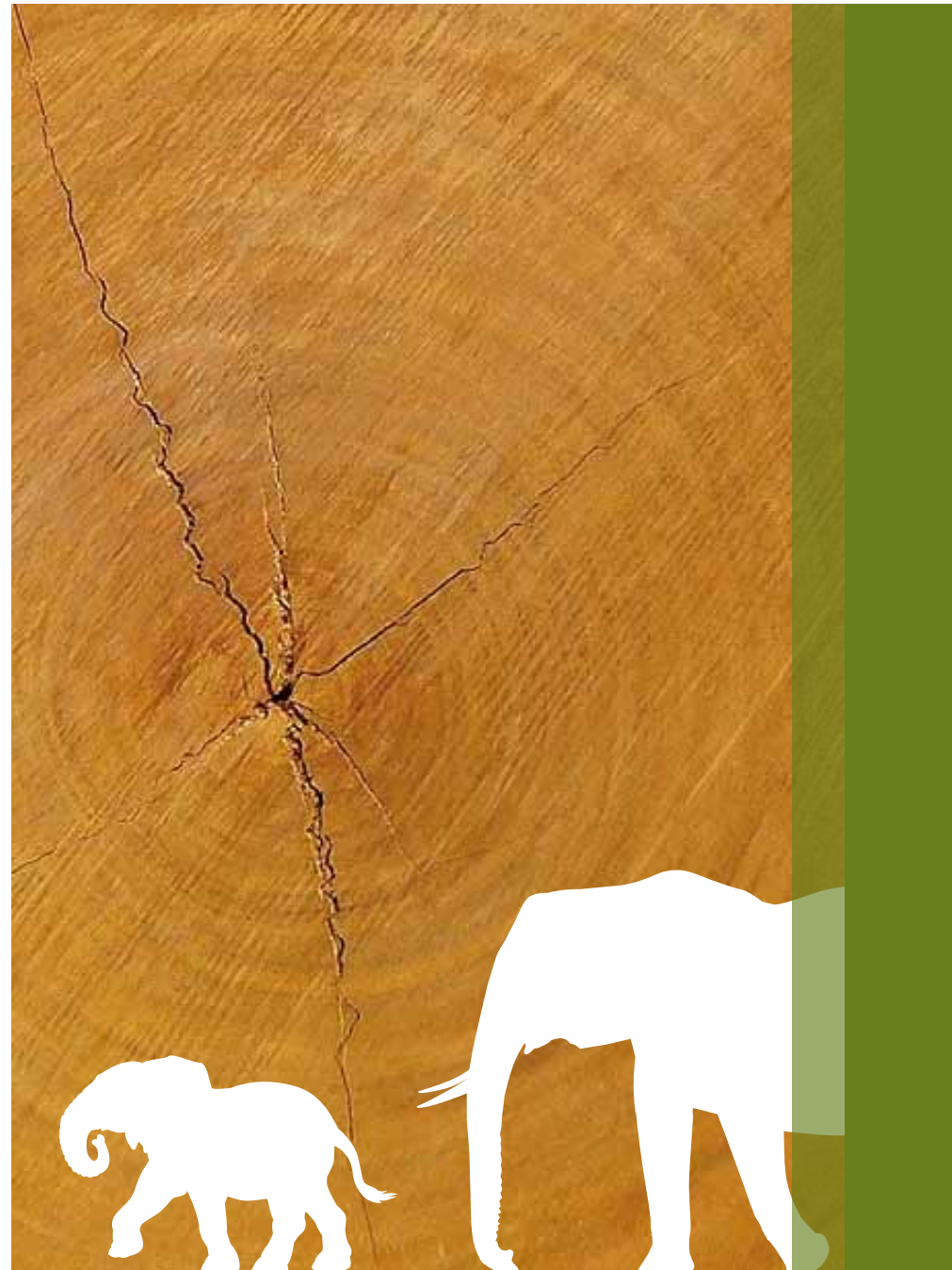
Strong governance is fundamental to building a resilient and successful organisation in which sustainability is embedded at all levels. Robust policies, standards and management systems guide our operations to address risks and opportunities and enable us to measure our performance and meet our commitments to the African forest.

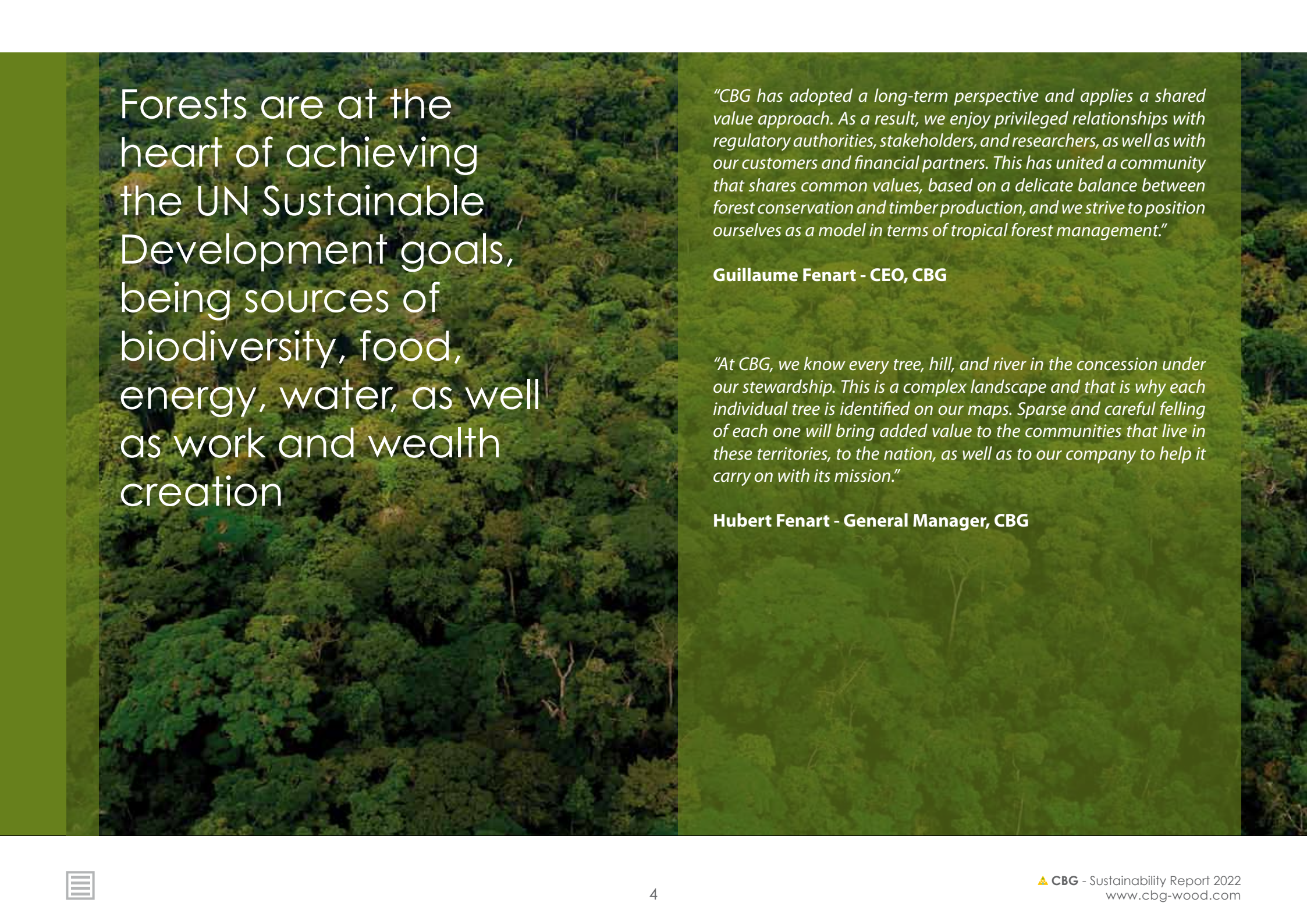
This report is a summary of our journey. We are committed to reporting on our environmental, social and governance compliance and will use this 2022 report to track our impact over time.



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Forests are at the heart of achieving the UN Sustainable Development goals, being sources of biodiversity, food, energy, water, as well as work and wealth creation

"CBG has adopted a long-term perspective and applies a shared value approach. As a result, we enjoy privileged relationships with regulatory authorities, stakeholders, and researchers, as well as with our customers and financial partners. This has united a community that shares common values, based on a delicate balance between forest conservation and timber production, and we strive to position ourselves as a model in terms of tropical forest management."

Guillaume Fenart - CEO, CBG

"At CBG, we know every tree, hill, and river in the concession under our stewardship. This is a complex landscape and that is why each individual tree is identified on our maps. Sparse and careful felling of each one will bring added value to the communities that live in these territories, to the nation, as well as to our company to help it carry on with its mission."

Hubert Fenart - General Manager, CBG

CBG is committed to help achieve the UN Sustainable Goals

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	SUSTAINABLE DEVELOPMENT GOALS 



Who we are

Compagnie des Bois du Gabon (CBG), a vertically integrated natural forest company with a proud tradition of responsible forest management, has been operating in Gabon since 1980.

CBG annually harvests approximately 164 000 m³ of Forest Stewardship Council® (FSC®) certified tropical hardwood timber from the Mandji forest concession (CFAD - Concession forestière sous aménagement durable)¹ – in the heart of Gabon. Value is added as timber is processed through two processing plants in Port Gentil, the CBG sawmill and the CPBG rotary peeling plant.

Timbers of CBG	Azobé, Gombé, Bilinga, Niové, Ebiara, Padouk, Ovangkol etc.
Products of CBG	Sawn solid wood (boards, sleepers, beams), planed wood (decking and pickets)
Timbers of CPBG	Okoumé and Igaganga
Products of CPBG	Peeled veneer for Plywood
People employed 2022	<ul style="list-style-type: none"> • 532 – CBG Admin / Forest • 127 – CGB sawmill • 125 – CPBG sawmill
Coordinates (WSG 84) of our sites and Forest Management Units (FMUs)	<ul style="list-style-type: none"> • FMU Mandji (mean Coordinates): 10.51363 Longitude, -2.01953 Latitude • FMU Rabi (mean Coordinates): 10.07418 Longitude, -1.78688 Latitude • FMU Kivoro (mean Coordinates): 9.95785 Longitude, -2.12662 Latitude • CBG headquarters (Port Gentil) (8.76860 Longitude, -0.69950 Latitude) • CBG Saw-mill (8.77630 Longitude, -0.70330 Latitude) • CPBG (8.75660 Longitude, -0.72780 Latitude)

The objective of CBG is the sustainable exploitation of forest resources to ensure a long-term supply of quality timber with harvest volumes not exceeding the forest’s potential, depending on its capacity to grow and renew itself. The choice of rotation period is guided by the following objectives:

1. Respect of national law and international guidelines
2. Guarantee sufficient time for forest recovery (full replenishment rates)
3. Maintain economically viable production levels
4. Harmonize the first rotation period for all three the forest management units to the end in 2032.

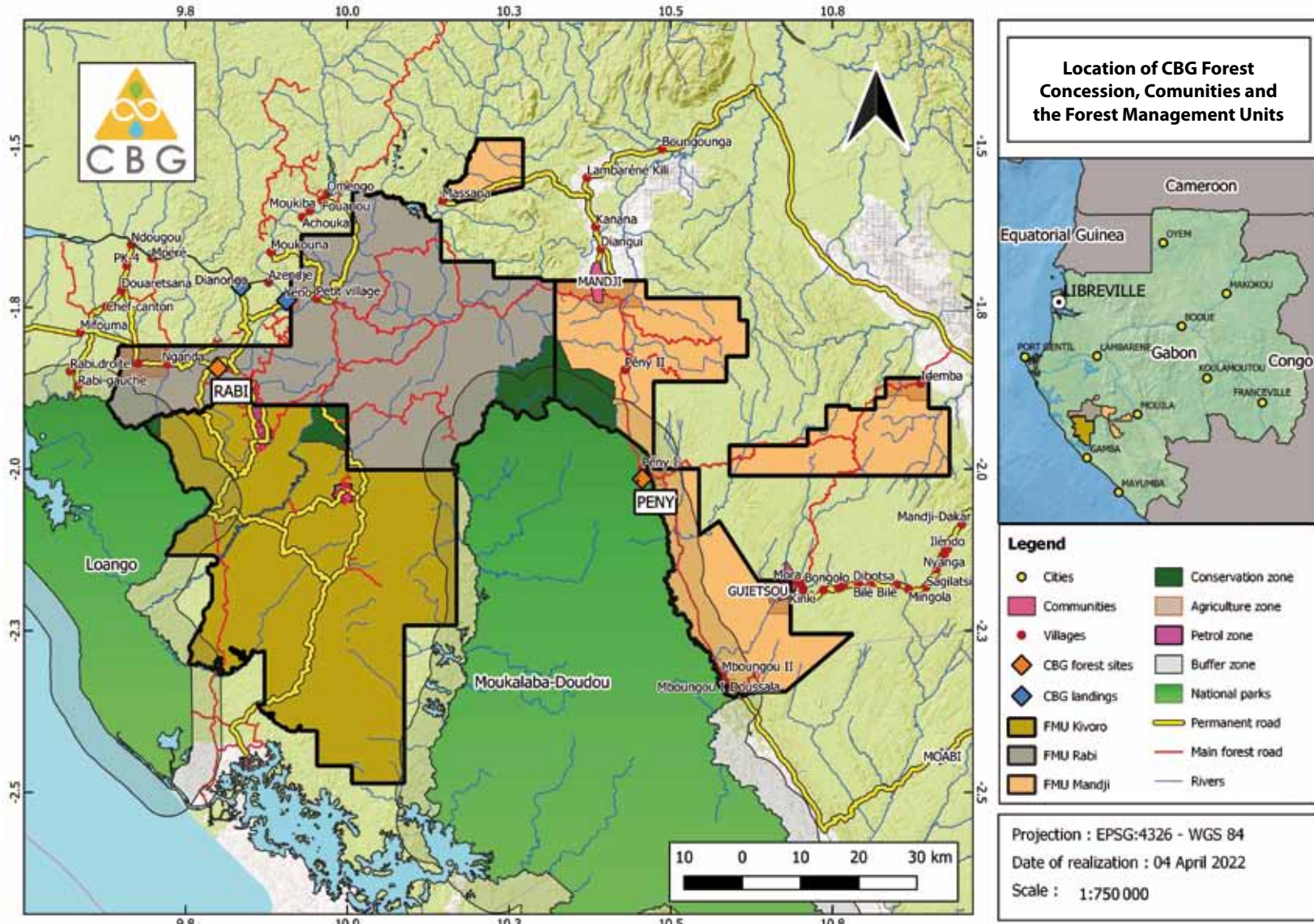
CBG has been Forest Stewardship Council® (FSC®) 100% certified by Bureau Veritas since 2009. Certification is a tool for daily management and is built into the DNA of the Company and all its staff. FSC® (www.fsc.org), provides an efficient way for verifying management against its standards through an internationally recognised certification system. Faced with climate issues and an increase in global demand for timber, FSC® offers a credible long-term response to conserving the environment, increasing people’s well-being, and meeting the growing needs of the timber industry.

1 - The average volume of wood produced (volume removed from the forest) per CBG over the last 3 years (2020-2022) is 164,733 m³.



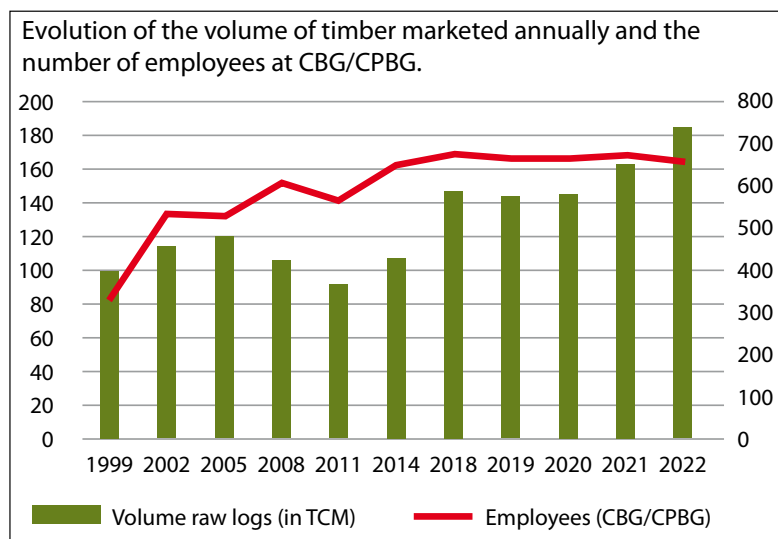
The Mandji forest concession

CBG has been awarded the Mandji forest concession, with a total administrative area of 568543 ha. The three Forest Management units (FMU), Mandji (166,400 ha), Rabi (185,700 ha) and Kivoro (216,443 ha) straddle the provinces of Ogooué-Maritime, Ngounié and Nyanga.



CBG timber production

CBG produces a variety of hard and softwood timber within its FMUs which are processed within the different industries.



Timber production (m3) per FMU and for entire concession						
UFA	2018	2019	2020	2021	2022	Average
Rabi	42 600	41 100	36 000	38 800	45 500	40 800
Mandji	60 700	60 000	71 300	72 800	76 200	68 200
Kivoro	44 000	43 600	39 100	51 400	62 900	48 200
Total	147 400	144 800	146 400	163 100	184 700	157 300

Further information on exploitation are shown on pages 26-27

CBG has continued its efforts with buyers to promote a greater diversity of species, as it does for different Gombé species (*Didelotia* spp.). Diversification of use will take pressure off some of the commonly known species and will allow for more uniformed use of tree species

Production per year	2018	2019	2020	2021	2022
Didelotia spp. (m3)	27 581	18 849	28 064	23 736	37 464

Industrial production capacity

CBG acquired its first processing unit, a sawmill, in 1995. In 2001, CBG invested in partnership with the French manufacturer Joubert in a modern peeling plant, CPBG (Compagnie des Placages en Bois du Gabon). All logs from the CBG forest concession are sent to these two processing plants and a few other private clients via water barge landed at the Bon Abri landing stage, close to the CBG sawmill.



- Annual average consumption: 76 560 m³
- Annual average production: 27,300 m³ (yield 36%).
- CBG sawmill only processes logs from the CBG forest concession (100 % FSC) with no external input.

Sawmill CBG (m ³)			
Year	Consumption	Production	Yield
2018	73 300	28 200	38%
2019	68 300	23 900	35%
2020	80 200	27 200	34%
2021	82 200	29 300	36%
2022	81 100	28 400	35%
Average	77 000	27 400	36%



- Mainly Okoumé veneer and from 2020 a small amount of Igaganga utilized.
- Average annual consumption: 54,180 m³
- Average veneer produced: 34,340 m³ (yield 63%)
- The supply of logs entirely assured from the CBG forest concession (100 % FSC) since the end of 2017.

Veneer plant CPBG (m ³)			
Year	Consumption	Production	Yield
2018	51 600	33 300	65%
2019	50 500	32 400	64%
2020	54 600	33 900	62%
2021	59 600	36 500	61%
2022	54 600	35 600	65%
Average	54 200	34 300	63%



Our management teams

Environmental management and social responsibility are the priority of all company employees. Procedures and standards of the company are overseen by senior management which include a Human Resources, Forest Resources, Development and Sustainable Management and Financial Manager. Sustainability, Forest management and FSC certification are coordinated at Port Gentil by the Director of Forest Resources and Sustainability (Mr. Jan Kasper). Operational activities (exploitation) within the FMUs are planned and supervised by the forest management team on site (General Director Hubert Fenart and the Directors of the sites Rabi and Peny).

Our partners



Panthera: founded in 2006. Devoted exclusively to preserving wild cats and their critical role in the world's ecosystems. Panthera's team of leading biologists, law enforcement experts and advocates develop innovative strategies based on the best available science to protect cheetahs, jaguars, leopards, lions, pumas, snow leopards, and tigers, and their vast landscapes. Panthera works in 36 countries around the world, with a wide variety of stakeholders to reduce or eliminate the most pressing threats. Visit <https://panthera.org>



WWF: A unique example of collaboration on protection of large mammals in an area of 568543 ha (PROLAB). Within the framework of a national action plan for the protection of fauna, a convention for tripartite collaboration was signed in 2008 and renewed in 2015 between The Ministry of Water and Forests, the World Wildlife Fund (WWF) and CBG. This privat public partnership has the mission to protect large mammals (elephant, gorilla, chimpanzee, panther, buffalo, antelope) in and around the CBG concession within the Gamba complex. The activities carried out within the partnership include sensitizing nearby populations, hunting supervision and an assessment of the situation on the spot. Visit www.wwfgabon.org



Smithsonian Conservation
Biology Institute

Smithsonian Conservation biology institute. A 600 ha protected area for scientific research. International researchers study the evolution of flora, fauna and the environment in CBG concessions. A 25-hectare forest plot, protected by a 600-hectare buffer zone, enables them to detect changes affecting the forest on a worldwide scale. The collaboration between the Smithsonian Biology and Conservation Institute and CBG enables the latter to be permanently informed of scientific results emanating from studies on biodiversity carried out in its concession. Visit www.si.edu/unit/conservation-biology-institute



Forests Forward. CBG is a member of Forests Forward. WWF's new "Forests Forward" platform aims to improve the management of 150 million hectares of forest by 2030, providing opportunities to create meaningful impact in landscapes and facilitating reporting on these impacts. It has a strong emphasis on indigenous people and local communities, which play a critical role in forest conservation with local models of governance that can help protect forests, often better than many other forms of forest stewardship. Visit www.worldwildlife.org/initiatives/forests-forward

Our commitments, policies and procedures

The CBG code of good conduct includes commitments to occupational health and safety, respect for human rights, gender equality, rejecting harassment in all forms, compliance with laws, the rejection of all types of corruption, confidentiality and insider crime prevention, use of computer and communication resources and conflict of interest (see www.cbg-wood.com/en-gb/value-mission-vision-commitments).

This document is acknowledged and signed by all employees of CBG/CPBG.

CBG adheres to all legislated requirements and has an up-to-date Environmental and Social Impact Assessment report and an Environmental and Social Management Plan in place.

Our company policies (see www.cbg-wood.com/en-gb/value-mission-vision-commitments) comply with health and safety and environmental legislation, while at the same time respecting the requirements of the International Labour Organisation (ILO) and committing to responsible forestry practices. All operating procedures are detailed in CBG's internal documents and are drafted based on legal requirements, Reduced Impact Logging (RIL) standards and FSC standards. They also include information on measures to minimize impact to environment and on people.

Audit verification processes

FSC® certified since 2009, external third-party audits are conducted annually for both the FSC Forest Management (FM) and FSC Chain of Custody (CoC) certificates. The total Mandji concession (609,523 ha) is FSC FM certified and both CBG Sawmill and CPBG are FSC CoC certified. CBG may also consider other certifications such as PEFC Congo Basin certification in the future.



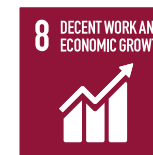
The mark of responsible forestry

FSC finding	CBG - FSC Forest Management					Sawmill CBG - CoC FSC 100%					CPBG - CoC FSC 100%				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Minor non-compliance	13	9	7	7	3	1	3	0	1	1	2	1	0	1	0
Major non-compliance	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
Result/ FSC Certificate	Certification (FSC: BV-COC-639590)					Certification (FSC: BV-COC-639590)					Certification (FSC: BV-COC-032146)				



Supporting the Gabon economy

Employment – the improvement of living conditions – the financing of community development
- payment of taxes – sustainable use of forest resources – industrial development



Support to the economy from salaries, taxes and procurement 2018 – 2022 (CBG+CPBG)					
	2018	2019	2020	2021	2022
Gross Salaries paid (Mio)	\$9,32	\$9,28	\$9,78	\$8,65	\$10,38
Average Salary paid (annual)	\$11 900	\$11 800	\$11 900	\$11 400	\$11 800
Total Taxes paid (Mio)	\$2,68	\$3,02	\$2,98	\$3,14	\$3,65
No of Local suppliers (SME)	138	180	123	125	131
Procurement SMEs (Mio)	\$4,65	\$4,66	\$4,99	\$6,69	\$5,04
FCFA : USD Exchange Rate	573,1	584,9	534,8	575,5	610,8

The table provides a low range estimate of revenues for the state and local economies.

With equal qualifications, CBG gives priority to employing local workers from the region. CBG uses workers from other regions or countries only if competent personnel are not available locally. Less than 2% of the workforce is currently paid the sector's minimum wage, with the company's average wage being 4 times higher.



CBG Employment numbers																				
	CBG Admin and Forest					CBG sawmill					CPBG veneer plant					Total CBG/CPBG				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Total	489	506	509	529	532	178	156	146	142	127	115	123	124	141	125	782	785	779	812	784
National	423	442	447	466	464	162	139	130	127	112	107	113	114	130	113	692	694	691	723	689
Expatriate	66	64	62	63	68	16	17	16	15	15	8	10	10	11	12	90	91	88	89	95



Valuing safety, health and wellbeing

CBG commits to comply with all legislation in terms of workers' rights: labor code, international conventions ratified by Gabon and collective agreements. Freedom of association and right to organize is recognized at CBG and staff representatives are elected in each area of operation. During 2022, 6 Labor Stewards Committee meetings were held at forest sites, 17 at the CBG processing sites (CBG admin + sawmill) and 7 at CPBG.

Ongoing efforts to improve the safety culture and systems at CBG have been underway in a stepped-up approach since 2015. The company has seen a significant improvement in the Disabling Injury Frequency Rate (DIFR) rating from 4.0 in 2020 to 1.7 for forests in 2022. CBG has employed additional health and safety management staff during this period, including employing a Group Health, Safety and Environment Manager in July 2021. In the past two years the focus has been on improving health and safety in the forest and at the processing plants. All accidents and incidents are investigated by trained staff to identify key contributing factors. Mitigation measures are developed to ensure that significant accidents do not occur in future.

Actions in place:

- Job specific training and provision of protective equipment
- Health, safety, and environment procedures manual
- Health, Safety and Environment manager in CBG's base and HSE officers at the processing plants and forest sites
- Regular Toolbox meetings and trainings
- Work Health and Safety Committee (4 meetings annually)
- Labor Stewards' Committees (Workers' Rights)

Sector	2020			2021			2022		
	DIFR	Major Accident (> 3days)	Deaths	DIFR	Major Accident (> 3days)	Deaths	DIFR	Major Accident (> 3days)	Deaths
CPBG	0,7	1	0	0,6	1	0	1,4	2	0
FOREST	4,0	11	0	2,1	7	0	1,7	6	0
SAWMILL	2,5	6	0	1,2	4	0	2,0	3	0
Total	2,4	23	0	1,3	16	1	1,7	17	0

Actions	Forest Operations			CBG Sawmill			CPBG		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Toolbox talks (occupational health and safety awareness)	125	148	204	128	150	500	890	728	798
Organised Safety Tours	4	0	12	4	4	16	3	3	4



Training and career path enhancement

The main objective of training is to ensure and increase safety. A training plan for each occupation and sector has been developed and is followed. Training is mainly carried out internally within the company or, where appropriate, provided by professional trainers.

Internal awareness raising in 2022			
Topic	Forest Sites	POG (CBG/CPBG)	Total
Gender based violence	4	24	28
Code of Conduct	9	20	29

CBG and CPBG trainings in 2022			
Subject	Forest	POG (CBG/CPBG)	Total
STIHL maintenance	0	7	7
Human resource management	0	1	1
Electricity and Mechanics	0	3	3
RIO (software)	0	15	15
Controlled felling	39	0	39
Defensive driving	23	0	23
Fire fighting	38	13	51
First aid	35	21	56
Gender based violence	1	6	7
Skidding	1	0	1
Total	137	66	203



Empowering women, addressing gender based violence and discrimination

CBG policy supports the inclusion of women in all forestry activities by providing access to resources, technology, financial resources, training, and information.

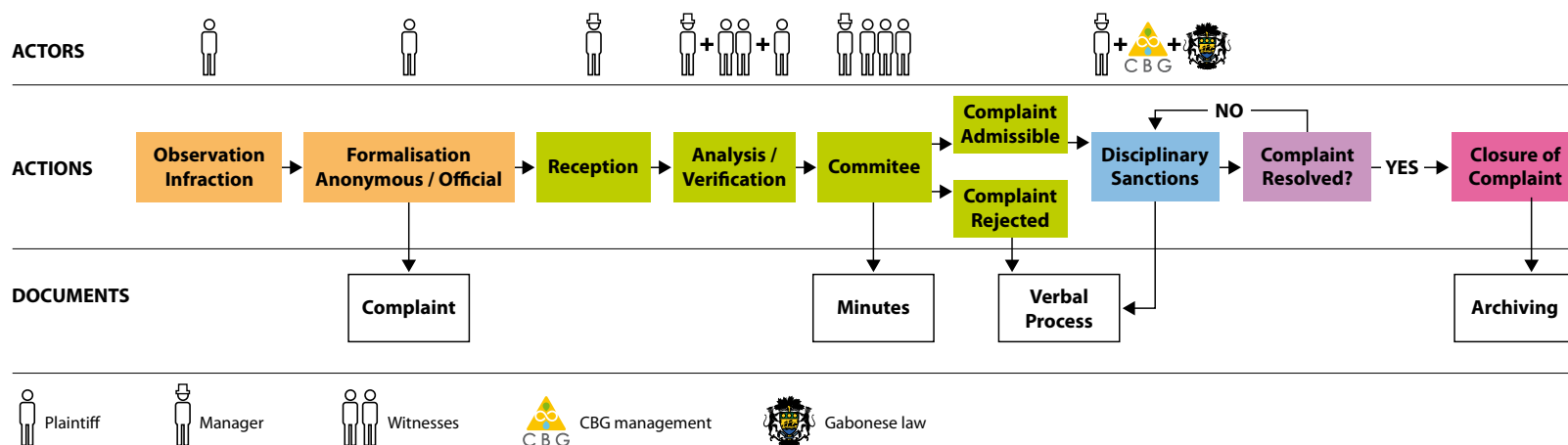
To improve the voice and representation of women in the workplace and at the forest camps (Rabi and Peny), a women's committee holds meetings to highlight women specific concerns. The company has also prioritised education, notably of girls, at their school in Rabi.

A formal process to report gender-based violence and harassment has been developed for the company. In December 2021 training was provided to seven health and safety and human resources staff on the prevention of harassment and gender-based violence in the workplace. This was followed up with extended training in January 2022 to equip the staff with understanding the consequences of harassment and gender-based violence and to address this aspect successfully.

The CBG commitment to prevent harassment and all forms of discrimination at the workplace (code of conduct) is acknowledged by all employees before signing their contract.



Year	Employees CBG/CPBG			Management CBG/CPBG		
	Male	Female	%	Male	Female	%
2022	704	80	10%	33	4	11%
2021	729	83	10%	31	4	11%
2020	699	80	10%	30	5	14%
2019	703	82	10%	31	5	14%
2018	710	72	9%	34	3	8%



Village and forest life

410 workers and their families live in the forest villages at Rabi and Peny (plus some in the community of Mandji). CBG has provided housing in villages designed for family life and a continuous program to improve employee housing is in place.

What was improved in 2022 to improve village and camp life:

- Expansion of the campsite commercial area with 3 new premises.
- Installation of new offices, workshops and parking for diesel tanks and staff trucks.
- Completion of the ceilings of camp housings and repair of the electrical installations.
- Construction of 6 permanent housing units for large families (to be completed this year, in May).

Employees and their families live in isolation resulting in the potential for limited quantity and diversity of food supply and additional economic costs. The CBG has facilitated the opening of food stores to provide a variety of products, as well as meat and fish.. The same selling prices as in Port Gentil are possible because CBG provides transport between Port-Gentil and the forest bases. Decisions concerning social life are taken in consultation with the Health and Safety Committee, which includes village representatives. Free electricity and the supply of potable drinking water is provided to all residents of Rabi and Peny. Drinking water plants are quality monitored every 6 month (laboratory tested). All test results conducted in 2022 concluded that water was of good bacteriological quality.

Improving Education

- Children of employees at the Rabi forest base attend Diboti school which was build and is fully funded by CBG.
- Classrooms: 5 - Teachers: 3 - Children: 100 in 2017, 150 in 2022.
- The children of the Peny forest base attend a public school in the village of Peny, which is also supported by the company.

Primary health care initiatives

- Nursing staff and an infirmary are available to workers and their families at Rabi and Peny.
- Formal medical evacuation process in place in case of any medical emergency.
- Pharmaceutical products provided by the health center are safe and procurement is transparent.

Future measures to ensure housing quality, hygiene and health

- Ensuring that the area of residences and the number of rooms is appropriate to the size of the households.
- The supply of electricity is permanent.
- Analysis of the current sewerage network and the collection / treatment of household waste to identify potential upgrades.
- Continued construction and upgrading of housing are part of an ongoing development plan.



Empowering our communities and protecting areas of cultural significance

CBG aims to establish meaningful and constructive communication with stakeholders (communities, NGOs, administrations).

A guarantee of social peace requires respect for legal and legislative requirements and the consideration of the land and use rights of the populations present in the Mandji forest concession, and continuous communication between society and people. Customary rights of use are governed by Act No. 16/01 of 31 December 2001 in the Forest Code of the Gabonese Republic.

- Number of recognized community villages in the CBG concession: 14
- Approximate no. of people in these villages: 500
- Localities in and around the concession shown on page 7.

No indigenous peoples in terms of the United Nations definition are identified in the Mandji forest concession in terms of the results of a study on semi-nomadic peoples in February 2009.

Through a process of Free, Prior and Informed Consent (FPIC) local communities grant CBG consent prior to the commencement of management activities affecting their identified rights through participatory mapping. The FPIC process ensures that local communities are aware of their rights and obligations regarding the resource. It also informs local communities of the value of the resource, their right to modify their consent to proposed management activities to the extent necessary to protect their rights and resources, lands, and territories, and informs them on current and planned forest management activities.

The preservation of areas of cultural significance and sacred sites, considered High Cultural Conservation Values, is a priority for CBG as part of its commitment to responsible logging. As part of land use surveys, sacred sites of religious or cultural interest are identified. In the field, systematic inventory teams identify all elements that mark a past or present human presence (sacred sites, sacred caves, ancient villages, plantations, hunting areas etc.) in collaboration with representatives of villages. These data are mapped to anticipate and limit conflicts of use related to forestry, and to put in place appropriate protection measures including exclusion from exploitation.. Marking is also done in field in the presence of villages and with their assistance.



Managing conflicts over land use rights

CBG aims to prevent conflict through ongoing communication, but when unavoidable, deals with conflict through the conflict resolution strategy. The election of village committees in each village allows CBG to have a recognized platform for communication and consultation. CBG's Social Program Manager ensures that relationships are maintained through meetings, phone calls and minutes.

A platform for conflict discussion and resolution has been developed to avoid situations that could lead to a deterioration of relations between village communities and CBG. The inclusion of conflict management in the company's management system contributes to the sustainable and participatory management of natural resources in the forest concession.

All conflicts related to land and use rights are documented (minutes, compensation, solutions). CBG is committed to reviewing every claim made by a villager. When damage is caused to crops or to sites in the context of exploitation activities, CBG will review the damage and together with communities and the Administration, or mediators, where necessary, will determine compensation.

CBG sensitizes CBG workers to respect village communities living in the forest reserve. This includes speaking with respect, not indebting village populations and limiting speed when passing through settlements and villages.



An overview of all external conflicts in the past 5 years as well as our conflict mitigation strategy are presented in Annexe 1.5

Supporting our communities

Improving living conditions of people living in or on the periphery of the concession area through facilitating economic development, promoting local employment and improving the living environment.

Article 251 of the Forest Code:

To promote the social aspect of the sustainable management policy, a financial contribution is set up, fed by the holders of these concessions to support development actions of collective interest initiated by the said communities. The nature and level of this contribution are defined by the contractual specifications related to each concession. The management of this contribution is left to the discretion of the representative assemblies of the communities concerned.

Sustainable use of non-timber forest products, through legal hunting, fishing, trapping, and collecting by local communities for sustainable needs is recognized. Support is also provided through the establishment of an institutional framework that allows the needs of local communities to be identified in a rational and transparent manner. Each village has been sensitized on the creation of a village committee that elects two representatives. The agreement is validated by the members of the Monitoring Committee, during a meeting attended by village representatives, administrative authorities and CBG. Projects must benefit the village community (improvement of basic social facilities and services initially and creation of activities generating stable income and jobs thereafter). Support is provided in the form of projects, not in cash payments. Contractual agreements are drawn up which aim to formalize the relationship.

The amount of support is based on the National Decree n° 105 with 800 FCFA per m³ (US\$ 1.3 per m³) of wood produced annually. Support is distributed to the communities, according to the area covered within the concession. The length of the financial engagement is fixed by the rotation period for the FMU (25 years).

Beneficiary areas:

- Subdivision of Haute Mougala (Idemba).
- Subdivision of Basse Mougala (Guietsou).
- Divisions of Etimboué, Ndolou and Douigny (Doussala).

Projects supported:

- Basic social facilities, services in health, education, water, electricity, maintenance of road networks.
- Each year, a summary of the social actions and expenditure is developed. A summary is provided in the Annexure of this report.

An overview of all donations for the local development fund as well as the realized projects in the past 5 years are presented in Annexe 1.1.



The Mandji forest and its conservation and protection zones

“Gabonese forests have among the highest levels of species diversity and endemism in tropical Africa and are likely to play a critical future role in biodiversity conservation.” Laurance et al. (2006)*

The Mandji forest concession is an area of critical biodiversity and conservation in the Gamba-Mayumba-Conkouati landscape, north of the Gamba Protected Areas Complex. It adjoins or is included in the buffer zone of the Moukalaba Doudou and Loango National Parks, with an overlap of 80,700 hectares. These parks includes more than 80 species including large populations of the most emblematic species of Central Africa, such as the gorilla, chimpanzee, leopard, elephant and forest buffalo. Large wetlands are present throughout the surface of the Gamba Protected Areas Complex. Almost all the Kivoro FMU (192,600 ha) is included in the Petit Loango Ramsar site.

During inventories, High Conservation Value assessments and biodiversity surveys CBG identify remarkable and important places for wildlife conservation and landscape protection. For each type of location identified, the reason for its importance, identifiers and level of protection are defined. During exploitation inventories, additional places are mapped and put under protection.

Conservation and Protection zones (as in 2022)				
FMU	Production (ha)	Conservation and Protection (ha)	Agriculture or petroleum exploitation	TOTAL
Rabi	170397	9074	6229	185700
Kivoro	207802	6137	2504	216443
Mandji	145990	8776	11634	166400
Total	524188	23987	20367	568543

Protection Zones comprise:

- Buffer zones of 50 m on both sides of the main watercourses (more than 25 m wide of average bed, excluding exceptional floods).
- Buffer zones of 20 m on both sides of the medium watercourses (average bed width between 9 and 25 m, excluding exceptional floods).
- Swamps
- Slopes of more than 50%.
- Forests rich in endemic/threatened species such as monospecific stands of *Lecomtedoxa nogo* and *Sacoglottis gabonensis*.
- Other remarkable and important environments for the conservation of biodiversity, such as rocks, rock faults, caves, waterfalls and lakes.
- Areas of cultural significance such as ancient villages, cemeteries, sacred sites and archaeological area.

Conservation zones:

Predefined samples of each ecosystem that represent in themselves a high conservation value, and/or that support species of high conservation value (rare, threatened, or endemic species). CBG will not engage in logging activities in Conservation zones, and hunting is strictly prohibited.

Protection zones:

Identified during inventory processes and constantly evolving. Areas dedicated to conservation have dimensions from a few hectares to a few hundred hectares. Formalizing the setting aside of additional environments of high value.

*Laurance, W. F., Alonso, A., Lee, M., Cambell, P., 2006. Challenges for forest conservation in Gabon, Central Africa, *Futures*. 38 (4), 454-470.

Maintaining biodiversity and promoting environmental awareness

Forest management must maintain biological diversity and associated values, water resources, soils, and fragile ecosystems to protect the ecological functions that ensure the integrity of the forest.

Important areas of the forest concession are set aside (through the establishment of protection and conservation zones) that will not be exploited during the entire period of application of the management plan.

CBG keeps abreast of scientific developments and environmental standards to continue to evolve its conservation and protection zones. Being 100% FSC® certified, CBG is part of the current discussion on Intact Forest Landscapes between the different stakeholders. Landscape level management is important and joint projects such as ProLAB and biodiversity assessments occur across boundaries to have maximum impact.

The impacts of logging activities on forest structure, biodiversity (fauna and flora) and the environment are mitigated by protection measures which are crucial part of obtaining environmental certification through FSC. Reduced Impact Logging (RIL) processes are subject to regular monitoring and evaluation and make it possible to ensure improvement over time.

At each stage of the forestry operations, staff are made aware of the concept of respect for the environment, notably in terms of the minimization of wood waste, respect for the resource of the future (protection of designated trees), respect for watercourses, protection of fragile environments, waste collection (oils, diesel oil, various garbage, etc.) and hunting regulations (wildlife management plans).

The process to raise staff awareness of responsible forest management and respect for the environment include:

- Publication of awareness documents (brochures and posters) presenting responsible forest management and the company's environmental approach.
- Continuous updating of technical sheets describing the working methods for all workstations.
- Periodic environmental information meetings.
- Raising CBG awareness during hiring processes, through an interview with a manager followed by the signing of a certificate of commitment to respect the environment.



Threatened species of Mandji forest

CBG is committed to protecting all species classified by IUCN, CITES or the Gabon Ministry of Forests. Rare, threatened or endangered species identified in the Mandji concession comprise 34 mammals, 22 birds, 12 reptiles and 44 types of flora.

In March 2017, in partnership with WWF, a biodiversity and large mammal survey was initiated through ProLAB, covering the full CBG area, and including the adjoining open areas near the two National Parks and the wetland areas of the Gamba complex – ensuring a landscape approach. These surveys were complete in March 2018 and covered 7,049 km². This monitoring is a unique faunal database of a global biodiversity hotspot. Five teams, including six people each, covered 2 km linear transects at a time, and completed 426 transects. Results have identified areas of high biodiversity and locations of illegal activities. The survey concentrated on elephants, large and small primates, forest pigs, buffalos, and leopards. The inventories, which are to be repeated every five years, will allow careful monitoring of biodiversity trends, forming the basis of a Biodiversity Action Plan.

In 2020 WWF discovered special saline nutrient pools on CBG and at the border of the Moukalaba-Doudou National Park used by large numbers of animals to bath and collect mineral salts. Since May 2020, the Peny saline pools have been monitored using trap cameras. Another site at Massana was added for monitoring in 2021. Seven cameras were placed at the saline pools for elephant tracking and area surveillance. Many videos have been recorded which show a high attendance of animals, particularly elephant, bush pig, gorilla and giant turacos. Poachers were however also filmed, and hunting was observed. Strengthening surveillance and protection are implemented to deter the practice of hunting in this rich and important area.

A NGO led project by Panthera has been photographing big cats and other wildlife on CBG land since 2015 (youtube : <https://youtu.be/qYTtj96air0>). An interview of the director of the NGO in Gabon has also been published on the CBG website.



A list of all endangered species (Cites, IUCN and National Status) discovered within the CFAD of Mandji are listed in Annexe 1.4.



Protecting high conservation value

The first survey and management plan for all high conservation values within the CBG concession of Mandji was conducted in collaboration with the consulting agency TERA in 2009. This report was revised three times, with the latest revision issued in October 2016. The follow-up and monitoring plan has constantly been updated since then.

A summary of what constitutes HCV is included in in Annexes 1.6

Steps taken to protect HCV in 2021 and 2022

Ensuring Low impact operations HVC 1, 2, 3 and 4	The review of quality ratings for felling and skidding in 2021 and 2022 remained well above the acceptable standard. The size of temporary landings has been systematically minimized to an average of 0.1 ha. No waste was identified on landings during the various controls. All temporary road infrastructure is dismantled in accordance with established procedures.
Protection of sensitive areas and threatened species HVC 1, 2, 3, 4 and 6	The integrity of buffer zones defined around rivers and national parks has been 100% preserved. No slope greater than 50% has been exploited and trees next to watercourses underly a specific selection and felling procedure. The strict application of RIL as well as anti-poaching controls in collaboration with the national authorities (Ministry of Forests) and WWF (ProLAB) are ensuring the conservation of threatened species.
Minimizing external social impacts HVC 1, 5 and 6	All exploitation activities within Kivoro (AAC 13 and 14) were carried out at a distance from villages and areas of cultural significance. For the AAC 18 (Rabi) and AAC 19 (Mandji) free prior informed consent (FPIC) was granted by the local population
Anti-poaching program HVC 1, 2, 3 and 5	The number of offenses registered concerning the exploitation of wildlife was 34 in 2021 and 17 in 2022 and the rate of vehicles in violation during the controls at the entrances / exits of the concession remained less than 1%.
Village plantations / monitoring of the massif HVC 6	New village plantations, created by subsistence communities in 2021, have spread over about 178 ha of forest while remaining within the agricultural series defined in the various management documents.



The definition of High Conservation Values as well as the HVC management plan are presented in Annexes 1.3 and 1.8

Protecting our wildlife and forests

CBG is committed to zero conversion of natural ecosystems and forests as outlined by the FSC principles and criteria.

Protection actions:

- Conservation measures maintain the integrity of forest ecosystems by ensuring the connectivity of ecological corridors, and the preservation of important tree species.
- Awareness-raising measures for local populations, CBG staff and beneficiaries on the responsible wildlife management policy (including protected species, opening, and closing dates of the hunting seasons, and Gabonese regulations regarding hunting).
- Repressive and control measures are applied to enforce the wildlife management plan. Controls are carried out both at the entrance barriers of the forest concession and on the roads from the interior.
- Affirmative action to ensure sustainable and economically viable alternatives to bushmeat for local populations, CBG staff and beneficiaries.

CBG prohibits hunting except for subsistence hunting by local communities and in compliance with national legislation. CBG has been partnering with MINEF, Gabon's Ministry of Water and Forests (Directorate General of Wildlife and Protected Areas) and the WWF for the implementation of an anti-poaching program, ProLAB, since 2008. ProLAB covers the protection of 568543 ha of CBG's forestry concession area as well as surrounding conservation areas in the Gamba Complex. It focuses on anti-poaching operations and raising local community awareness on the need to protect wildlife and biodiversity. The signing of a tripartite agreement in 2008, and its renewal in 2015, aims to protect the large mammals of the Mandji forest concession. All wildlife management measures are detailed in the Wildlife Protection plan.



PROLAB

The success of PROLAB in the last 5 years are presented in Annexe 1.2



Protecting the buffer zones of national parks

The Mandji forest concession is adjacent to Loango and Moukalaba-Doudou national parks and straddles a 5-km wide buffer zone, covering a total area of 80,851 ha (Loango: 23,434 ha and Moukalaba-Doudou: 57,417 ha). Each year, the buffer zones are mapped and marked on a GIS map. Operations follow strict rules in these areas, which are described in the environmental and social management plan, which is based on the environmental and social impact assessment and updated regularly.

Rules to mitigate impacts are:

- Creation of a 200m strip around Loango National Park and 50m around Moukalaba Doudou National Park where all logging activities are prohibited (prohibited zone).
- Exploitation inventory operations: strict prohibition of hunting, no campsites within 50 m of water course buffer zones.
- The construction and use of the road network and landings: reusing old roads and exploitation tracks, no gravel use (exploitation during dry season), no roads within 100 m of water courses, reduce number of landings (stocking next to roadsides), setting up check points and minimizing artificial crossings.
- Felling and topping: prohibition to cut down trees located in swamp areas and slopes of more than 50 %.
- Skidding operations: prohibition to cross watercourses or skidding on slopes of more than 50 %, anti-erosion measures on skidding trails.



Determining harvest sustainability

All harvest quotas are derived from the validated management plans. According to the estimated regrowth rates, harvest impacts and population dynamics, minimal harvestable diameters per species are fixed, thus assuring sustainable exploitation according to the rotation period (25 years).

A 3 km x 3 km square divided into 3 km x 200 m plot inventories make it possible to obtain a precise location and quantification of the harvest trees within the operating unit.

Trees are differentiated according to their species, diameter, and quality class at precise mapping (georeferenced at 25 m precision). All species to be managed are identified during this inventory, including the resource that can potentially be exploited or is exploitable soon (up to one year), depending on the diameter and quality.

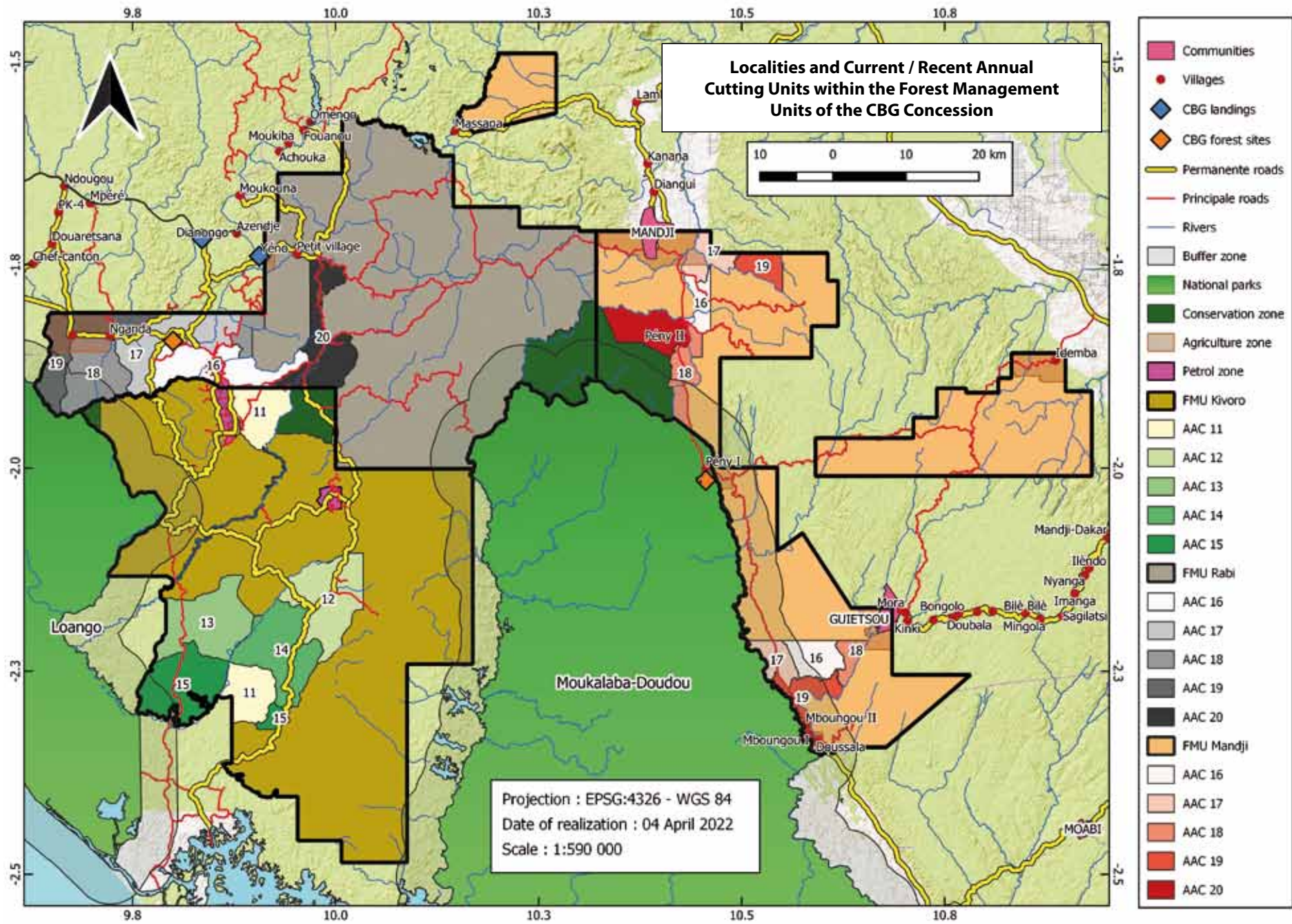
Information is also captured on seed trees, the hydrographic network and dry flows, old skidding tracks, roads and wood yards, elephant tracks and village tracks, remarkable environments, and agricultural areas. Sites of cultural importance such as ancient cemeteries and other sacred places are mapped with the help of local people. Infrastructure with significant operating constraints (such as oil platforms, pipelines, high-voltage power lines) are also mapped. All information is digitized to plan exploitation activities and produce detailed exploitation maps used in the field.

A log tracking system from inventory to felling up to transformation in the industries has been developed for all timber harvested. Information is managed with Microbois and GIS software, which makes it possible to avoid forgetting trees in the forest and find the position of each log at any time during the transformation process. Software also allows global management of all the activities and a simultaneous follow-up of the forecasts of the inventories and the volumes exploited and marketed.

Exploitation history and planning (2021-2023) in the three forest management units					
FMU	UFG open	AAC closed in 2021	AAC closed in 2022	AAC opened in 2022	AAC to be opened in 2023
Kivoro	UFG 3	AAC 11	AAC 12 and 13	AAC 14	AAC 15
Rabi	UFG 4	AAC 15 (UFG 3)	AAC 16	AAC 18	AAC 19
Mandji	UFG 4	AAC 17	AAC 18	AAC 20	AAC 21 (UFG5)

Location of the FMUs and AACs can be seen on the map on page 27







Reduced impact logging

Reduced impact logging (RIL) is the intensively planned and carefully controlled implementation of timber harvesting operations to minimize environmental impacts on forest stands and soils. RIL-C (Reduced Impact Logging – Carbon) is intended to maximise the carbon benefits of RIL. ¹



In 2021 the Nature Conservancy's Global Natural Climate Solutions science team completed an impact parameter assessment of CBG.

RIL assessment highlights:

- CBG is operating one of the most carbon-smart forest management concessions in Gabon.
- CBG's logging operations have lower carbon impacts than average in all categories measured in the assessment.
- In comparison to conventional methods, CBG is avoiding the emission of 1.28 tons of carbon for every m³ of wood that is harvested.
- CBG logging operation emitted only 51% of the carbon typically emitted by similar operations, in terms of emissions per m³ of wood produced.
- With continued improvement CBG could avoid a further 0.85 ton per m³ going forward.
- Lower emissions performance was the result of excellent tree and log utilization on CBG's operation (only 0.4% of logs lost in the concession).
- Results substantially better than even the best performing concessions in The Nature Conservancy's database of logging impacts.
- Further opportunities for improvement identified: optimizing the use of haul roads and log yarding.

The company will continue to investigate ways to improve efficiency and will ensure that:

- The felling method used will be controlled logging that considers all currently existing low-impact standards.
- Felling techniques will ensure safety for the feller and the least possible waste of wood. Fellers are regularly trained by professional trainers for this purpose.
- Pre-harvest forest inventories and the mapping of individual crop trees is accurate (strive towards digital forest inventories).
- The pre-harvest planning of roads, skid trails and landings minimize soil disturbance and protect streams and waterways with appropriate crossings.
- The construction of roads, landings and skid trails are in accordance with environmentally friendly principles.
- The use of appropriate felling and bucking techniques, such as directional felling, cutting stumps low to the ground to avoid waste, and the optimal crosscutting of tree stems into logs maximizing the recovery of useful wood.
- The winching of logs to planned skid trails, ensuring that skidding machines minimize distances.
- Conducting post-harvest assessments to provide feedback to resource managers and logging crews and to evaluate the degree to which RIL guidelines have been applied.

¹ - Refer to Ellis et al. (2019) for more information. Ellis P.W., Gopalakrishna T., Goodman R.C., Putz F.E., Roopsind A., Umunay P.M., Zalman J., Ellis E.A., Mo K., Gregoire T.G. and Griscom B.W. 2019. Reduced-impact logging for climate change mitigation (RIL-C) can halve selective logging emissions from tropical forests. *Forest Ecology and Management* (438) pp 255-266

Preventing forest fires, protecting soils, swamps, flood zones and water sources

No area of the Mandji forest concession is subject to a fire hazard due to the type of vegetation and high rainfall and humidity. No damaging forest fire has been recorded for the past 22 years within the concession.

CBG is committed to best management and protecting soils, wetlands and peatlands and particular attention is paid to respecting sensitive areas such as steep slopes, swamp and flood-prone areas to reduce compaction, minimize erosion and conserve soils. Formal protection measures are detailed in the company's operating procedures. Wetlands and steep slopes not included in the protection zones are subject to specific RIL measures that are integrated into operational procedures and described in the Environmental and Social Management Plan. No plantations have been established by the company, including on peatland.

Respect for watercourses and their edges is an integral part of the protection measures. All watercourses and swamps are mapped prior to exploitation. Since 2018 a special control has been carried out on felling along watercourses. Any tree falling over a river will be cut before being moved by operating machines, to prevent the foliage from clogging the watercourse. CBG also systematically unclogs the watercourse after exploitation of a block, to restore a flow equivalent to the initial flow.

Buffer zones delineated around water courses depend on the width of the riverbed and are included in the annual management plan. Where a risk of flooding exists on the permanent road network, CBG builds bridges as a priority in place of temporary crossings, which will eliminate this risk of flooding and minimize erosion and runoff.

Roads, a potential significant contributor to erosion and soil management are stringently managed. To avoid the additional creation of roads for the exploitation of the various blocks, main and former roads are also maintained and repaired. The permanent main roads, Manji-Yeno, Mandji-Peny and Petit village-Rabi are maintained twice a year after the rainy seasons. The main roads of Kivoro FMU to the areas of Eshira and Niungo are also maintained.



Monitoring of Forest Cover Loss

CBG is committed to preventing deforestation and applies the principles of FSC regarding deforestation.

Monitoring of forest cover loss is carried out at two levels:

- Evaluation of areas deforested by roads and skidding tracks during and after exploitation.
- Consulting Global Forest Watch (<https://www.globalforestwatch.org/>) data.

Annual Forest Losses in the CBG Concession (ha)			
Year	Total *	CBG**	Other***
2018	547	282	265
2019	450	202	249
2020	425	139	286
2021	425	247	178
2022	No data available	275	--

*data from Global Forest Watch (tree cover > 30%)
 ** source: CBG forest exploitation (roads /skidding tracks)
 *** source: village plantations, petrol activities, others

Annual Forest Losses in the CBG Concession (ha)						
FMU	2018	2019	2020	2021	2022	Average
Kivoro	91,5	75,0	0,0	78,0	166,0	82,1
Mandji	106,3	39,2	76,3	74,0	63,0	71,8
Rabi	84,4	87,3	62,8	95,1	45,5	75,0
Total	282,2	201,5	139,1	247,1	274,5	228,9



Monitoring forest change and research

Improving knowledge of the managed forest area requires a continuous inventory of the natural resources that constitute it. Research themes make it possible to compare the evolution of an undisturbed forest with a forest of the same type (composition, structure) subject to Reduced Impact Logging. An entire network of permanent plots has been developed at CBG, and these are continuously added to.

Results of Monitoring are included in the management plans and in summaries of FSC audit reports.

In 2009, a permanent forest research plot was set up in Kivoro forest management unit, by the Smithsonian Institution, in collaboration with CBG and Assala Gabon. The plot represents an area of 50 ha and is part of the global SIGEO network, monitoring the evolution of flora, fauna, and the environment in forest areas. The Smithsonian Tropical Research Institute's Global Monitoring of SIGEO plots aims to better understand the relationships between forest growth, forest biodiversity and climate change. Since 2010 the identification and measurement of all woody trees with a diameter greater than one centimeter has started on an area of 25 ha, protected by a buffer zone of 600 ha.

Since 2018, CBG has also been working with Gabonese botanist Yves Issembé to set up systems to monitor the growth and regeneration of the species most exploited by CBG. This monitoring makes it possible to study the growth, mortality and regenerative capacities of these species in the long term. Six regeneration plots (for Azobe) and nearly 1000 plants of Azobe, Okoumé, Towé and Bilinga have so far been integrated into the system.

In the long term, the permanent network of plots should make it possible to compare the evolution of an undisturbed forest with a forest of the same type (composition, structure) subject to RIL. New plots can be integrated into the existing network. The establishment of any future research will consider the relevant reference manuals and the evolution of IUCN guidelines.

CBG research topics:

Growth, regeneration, exploitation harvesting rates, natural dynamics, exploitation damage rates, impact of exploitation on biodiversity.



Our solutions to waste management

Waste collection and recycling take place for both forest sites and mills in accordance with legislation, notably regulating waste disposal and the recovery of waste oils and considering environmental values of the Management Unit by avoiding, correcting, or limiting negative environmental impacts.

An anti-pollution policy is in place and is based on the sorting and collection of waste from the concession, living areas and processing plants. Waste collection is carried out every week at the campsites and the sites are controlled by the Ministry of Health and Social Affairs. Various contracts have been signed for recycling metals, plastics, waste-oil and batteries. Other waste (such as oil contaminated waste and other hazardous substances) is delivered to suitable treatment centers for destruction.

To minimize impacts on the environment, CBG and CPBG processing plants have set up kilns for drying processed products operating from wood residue and waste, minimizing their energy dependence on the Gabon Energy and Water Company (Société d'énergie et d'eau du Gabon, SEEG) and reducing wood waste.

Faulty electrical appliances are collected and stored separately, pending disposal at a recycling center.

No hazardous chemicals (including herbicides and pesticides) are used in forestry operations.



Details depicting the evacuated waste in the past 3 years is presented in Annexe 1.7

Carbon balance and decreasing our impacts



Indigenous trees and forests play an important role in helping us both mitigate and adapt to the impacts of climate change. As carbon sinks, trees and the planet's forests help cool the earth by removing carbon dioxide from the air and storing it within their roots, stems, and leaves.

The 609,523 ha Mandji forest concession is a significant area of carbon storage. Responsible management of this resource is a key mandate of CBG.

Carbon Footprint (tons CO2)	2018	2019	2020	2021	2022
Annual forest carbon net sequestration	2 065 256	2 068 876	2 071 736	2 023 118	1 959 800
Operations Direct emissions	10 385	9 847	9 027	9 601	8 336
Indirect emissions under company control	2 783	2 602	2 378	2 685	2 387
Annual total net carbon sequestration	2 052 088	2 056 427	2 060 331	2 010 832	1 949 077

CBG's commitment to the preservation of the environment commits to eliminate any unnecessary energy use and put in place optimal performance practices to reduce greenhouse gas emissions intensity by 10 % in 2030. The entire fleet (light vehicles and trucks) is managed in "Long-Term Rental" mode or similar and is completely replaced every two years by a new fleet. This makes it possible to permanently have vehicles equipped with latest-generation, less polluting engines, and to reduce mechanical interventions. A project to convert primary energy for electricity generation at the Rabi base has been launched, switching from diesel to natural gas.

The litres of diesel consumed against efficiency (m3/l) by CBG, CBG sawmill and CPBG are shown below. Important to note is that fossil fuels depicted for the forest sites are not only used for harvesting and hauling operations but also for electrification of living bases, development assistance programs and occasional donations to communities and production. Other hydrocarbons consumed are petrol, motor oil and lubricating oils.

Diesel used in Forest and Industry and l/m ³ produced (logs, sawn wood, veneer)								
Year	2020		2021		2022		Average (20-22)	
Site	Liters	l/m ³	Liters	l/m ³	Liters	l/m ³	Liters	l/m ³
CBG Forest	3 138 000	21,42	3 279 000	20,10	2 881 000	15,60	3 099 333	19,04
CBG Sawmill	254 000	9,33	218 000	7,44	186 000	6,65	219 333	7,81
CPBG	111 682	3,29	106 365	2,91	106 425	2,99	108 157	3,06



Annexures / 1.1 Community support in detail

Support FDL 2019-2022 (FCFA)					
Divisions	2019	2020	2021	2022	2023
Basse Mougabala	11 059 800 FCFA	10 547 600 FCFA	11 510 600 FCFA	11 614 800 FCFA	12 662 900 FCFA
Douigny	2 552 200 FCFA	2 434 000 FCFA	2 656 200 FCFA	2 680 300 FCFA	2 922 200 FCFA
Etimboué	21 269 000 FCFA	20 284 000 FCFA	22 135 800 FCFA	22 336 200 FCFA	24 351 800 FCFA
Haute Mougabala	9 358 300 FCFA	8 924 900 FCFA	9 739 700 FCFA	9 827 900 FCFA	10 714 800 FCFA
Ndolou	40 836 400 FCFA	38 945 200 FCFA	42 500 700 FCFA	42 885 500 FCFA	46 755 500 FCFA
Total	85 075 700 FCFA	81 135 700 FCFA	88 543 000 FCFA	89 344 700 FCFA	97 407 200 FCFA

Divisions	Major projects	2019	2020	2021	2022
Mougabala Bass	Project 1	no projects	- COVID (no projects)	Construction of 2 contiguous housing units for the CES of Guiétsou	Construction of 2 contiguous housing units for the CES of Guiétsou
	Project 2	no projects	- COVID (no projects)	Rehabilitation of the public school in Guiétsou centre	Rehabilitation of the public school in Guiétsou centre
Douigny	Project 1	Purchase of 3 brushcutters	- COVID (no projects)	Purchase of a 6KVA diesel generator for the Doussala village dispensary	Purchase of 2 STHILL 070 chainsaws to support agricultural activity
	Project 2	Purchase of a laptop computer for the sub-prefecture of Mourindi	- COVID (no projects)	Purchase of medicines for the Doussala village dispensary	Purchase of a FS400 brushcutter
Etimboué	Project 1	Purchase of electrical equipment for the Nganda village electrification project	- COVID (no projects)	Purchase of 38 solar panels + 19 tubes tariff 40/49 + 1 Rustproofing project for the electrification of the village of Missoula-ngola	Purchase of a 44 KVA generator for the electrification of Azendjé village
	Project 2	Purchase of electrical equipment for the Dianongo village electrification project	- COVID (no projects)	Purchase of a Yamaha 40CV engine and repair of a dugout canoe for community mobility and to support agricultural and commercial activities in Dianongo village	Purchase of 1,520 metal sheets for the rehabilitation of social housing in the village of Missoula-Gola
Upper Mougabala	Project 1	Purchase of school kits for school children in the village of Idemba	- COVID (no projects)	Purchase of 6 STHILL 070 chainsaws to support agricultural activity in the village of Idemba	Purchase of 6 STHILL 070 chainsaws to support agricultural activity in the village of Idemba
	Project 2	Purchase of medicines for the Idemba village dispensary	- COVID (no projects)	Purchase of 300 plastic chairs for an income-generating activity for the village of Idemba	Purchase of 6 x 10m tents for the project to set up an income-generating activity for the village of Idemba
Ndolou	Project 1	Construction of a solar powered village water pump in Yéno village	Rehabilitation of 15 km of road Mandji - Yombi axis	Rehabilitation of 9km of road, rehabilitation of 3 bridges and installation of 2 culverts	Rehabilitation of manual village hydraulics for the villages of Péni 1 and Petit village
	Project 2	Purchase of a generator in Petit village/Carrefour	- COVID (no projects)	Development of 2 platforms for the construction of a municipal stadium (multi-sports complex)	Construction of a house with 3 bedrooms, kitchen, living room, terrace for the village Péni 2

Annexures / 1.2 Protecting our forests (PROLAB in numbers)

Equipment seized 2018-2022						
Type	2018	2019	2020	2021	2022	Average
Guns	24	21	26	17	14	20
Ammunition	40	62	77	24	23	45
Other tools	1		76	12	8	24
Chainsaws	1	3	1	0	2	2
Total	66	86	180	53	47	86

Patrol effort 2018-2022						
Type	2018	2019	2020	2021	2022	Average
Distance travelled on foot (km)	228	346	680	431	154	421
Distance travelled by boat (km)	1	73	162	9	0	61
Distance travelled by vehicle (km)	8732	18860	23929	33022	23788	21136
Man-days patrolled	1385	1766	1124	1173	643	1362
No. of days on patrol	72	105	85	78	93	85
Personnel used on missions	20	23	28	24	19	24
Mission days	293	260	281	287	272	280
Active mission hours	3245	1973	3198	1784	1123	2550

Results of interventions 2018-2022					
Year	Results	Fixed posts		Mobile operations	
		Vehicle searches	Person searches	Vehicle searches	Person searches
2018	With violation	11	NA	NA	NA
	No violation	1864	5546	NA	NA
2019	With violation	6	18	10	19
	No violation	110	401	11	11
2020	With violation	12	20	14	27
	No violation	5640	17976	33	133
2021	With violation	5	16	12	32
	No violation	1478	4124	27	100
2022	With violation	2	9	13	26
	No violation	713	2097	22	111

Offences 2018-2022						
Type of offence	2018	2019	2020	2021	2022	Average
Hunting protected species	1	2	6	10	2	4
Hunting in a National Park	3	0	0	0	0	1
Hunting out of hunting season	6	0	2	1	0	2
Possession of protected species		2	1	2	0	1
Illegal gold mining	0	0	0	5	0	1
Illegal logging	2	2	2		2	2
Carrying a weapon without a licence	13	18	25	14	12	16
Other offences	3	5	4	2	1	3
Total	19	29	40	34	17	28

Annexures / 1.3 High Conservation Values Monitoring Plan

Theme	HVC_1	HVC_2	HVC_3	HVC_4	HVC_5	HVC_6	Indicator	Scale	2019	2020	2021	2022
EFIR	X		X	X			Average felling grade	CFAD	8,4	8,2	8,1	8,2
	X		X	X			Felling next to rivers	CFAD				
	X		X	X			Logging landings	CFAD	0,1 ha	0,1 ha	0,1 ha	0,1 ha
	X		X	X			Waste presence in forests	CFAD	Non	Non	Non	Non
	X		X	X			Average skidding grade	CFAD	8,3	8	8,1	8,2
	X		X	X			Dismantling of bridges/crossings	CFAD	100%	100%	100%	100%
Protection zones	X		X	X		X	Surface as protection zone	Kivoro	K10 : 1.110 ha		K11 : 878 ha	K12 : 0 ha K13 : 0ha
								Mandji	M15 : 0 ha	M16 : 0 ha	M17 : 0 ha	M18 : 0 ha
								Rabi	R13 : 0 ha	R14 : 0 ha	R15 : 0 ha	R16 : 0 ha
	X		X	X		X	Surface as buffer zone (water courses)	Kivoro	K10 : 27 ha		K11 : 89 ha	K12 : 0 ha K13 : 0ha
								Mandji	M15 : 0 ha	M16 : 0 ha	M17 : 0 ha	M18 : 0 ha
								Rabi	R13 : 0 ha	R14 : 0 ha	R15 : 0 ha	R16 : 0 ha
	X		X	X		X	Surface of slopes non-exploited	Kivoro	K10 : 0 ha		K10 : 0 ha	K12 : 0 ha K13 : 0ha
								Mandji	M15 : 0 ha	M16 : 0 ha	M17 : 0 ha	M18 : 0 ha
								Rabi	R13 : 0 ha	R14 : 0 ha	R15 : 0 ha	R16 : 0 ha
	X		X	X		X	Protection Sensitive species (depicted in the PAO)	Kivoro	K10 : 78%		K11 : 79%	K12 : 64% K13 : 74%
								Mandji	M15 : 92%	M16 : 90%	M17 : 95%	M18 : 97%
								Rabi	R13 : 73%	R14 : 84%	R15 : 90%	R16 : 86%
X		X	X		X	No of rivers protected	Kivoro	K10 : 0		K10 : 0	K12 : 0 K13 : 0	
							Mandji	M15 : 0	M16 : 0	M17 : 0	M18 : 0	
							Rabi	R13 : 0	R14 : 0	R15 : 0	R16 : 0	
Social extern	X		X	X		X	Nb. Cultural sites protected	CFAD	3	0	0	0
	X		X		X		Nb. villages consulted (FPIC)	CFAD	1	0	0	2
PROLAB	X		X		X		Vehicles with infractions (PROLAB)	CFAD	5,17%	0,21%	0,34%	0,28%
	X		X		X		No of people sensitized (PROLAB)	CFAD	550	289		
Integrity of the massif - respect of the rights of use					X		Surface of plantations / or other source of deforestation (ha)	CFAD	249	286	178	no data

Annexures / 1.4 The threatened species of Mandji

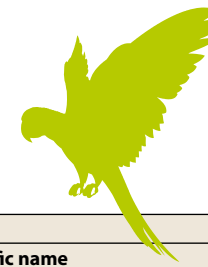


For a species to be considered threatened, it must meet at least one of the following criteria:

- The species is classified LC (Least Concern), CR (Critically Endangered), EN (Endangered) and VU (Vulnerable) by the IUCN (iucnredlist.org).
- The species is classified in CITES Appendices I (endangered species), II (vulnerable species, so trade must be regulated) and III (species listed for monitoring) (add website)
- The species is fully (IP) or partially protected (PP) in Gabon (Ministry of Forests (MINEF)).

Vulnerable mammals present in the Mandji forest concession						
Famille	Common name	French common Name	Scientific name	IUCN	CITES	MINEF
Bovidae	Bay duiker	Céphalophe bai	<i>Cephalophus dorsalis</i>	LC	II	
	Ogilbyi's duiker	Céphalophe d'Ogilby	<i>Cephalophus ogilbyi</i>	LC	II	IP
	Yellow-backed duiker	Céphalophe à dos jaune	<i>Cephalophus silvicultor</i>	LC	II	PP
	Blue duiker	Céphalophe bleu	<i>Philantomba monticola</i>	LC	II	
	Waterbuck	Cobe onctueux	<i>Kobus ellipsiprymnus</i>	LC		IP
	African buffalo	Buffle	<i>Syncerus caffer nanus</i>	LC		PP
	Sitatunga	Sitatunga	<i>Tragelaphus speki</i>	LC		PP
Cercopithecidae	Red-capped mangabey	Cercocèbe à casque rouge	<i>Cercocebus torquatus</i>	VU	II	
	Gray's crowned monkey	Mone couronné	<i>Cercopithecus pogonias</i>	LC	II	
	Putty nosed monkey	Hocheur	<i>Cercopithecus nictitans</i>	LC	II	
	Osman-hill's grey-cheeked mangabey	Mangabé à joues grises	<i>Lophocebus albigenia</i>	LC	II	
	Moustached monkey	Moustac	<i>Cercopithecus cephus</i>	LC	II	
	Northern talapoin monkey	Miopithèque de l'Ogooué	<i>Miopithecus ogoouensis</i>	LC	II	
Colobidae	Mandrill	Mandrill	<i>Mandrillus sphinx</i>	VU	I	PP
Colobidae	Black colobus	Colobe noir	<i>Colobus satanas</i>	VU	II	
Elephantidae	Elephant	Eléphant	<i>Loxodonta africana</i>	VU	II	PP
Felidae	African golden cat	Chat doré	<i>Caracal aurata</i>	VU	II	PP
	Leopard	Panthère	<i>Panthera pardus</i>	NT	I	IP
Galagonidae	Southern needle-clawed galago	Galago mignon du sud	<i>Euoticus elegantulus</i>	LC	II	IP
	Galago	Galago de Makandé	<i>Galago sp.</i>	LC	II	IP
	Demidoff's dwarf galago	Galago de Demidoff	<i>Galagoides demidoff</i>	LC	II	IP
Hippopotamidae	Hippopotamus	Hippopotame	<i>Hippopotamus amphibius</i>	VU	II	IP
Hominidae	Cross river gorilla	Gorille des plaines	<i>Gorilla gorilla</i>	CR	I	IP
	Chimpanzee	Chimpanzé	<i>Pan troglodytes</i>	EN	I	IP
Lorisidae	Potto	Potto de Bosman	<i>Perodicticus potto</i>	LC	II	IP
	Golden angwantibo	Potto doré	<i>Arctocebus aureus</i>	LC	II	IP
Manidae	Giant ground pangolin	Pangolin géant	<i>Smutsia gigantea</i>	LC	III	IP
Mustelidae	Congo clawless otter	Loutre du Congo	<i>Aonyx congicus</i>	LC	II	
	Spotted necked otter	Loutre à cou tacheté	<i>Lutra maculicollis</i>	LC	II	
Orycteropidae	Aardvark	Oryctérope	<i>Orycteropus afer</i>	LC		IP
Procaviidae	Western tree hyrax	Daman des arbres	<i>Dendrohyrax dorsalis</i>	LC		IP
Suidae	Red river hog	Potamochère	<i>Potamochoerus porcus</i>	LC		PP
Tragulidae	Water chevrotain	Chevrotain aquatique	<i>Hyemoschus aquaticus</i>	LC		IP
Viverridae	Servaline genet	Genette servaline	<i>Genetta servalina</i>	LC		PP

Annexures / 1.4 The threatened species of Mandji



Vulnerable birds present in the Mandji forest concession						
Family	Common name	French common name	Scientific name	IUCN	CITES	MINEF
Accipitridae	Crowned eagle	Aigle couronné	<i>Stephanoaetus coronatus</i>	LC	II	IP
	Cassin'a hawk-eagle	Aigle-autour de Cassin	<i>Spizaetus africanus</i>	LC	II	
	Red-chested goshawk	Autour de Toussenei	<i>Accipiter toussenelii</i>	LC	II	
	Black sparrowhawk	Autour noir	<i>Accipiter melanoleucus</i>	LC	II	
	African cuckoo hawk	Baza coucou	<i>Aviceda cuculoides</i>	LC	II	
	Red-legged sparrowhawk	Epervier de Hartlaub	<i>Accipiter erythropus</i>	LC	II	
	African hawk-harrier	Gymnogène d'Afrique	<i>Polyboroides typus</i>	LC	II	
	Bat hawk	Milan des chauves-souris	<i>Macheiramphus alcinus</i>	LC	II	
	Palm-nut vulture	Palmiste africain	<i>Gypohierax angolensis</i>	LC	II	PP
	Sea eagle	Pygargue vocifère	<i>Haliaeetus vocifer</i>	LC	II	IP
Falconidae	Congo serpent-eagle	Serpentaire du Congo	<i>Dryotriorchis spectabilis</i>	LC	II	
	Lesser kestrel	Faucon crécerellette	<i>Falco naumanni</i>	LC	II	
Musophagidae	Peregrine falcon	Faucon pèlerin	<i>Falco peregrinus</i>	LC	I	
Picathartidae	Yellow-bulled turaco	Touraco à gros bec	<i>Tauraco marcorhynchus</i>	LC	II	
Psittacidae	Grey-necked rockfowl	Picatharte du Cameroun	<i>Picathartes oreas</i>	VU		
	Red-headed lovebird	Inséparable à tête rouge	<i>Agapornis pullarius</i>	LC	II	
	Red-fronted parrot	Perroquet à calotte rouge	<i>Poicephalus gularis</i>	LC	II	
Strigidae	Grey parrot	Perroquet gris du Gabon	<i>Psittacus erithacus</i>	VU	II	PP
	Red-chested owlet	Chevêchette à pieds jaunes	<i>Glaucidium tephronotum</i>	LC	II	
	Band-tailed owl	Chevêchette à queue barrée	<i>Glaucidium sjustitedti</i>	LC	II	
	African wood-owl	Chouette africaine	<i>Strix woodfordii</i>	LC	II	
	Akun eagle-owl	Grand-duc tacheté	<i>Bubo leucostictus</i>	LC	II	

Vulnerable reptiles present in the Mandji forest concession						
Family	Common name	French common name	Scientific name	IUCN	CITES	MINEF
Boidae	Calabar ground python	Calabare de Reinhardt	<i>Calabaria reinhardtii</i>		II	
Chamaeleonidae	Common African flap-necked chameleon	Caméléon bilobé	<i>Chamaeleo dilepis</i>		II	
	Owen's three horned chameleon	Caméléon d'Owen	<i>Chamaeleo oweni</i>		II	
Crocodylidae	Slender-snouted crocodile	Faux gavia	<i>Crocodylus cataphractus</i>	DD (VU*)	I	PP
	Nile crocodile	Crocodile du Nil	<i>Crocodylus niloticus</i>	LC (VU*)	I	PP
	African dwarf crocodile	Crocodile nain	<i>Osteolaemus tetraspis</i>	VU	I	PP
Pythonidae	Central African rock pythos	Python de Seba	<i>Python sebae</i>		II	PP
Testudinidae	African articulated turtle	Tortue articulée d'Afrique	<i>Kinixys erosa</i>		II	
Trionychidae	Aubrey's flapshell turtle	Tortue molle d'Aubrey	<i>Cycloderma aubryi</i>	NE (VU*)		
	African softshell turtle	Tortue molle du Nil	<i>Trionyx triunguis</i>	NE (VU*)		
Varanidae	Nile monitor	Varan	<i>Varanus niloticus</i>		II	PP
	Gray's monitor	Varan de forêt africaine	<i>Varanus ornatus</i>		II	

* Assessed as Vulnerable by Lee and Pauwels within the meaning of the IUCN assessment criteria

Annexures / 1.4 The threatened species of Mandji

List of vulnerable flora the Mandji forest concession							
Name	Scientific name	IUCN	MINEF ***	Status* R/M	Curve R-M**	Status* K	CurveK**
Abem	<i>Gilbertiodendron spp</i> sauf <i>G. dewevrei</i> , <i>G. unijugum</i>	VU	-	B	1	B	1
Acajou	<i>Khaya ivorensis</i>	VU	-	A	2	A	3
Afo	<i>Poga oleosa</i>		IA	B	3	B	3
Agba	<i>Gossweilerodendron balsamiferum</i>	EN	-	C	-	C	-
Alone	<i>Rhodognaphalon brevicuspe</i>	VU	-	B	2	B	2
Andok	<i>Irvingia gabonensis</i>		IA	C	-	C	-
Andoung heitz	<i>Monopetalanthus heitzii</i>	NT	-	A	3	A	3
Andoung durand	<i>Monopetalanthus durandii</i>	VU	-	A	-	A	1
Anzem noir	<i>Copaifera mildbraedii</i>		-	A	-	B	-
Anzem rouge	<i>Copaifera religiosa</i>		-	A	3	A	3
Azobe	<i>Lophira alata</i>	VU	-	A	1	A	1
Bahia	<i>Hallea spp</i> , <i>Mitragyna spp</i>	VU	-	A	1	A	1
Bilinga	<i>Nauclea diderrichii</i>	VU	-	A	1	A	2
Bodioa	<i>Anopyxis klaineana</i>		-	B	2	B	1
Bosse fonce	<i>Guarea thompsonii</i> , <i>G. oyemensis</i>	VU	-	B	2	B	2
Dabema	<i>Piptadeniastrum africanum</i>		-	B	3	B	3
Dibetou	<i>Lovoa trichlioides</i>	VU	-	A	-	C	-
Douka	<i>Tieghemella africana</i>	EN	IA	B	2	B	3
Doussie blanc	<i>Azelia bipindensis</i>	VU	-	A	-	A	3
Doussie pachyloba	<i>Azelia pachyloba</i>	VU	-	A	-	A	3
Eyong	<i>Eribroma oblonga</i>	VU	-	C	-	C	-
Faro	<i>Daniellia klainei</i> , <i>D. ogea</i>	NT	-	B	2	B	3
Faro petites feuilles	<i>Daniellia soyauxii</i>		-	B	1	B	3
Ilomba	<i>Pycnanthus angolensis</i>		-	B	3	B	3
Iroko	<i>Milicia excelsa</i>		-	A	-	C	-
Izombe	<i>Testulea gabonensis</i>	EN	-	A	2	B	-
Kevazingo	<i>Guibourtia tessmannii</i> , <i>G. pellegriniana</i>		-	A	2	A	3
Kosipo	<i>Entandrophragma candollei</i>	VU	-	B	-	B	-
Kotibe	<i>Nesogordonia spp</i>	VU	-	A	1	A	1
Moabi	<i>Baillonella toxisperma</i>	VU	IA	B	3	B	3
Mukulungu	<i>Autranella congolensis</i>	CR	-	C	-	C	-
Okan	<i>Cylicodiscus gabunensis</i>		-	A	3	A	3
Okoume	<i>Aucoumea klaineana</i>	VU	-	A	1	A	2
Ossabel	<i>Dacryodes normandii</i>		-	A	1	A	3
Ovang kol	<i>Guibourtia ehie</i>	LC	-	A	1	A	2
Ozigo	<i>Dacryodes buettneri</i>		IA	B	1	B	2
Padouk	<i>Pterocarpus soyauxii</i>		-	A	2	A	3
Pau rosa	<i>Bobgunnia fistuloides</i>	LC	-	A	2	B	-
Sapelli	<i>Entandrophragma cylindricum</i>	VU	-	B/A	-	B	-
Sipo	<i>Entandrophragma utile</i>	VU	-	B/A	-	A	2
Tali	<i>Erythrophleum ivorensis</i>		-	A	2	A	3
Tiama blanc	<i>Entandrophragma angolense</i>	VU	-	B/A	-	B	-
Wenge	<i>Millettia laurentii</i>	EN	-	B	-	B	-
Zingana	<i>Microberlinia brazzavillensis</i>	VU	-	B	-	B	-

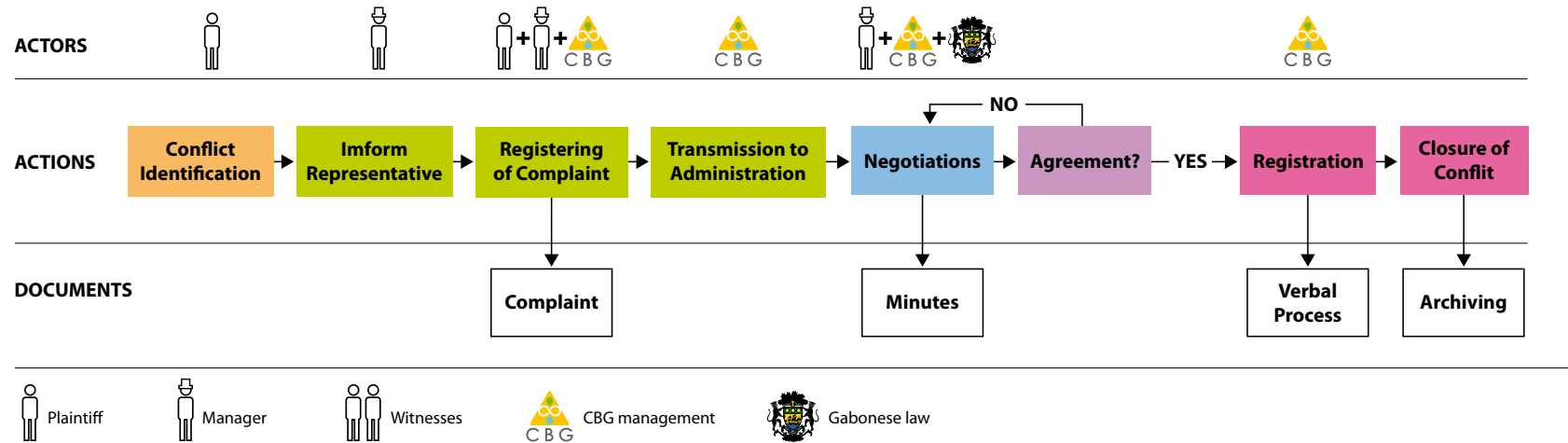
* (A) Trees exploited, (B) Trees not exploited, (C) Trees absent from the UFA

** (1) Decreasing exponential curve, (2) Curve with stem deficit in at least one diameter class, (3) Bell curve marked by small diameter stem deficit)

*** (IA) Harvesting prohibited by ministerial decree.



Annexures / 1.5 Managing conflicts over land use rights



Social conflicts 2018 - 2022		
Year	Village / community	Resolved
2022	Péni 2	YES
	Péni 2	Pending
	Dianongo*	Pending
	Yeno*	Pending
2021	Azendjé	YES
	Péni 2	YES
	Doussala	YES
2020	Péni 1	YES
	Péni 2	YES
2019	Idemba	YES
	Péni 1	YES
2018	Mandji	YES
	Idemba	YES

* Conflict solution in progress, conflict dates back to 2018

Annexures / 1.6 What is High Conservation Value

- **HCV 1 – Species diversity.** Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.
- **HCV 2 – Landscape-level ecosystems and mosaics.** Intact forest landscapes and large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional, or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.
- **HCV 3 – Ecosystems and habitats.** Rare, threatened, or endangered ecosystems, habitats or refugia.
- **HCV 4 – Critical ecosystem services.** Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.
- **HCV 5 – Community needs.** Sites and resources fundamental for satisfying the necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or indigenous peoples.
- **HCV 6 – Cultural values.** Sites, resources, habitats, and landscapes of global or national cultural, archaeological, or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.

Annexures / 1.7 Our solutions to waste management

Type of waste evacuated *	2018	2019	2020	2021	2022
Ink cartridges (units)	59	96	76	96	71
Batteries (units)	131	70	177	144	41
Motor oil (litres)	48600	10800	13800	29600	12400
Oil filters (Barrels)	12	14	94	107	160
Oil contaminated soils and rags (Barrels)	15	9	15	6	10
Brake pads and other maintenance substances (Barrels)	19	8	37	14	12
Hydraulic flexi tubes (Barrels)	2	2	2	4	2

* To maximize efficiency, waste of a current year can be stored until there are sufficient quantities and evacuated the following years



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