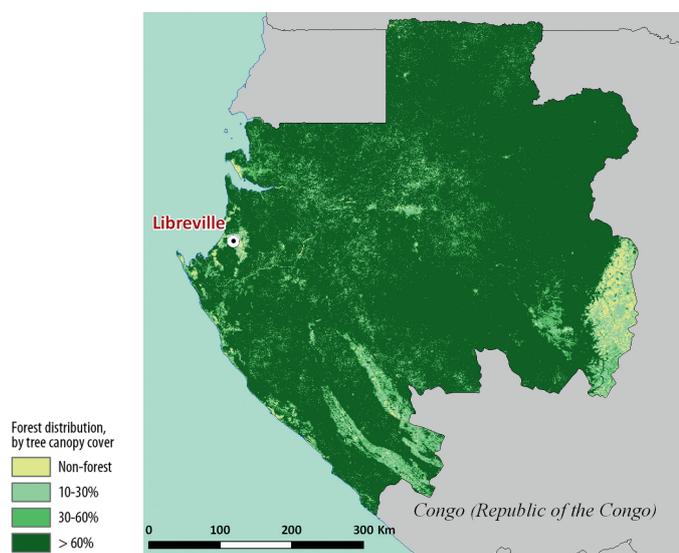


# GABON



## Forest resources

Gabon has a land area of 26.8 million hectares and an estimated population in 2010 of 1.5 million people (United Nations Population Division 2010). It is ranked 103rd out of 182 countries in UNDP's Human Development Index (UNDP 2009). The country is in the western part of the Congo Basin and is characterized by three biogeographic regions: a coastal sedimentary basin containing forest and savanna; a medium-altitude Precambrian plateau (averaging 600 m above sea level), which covers about two-thirds of the country and is largely forested apart from savanna in the east; and almost entirely forested granite massifs in the north and south – Cristal Mountains, Mayombe and Chaillu – where altitudes range between 800 m and 1000 m. FAO (2010) estimated Gabon's total forest area at 21.7 million hectares, which is nearly 85% of the land area, and de Wasseige et al. (2009) estimated

it at about 24.6 million hectares. Gabon has an estimated 160 000 hectares of mangroves (Spalding et al. 2010).

**Forest types.** There are three major forest types: evergreen rainforest in the west, which has been heavily harvested, degraded and in some areas reduced to secondary forest characterized by an abundance of *Aucoumea klaineana* (okoumé) and *Dacryodes buettneri* (ozigo); the central Gabonese forest, covering most of the country, which is very similar to the closed humid forest found elsewhere in the Congo Basin and also in Liberia, with many of the same tree species (e.g. *Canarium schweinfurthii* – aiélé, *Lophira alata* – azobé, *Entandrophragma* spp, *Khaya* spp and *Triplochiton scleroxylon* – ayous); and a semi-deciduous forest type in the northeast, characterized by a predominance of Maranthaceae in the sub-layer and trees such as *Terminalia superba* (limba), *Millettia laurentii* (wengé) and ayous.

**Permanent forest estate.** The PFE is estimated at 13.5 million hectares (Table 1).<sup>a</sup>

## Forest ecosystem health

**Deforestation and forest degradation.** With a low overall population density and 60% of the population living in urban areas, there is little anthropogenic pressure on Gabon's forests. The Government of Gabon (2008) indicated an average annual deforestation rate of 0.12% (about 10 000 hectares per year) and an average degradation rate of 0.09%, based on satellite coverage between 1990 and 2000. Most of the forest estate is still composed of primary forest (Table 2). The main causes of deforestation are small-scale agriculture established

Table 1 Permanent forest estate

Reporting year	Estimated total forest area, range (million ha)	Total closed natural forest ('000 ha)	PFE ('000 hectares)			
			Production		Protection	Total
			Natural	Planted		
2005*	25.8	21 800	10 600	25	2700	13 325
<b>2010</b>	<b>21.8–24.6</b>	<b>18 700</b>	<b>10 600<sup>a</sup></b>	<b>25<sup>a</sup></b>	<b>2900</b>	<b>13 525</b>

\* As reported in ITTO (2006).

Table 2 Forest condition

	PFE	Non-PFE	Total
	'000 ha		
Area of primary forest	-	-	20 400
Area of secondary forest and degraded primary forest	-	-	4200
Area of degraded forest land*	-	-	-

Source: ITTO estimate.

along the roadways and urban development. The main causes of forest degradation are industrial mining and illegal logging in opened-up areas.

**Vulnerability of forests to climate change.** Given its low population density and large forest area, Gabon is less vulnerable to climate change than many other countries in Africa. The mean annual temperature has increased by 0.6 °C since 1960, an average rate of 0.14 °C per decade. Model projections all indicate increases in the frequency of 'hot' days and nights (McSweeney et al. undated). Mean annual rainfall has decreased at an average rate of 3.8 mm per month (2.6%) per decade since 1960. All models indicate a considerable decrease in rainfall over the next 50 years (ibid.).

### SFM policy framework

**Forest tenure.** All forest is owned by the state (Table 3). The 2001 Forest Code divides forests into two distinct categories. The first includes the production PFE managed by private concessionaires and the protection PFE managed directly by the state. The second, the non-PFE, known as the *domaine rural*, includes open-access forests for hunting, agriculture, mining and the gathering of NTFPs; sacred forests; and community protected areas (generally land and forest for which usage rights are limited to local communities). Rural communities and forest-dwellers are free to exercise

their customary rights in the *domaine rural*, provided they respect all conditions imposed by the forest administration. The production PFE is exclusively owned and administered by the state.

**Criteria and indicators.** Gabon finalized its own set of PCI in 2006 on the basis of the ATO/ITTO PCI for the sustainable management of African natural tropical forests. Since then Gabon has worked to develop a country-wide certification system and has harmonized its PCI with the standards set by the Program for Endorsement of Forest Certification schemes (PEFC). The orientation of the timber sector towards export markets, particularly environmentally sensitive European markets, helps to explain interest in certification.

**Forest policy and legislation.** Forest and wildlife management are governed by the Forest Code (Law 16/01), which was enacted in December 2001. The Code contains two major elements: SFM, and forest industry development (including the allocation of forest concessions and fiscal aspects). It also provides for the creation of community forests (Article 156). A 2008 decree (011/PR08) modified certain elements of the Forest Code, including the abolishment of the monopoly of the state-owned *Société Nationale des Bois du Gabon* (SNBG), the commercialization of okoumé and ozigo and the process for the allocation of forest permits. Other

Table 3 Forest area, by tenure

Ownership category	Total area	Of which PFE	Notes
	'000 ha		
State ownership (national, state or provincial government)	13 500	13 500	Production and protection PFE.
Other public entities (e.g. municipalities, villages)	8300	0	Area owned by the state, but with extended user rights (non-PFE, <i>domaine rural</i> ).
<b>Total public</b>	<b>21 800</b>	<b>13 500</b>	
Owned by local communities and/or Indigenous groups	-	-	Could include sacred forests, but their extent is unknown.
Private owned by individuals, firms, other corporate	-	-	Some small plantations, community or privately owned, but no data are available on their extent.

Source: Government of Gabon (2009).

important legal texts are the 1993 Environment Law (Law 16/93), the Mining Code (Law 05/2000) and the land-ownership regime, which dates back to 1963 (Law 15/63). A law approved in 2007 (Law 003/2007) governs the management of national parks.

Gabon's forest policy was adopted in May 1996. It focuses on maximizing the economic contribution of forests while ensuring a lasting resource base through the implementation of forest management programs and national capacity-building. Phase 1 of the policy (1998–2002) focused on the preparation of forest management plans and the establishment of sustainable management standards. Phase 2 (2002–10) focuses on the nationwide implementation of the plans. The initial aim to have 4 million hectares under management plans by 2010 was almost achieved; there is a further aim that 5 million hectares will be under SFM by 2025. Under the forest policy the government also plans to have a total of 200 000 hectares of private-sector and state-managed plantations by 2025.

**Institutions involved in forests.** The Ministry of Water and Forests (*Ministère des Eaux et Forêts* – MEF) was created in January 2011 with a mission to develop and implement the government's policy on fisheries, forests, wildlife and protected areas (excluding national parks, which are managed by a separate agency). The ministry in charge of forests has changed several times in the last three years, from the Ministry for Forest Economy, Inland Waters and Fisheries in Charge of the Environment and National Parks (*Ministère de l'Économie Forestière, des Eaux, de la Pêche, Chargé de l'Environnement et des Parc Nationale*), to the Ministry for Forest Economy, Inland Waters, Fisheries and Aquaculture (*Ministère de l'Économie Forestière, des Eaux, de la Pêche et de l'Aquaculture*), to the Ministry of Inland Waters, Forests, Environment and Sustainable Development (*Ministère des Eaux et Forêts, de l'Environnement et du Développement Durable*).

MEF has four technical directorates: the General Directorate of Forestry (*Direction Générale des Forêts*); the General Directorate for Wildlife and Protected Areas (*Direction Générale de la Faune et des Aires Protégées*); the General Directorate for Aquatic Ecosystems (*Direction Générale des Écosystèmes Aquatiques*); and the General Directorate of Forest Industries, Timber Trade and Value Addition of Forest Products (*Direction Générale des*

*Industries, du Commerce du Bois et de la Valorisation des Produits Forestiers*). At time of publication the Cabinet was considering a restructure of the MEF, including a possible reduction in the number of directorates to three.

The Ministry of Environment, Sustainable Development and Nature Protection, Prevention and Management of Natural Disasters (*Ministère de l'Environnement, du Développement Durable et de la Protection de la Nature, Prévention et Gestion des Calamités Naturelles*) is in charge of the development of REDD+. In 2007 the Agency for National Parks (*Agence Nationale des Parcs Nationaux* – ANPN) was created to manage protected areas under the Ministry of Tourism and National Parks.

Besides the technical agencies, a number of other actors are involved in the development of SFM, including the state timber enterprise, SNBG, which is now under MEF and which, until recently, had a monopoly over the export of logs of the two main species, okoumé and ozigo. There are five research institutions dealing with forest-related issues and one forest training institute, *Ecole Nationale des Eaux et Forêt*; the later operates under the auspices of MEF. International development partners (the European Union, the French Development Agency – *Agence Française de Développement*, and USAID) are strong supporters of Gabon's forest reform agenda, as are international environmental NGOs such as the Wildlife Conservation Society, WWF and the World Resources Institute, and national civil-society organizations such as Brainforest and *Croissance Saine*. The Government of Gabon is an active member of COMIFAC; it also has an agreement with Global Forest Watch to support the monitoring of illegal logging in the country.<sup>a</sup>

## Status of forest management

### Forest for production

In the production PFE, all concessionaires must, within three years of allocation, submit a forest management plan that includes timber and wildlife management and socioeconomic studies. It must also include consultation between concessionaires, the forest administration and local people. Two types of management permits are issued:

- Forest concession under SFM (*concession forestière sous aménagement durable* – CFAD),

which has a minimum size of 50 000 hectares and a maximum size of 600 000 hectares. A CFAD must have a forest management plan and an industrialization plan and is awarded through auction.

- Associated forest permit (*permis forestier associé* – PFA), which is also awarded by auction but is reserved exclusively for Gabonese nationals. A PFA can be integrated into an existing CFAD or managed on its own as a concession. The minimum size is 15 000 hectares and the maximum size is 50 000 hectares.

Under the 2001 Forest Code, forest in the *domain rural* (non-PFE) may be set aside as community forests. Community forests should be managed for timber and NTFPs according to a simplified forest management plan developed with support from the DGF. The community must prepare supply contracts with local processing companies (de Wasseige et al. 2009). Cutting permits are also available to Gabonese nationals in the non-PFE for up to 50 trees.

The forest area open to timber harvesting has been divided into three zones. The first comprises the coastal plains and is rich in okoumé and characterized by relatively easy transport. Most of this zone has been harvested 1–3 times since the end of the 19th century (ITTO 2006). The second zone is less rich in okoumé and access is more difficult. It has now been almost completely harvested for the first time (ibid.), facilitated by the establishment of the *Transgabonais*, the railway that has granted access to a large part of the centre and east of the country. Still less okoumé is found in the forests of the third zone, where the species reaches the limits of its distribution.

There has been a significant increase in the area of forest allocated for production since 2005, including apparently outside the PFE. In March 2009, 48 concession areas were leased over a total area of 10.3 million hectares and another 212 other permits were also active over an area of about 3 million hectares.<sup>a</sup> In 2010 an estimated 6.27 million hectares of production forests were active as industrial timber production areas<sup>a</sup>, up from 4.55 million hectares in 2002 (ITTO 2006). In 2002 about 1.46 million hectares of forest were covered by forest management plans (ibid.) but, in March 2009, 4.14 million hectares had been inventoried and about 3.45 million hectares had fully developed



An example of limba in production forest, Gabon.

and approved management plans.<sup>a</sup> As of 2009, ten foreign operators had the lion share of industrial concessions in Gabon – they were from Europe (France, Italy and Portugal), Asia (China, India and Malaysia) and Lebanon. World Resources Institute (2009) contains a detailed analysis of the forest concessions in Gabon.

**Silviculture and species selection.** Timber harvesting is selective and focuses on high-value species. At present, only 4–5 m<sup>3</sup> is extracted, on average, per hectare. In the first and second harvesting zones this is due to previous overcutting of okoumé; in the third, high transport costs mean it is only economically viable to harvest the most valuable tree species. Table 4 shows the five most harvested species in the past few years. Ayous, *Testulea gabonensis* (izombe), *Guibourtia demeusei* (kevazingo), *Piptadeniastrum africanum* (dabéma) and *Baillonella toxiperma* (moabi) are among a number of species that are being harvested in increasingly large volumes. It is anticipated that the number of species acceptable to international markets will continue to increase from the current 20 or so to 35–40 species in coming years.<sup>a</sup>

The gross standing volume of trees with diameter at breast height (dbh) greater than 10 cm is estimated at 250 m<sup>3</sup> per hectare in unexploited forest and

Table 4 Commonly harvested species for industrial roundwood

Species	Notes
<i>Aucoumea klaineana</i> (okoumé)*	Average annual production of about 939 000 m <sup>3</sup> (2006–08).
<i>Triplochiton scleroxylon</i> (ayous)	Up to 40 000 m <sup>3</sup> produced annually on average (2006–08).
<i>Cyclodiscus gabunensis</i> (okan)	More than 20 000 m <sup>3</sup> produced annually.
<i>Distemonanthus benthamianus</i> (movingui)	Nearly 20 000 m <sup>3</sup> produced annually.
<i>Dacryodes buettneri</i> (ozigo)*	Production is declining, to less than 15 000 m <sup>3</sup> annually.

\* Also listed in ITTO (2006).

Source: Government of Gabon (2009).

220 m<sup>3</sup> per hectare in logged-over forest (ITTO 2006). The commercial standing volumes are 55 m<sup>3</sup> per hectare and 42 m<sup>3</sup> per hectare, respectively.

Generally, forest resources can be divided into two main categories: forests with okoumé and ozigo, which regenerate well, and forests without large amounts of those two species. In its range, okoumé is the predominant species, with an average standing volume of about 10 m<sup>3</sup> per hectare. A specific silvicultural system is applied in okoumé forests, the *méthode okoumé*, based on favouring natural regeneration and continuous thinning until there are 80 stems per hectare with a dbh of over 70 cm. Gabonese forests regenerate well and, if management prescriptions are followed, they will maintain their productive value over several rotations (Drouineau & Nasi 1999).

While the number of hardwood species being used by industry is increasing, to a large extent the financial viability of SFM is based on the high quantity and quality of okoumé. The appropriate silvicultural management of okoumé forest is therefore important for ensuring the continued abundance of this species because it is the backbone of Gabon's forest development. There are signs, however, that silvicultural treatments are not being conducted to the full extent needed (de Wasseige et al. 2009).

#### Planted forest and trees outside the forest.

Planted forests cover about 25 000–30 000 hectares (Government of Gabon 2009; de Wasseige et al. 2009). The government plans to increase the area of planted state forest to 100 000 hectares and to promote the establishment of an additional 100 000 hectares of private plantations, but planting rates are presently minimal.<sup>a</sup> Agro-industrial plantations include about 11 000 hectares of rubber and some small plots of oil palm and coconut (ITTO 2006). Reforestation and enrichment planting are generally not undertaken in logged-over forests due to the

relative ease of natural regeneration (ibid.). Existing plantations are mainly on former natural-forest sites and consist primarily of okoumé and, to a limited extent, *Terminalia superba* (limba). There are also some plantations of pines and clonal eucalypts (ibid.).

**Forest certification.** After more than five years of intensive work, the Gabonese Pan African Forest Certification Scheme (*Système Panafricain de Certification Forestière*) was endorsed for a period of three years by the PEFC Council in April 2009. This first-ever approved African national standard provides buyers with evidence that the timber they buy was harvested in well-managed forests. In addition to this overall national approach to forest certification, as of June 2010 six forest concessions, covering a total area of 1.874 million hectares, were certified under the FSC (some of them also had ISO 14001 and Keurhout certificates). A FLEGT process is under way in Gabon and the Government of Gabon has shown interest in developing a VPA with the European Union.<sup>a</sup>

#### Estimate of the area of forest sustainably managed for production.

The entire FSC-certified forest area of 1.8 million hectares and two additional forest concessions that are in a process of forest management certification and have TLTV certificates covering an area of about 622 000 hectares (de Wasseige et al. 2009) are counted in Table 5 as under SFM.

**Timber production and trade.** The total standing timber volume (dbh >10 cm) is estimated at 2.60 billion m<sup>3</sup> and the possible sustainable annual yield of potentially marketable timber species is an estimated 12–15 million m<sup>3</sup> (ITTO 2006). An estimated 3.4 million m<sup>3</sup> of industrial logs were harvested in 2009, similar to the 3.5 million m<sup>3</sup> estimated to have been produced in 2004 (ITTO 2010). Note that okoumé accounted for nearly 30% of total production.

Table 5 Management of the production PFE ('000 hectares)

Reporting year	Natural					Planted		
	Total	Available for harvesting	With management plans	Certified	Sustainably managed	Total	With management plans	Certified
2005*	10 600	6923	2310	1480	1480	25	10	0
<b>2010</b>	<b>10 600</b>	<b>10 300</b>	<b>3450**<sup>a</sup></b>	<b>1870</b>	<b>2420</b>	<b>25</b>	<b>10</b>	<b>0</b>

\* As reported in ITTO (2006).

\*\* Comprising only areas with approved management plans in March 2009.

An estimated 1.87 million m<sup>3</sup> of logs were exported in 2009, up from 1.51 million m<sup>3</sup> in 2004; 157 000 m<sup>3</sup> (roundwood equivalent) were exported as sawnwood in 2009, up from 124 000 m<sup>3</sup> in 2004. The log market for okoumé and ozinga is mainly oriented towards Asia, while dark hardwood species are often exported to Europe. In 2009 Gabon was the second-largest exporter of tropical hardwood logs (after Malaysia), Central Africa's largest timber producer and the world's largest supplier of okoumé. However, the Government of Gabon issued a ban on unprocessed timber exports in January 2010 to encourage value-adding to timber products. In mid 2008, Gabon had 48 operating sawmill facilities, nine peeling units and three plywood plants with a potential annual processing capacity of about 1.7 million m<sup>3</sup> of logs (de Wasseige et al. 2009), about half of total production.

**Non-timber forest products.** As in the other countries of the Congo Basin, many foodstuffs, including bush meat, roots, fruits, leaves and nuts, as well as medicinal plants and condiments, are collected in forests. They are an integral part of the subsistence of local people and some, such as the fruits of *Irvingia*, lianas of *Gnetum*, and plants and nuts of *Garcinia* species, are also marketed at the national level. Bamboo and fibres such as Marantaceae (rattan), raphia and the leaves of *Borassus aethiopum* (rônier) are important products

that are also traded regionally. Trade data on NTFPs were unavailable for this report. Charcoal-making supplies a small but efficient informal market (ITTO 2006). NTFPs are mentioned in the 2001 Forest Code and forest management plans must include information on the potential of NTFPs in concession areas.

**Forest carbon.** Gibbs et al. (2007) estimated the national-level forest biomass carbon stock at 3063–4114 MtC, Eggleston et al. (2006) estimated it at 4742 MtC and FAO (2010) estimated it at 2710 MtC. de Wasseige et al. (2009), taking into account all five carbon pools, estimated the forest carbon stock at about 4300 MtC. Gabon was one of the founding members of the Forest Carbon Partnership Facility and submitted a readiness idea note in 2008; by mid 2010, however, there had been no progress on a readiness preparation proposal. As laid out in Government of Gabon (2008), the government's REDD strategy includes the pursuit of sound land-use management and intensive agricultural production, including agroforestry; the strengthening of sustainably managed production forests; and the conservation of forests through effective protective-area management. The country's REDD+ potential lies particularly in the sustainable management of production and protection forests and conservation of the existing forest carbon stocks. Table 6 summarizes Gabon's forest carbon potential.

Table 6 Forest carbon potential

Biomass forest carbon (MtC)	% forest with canopy cover >60%	Deforestation/ degradation potential to 2030	Enhancement of carbon sink capacity to 2030	Forest area change monitoring capacity	Forest/ GHG inventory capacity	Importance of forest fire/ biomass burning	Engagement in international REDD+ processes
3063–4114	87	+	++	++	++	++	++

+++ high; ++ medium; + low; estimate of national forest carbon based on Gibbs et al. (2007); estimate of % total forest with canopy cover >60% based on UNEP-WCMC (2010).

## Forest for protection

**Soil and water.** No forests are set aside specifically to be managed primarily for the protection of soil and water.<sup>a</sup>

**Biological diversity.** Gabon contains more than 6500 plant species, 320 mammal species and 617 bird species. Ten mammals, two birds, one reptile, three amphibians and 47 plants found in forests are listed as critically endangered, endangered or vulnerable on the IUCN red list of threatened species (IUCN 2011). Seven plant species are listed in CITES Appendix II, none of which is a hardwood timber species (UNEP-WCMC 2011). Although Gabon is sparsely populated, some fauna species are under pressure in some areas due to an increasing demand for bush meat (ITTO 2006).

**Protective measures in production forests.** Under the 2001 Forest Code, forest management plans must include measures to protect soil, biodiversity and water resources in forest concession areas. Provisions designed to protect wildlife specify the zones where hunting is permitted and the length and dates of the hunting season. However, hunting is a major problem within and in the vicinity of forest concessions.<sup>a</sup>

**Extent of protected areas.** Gabon has 13 national parks and a special presidential park, two hunting zones and wildlife reserves – most of them forested – covering about 2.9 million hectares.<sup>a</sup> In mid 2009, four parks (Plateaux Batéké, Minkébé, Lopé and Moukalaba-Doudou) had provisional management plans.<sup>a</sup> A National Biodiversity Observation Board was created in 2000 to support the implementation of the GEF-assisted National Strategy and Action Plan for Biodiversity (ITTO 2006). With the creation of the ANPN, the national park network has clearly been strengthened. More than 2.1 million hectares of forest are now in reserves classified in IUCN

categories I–IV, compared with 570 000 hectares in 2005. ITTO and WWF continue their joint work with the government to manage the Minkébé Forest Reserve, which together with the Minkébé National Park makes up an ITTO-supported transboundary conservation area linked to the Mengame protected area in Cameroon.

**Estimate of the area of forest sustainably managed for protection.** The total protection PFE under SFM is estimated at at least 1.23 million hectares (Table 7), comprising the ITTO-supported Minkébé National Park (750 000 hectares) and the Lopé National Park (484 000 hectares, part of which is savanna). These areas (which were also classified as sustainably managed in 2005) are considered to be managed and protected effectively, although poachers continue to be a threat to these and other protected areas.

## Socioeconomic aspects

**Economic aspects.** National resource use, including oil extraction, timber harvesting and mining, is the cornerstone of Gabon's economy (de Wasseige et al. 2009). Oil alone generates 42% of GDP, followed by timber (about 6% of GDP<sup>a</sup>). The forest sector is the primary employer in the private sector with about 13 000 employees, not counting the informal sector.<sup>a</sup> The forest service itself employs about 600 officers and support staff.<sup>a</sup>

**Livelihood values.** Forests are the main source of subsistence for Indigenous peoples living in the forests of Gabon. The law stipulates that local people have free access to all forests as long as they possess appropriate customary rights and do not jeopardize the sustainability of the forest products they collect. Industrial forest management requires the consent of the local population.<sup>a</sup> Bush meat and edible fruits such as aiéle, leaves of *Gnetum* species, and nuts and roots (igname) are of great importance for forest-dependent local communities, particularly

Table 7 Management of the protection PFE ('000 hectares)

Reporting year	Protection PFE	Attributed to IUCN categories I–IV	Allocated for soil and water	With management plans	Sustainably managed
2005*	2700	570	0	491	1090
<b>2010</b>	<b>2900</b>	<b>2191**</b>	<b>0</b>	<b>1230<sup>‡</sup></b>	<b>1230<sup>†</sup></b>

\* As reported in ITTO (2006).

\*\* UNEP-WCMC (2010).

‡ Provisional management plans.

† Pertains to the same two national parks considered under SFM in 2005, but new data (World Resources Institute 2009) suggest a slightly larger park area.

Pygmies. Bush-meat availability may be threatened locally because of over-hunting.

**Social relations.** The community forests allowed under the 2001 Forest Code replace the former ‘family logging’ rights. The Forest Code specifies that there should be a zone around each production forest to accommodate the customary rights of surrounding communities. While a memorandum (*lettre de politique*) of forest policy published by the government in May 2004 indicated an intention to increase the future role of local users in community forest management, little progress has been made in the last five years to introduce community forest management.

## Summary

Undeniable progress has been made in Gabon towards SFM. The government continues to improve its legal and institutional framework to regulate and monitor production forests and to effectively manage protected areas. The 2001 Forest Code is complemented by additional regulations and field-based actions, including an improved forest monitoring system. Principles, criteria and indicators have been formulated and adapted to the conditions in Gabon and voluntary forest-management certification is well-developed. Forestry will remain one of the pillars of Gabon’s economic and social development. Based on clear policy measures from the government, the private sector is a major driver of industrial forest development and the export of semi-finished forest products. The government has introduced a system to institutionalize community forestry as a way of meeting local needs for timber and other forest products, although this system is yet to be implemented. The country is engaged in REDD+ processes, and it has a low deforestation rate. Problems remain, mainly in governance; for example, there is little civil advocacy and few participatory processes in the forest sector.

## Key points

- Gabon has a large forest resource with a relatively low risk of conversion to other uses.
- Gabon has an estimated PFE of 13.5 million hectares (compared with 13.3 million hectares in 2005), comprising 10.6 million hectares of natural production forest (the same as in 2005), 2.90 million hectares of protection forest (compared with 2.70 million hectares in 2005) and 25 000 hectares of planted forest (the same as in 2005).
- An estimated 2.42 million hectares of the natural production PFE is under SFM, including 1.87 million hectares of certified forest. An estimated 1.23 million hectares of protection PFE is under SFM.
- Forest management plans are fully developed in 3.45 million hectares of forest in concessions and were under preparation for another 6 million hectares of forest in concessions. High standards for concession management have been developed on paper, but still need to be fully introduced on the ground.
- Gabon has the largest area of certified natural forests in Africa.
- The new national park network has great potential and an increased focus will need to be given to developing and implementing long-term management plans.
- Community forests may be created in the *domain rural*, but their development has been insignificant to date.
- Management for bush meat and other NTFPs is still largely uncontrolled, even though these issues must be addressed in forest management plans.

## Endnote

a Government of Gabon (2009).

## References and other sources

- Drouineau, S. & Nasi, R. (1999). *L'Aménagement Forestier du Gabon: Historique, Bilan, Perspectives*. CIRAD-Forêt, Montpellier, France.
- Eggleston, H., Buendia, L., Miwa, K., Ngara, T. & Tanabe, T. (eds) (2006). *IPCC Guidelines for National Greenhouse Gas Inventories*. Prepared by the National Greenhouse Gas Inventories Programme. Institute for Global Environmental Strategies, Kamakura, Japan.
- FAO (2010). Global forest resources assessment 2010 country report: Gabon (available at <http://www.fao.org/forestry/62318/en/>).
- FSC (2010, website accessed June 2010). FSC Certification Database (searchable database available at <http://info.fsc.org/PublicCertificateSearch>).
- Gibbs, H., Brown, S., Niles, J. & Foley, J. (2007). Monitoring and estimating tropical forest carbon stocks: making REDD a reality. *Environmental Research Letters* 2 (available at <http://iopscience.iop.org/1748-9326/2/4/045023/fulltext>).

- Government of Gabon (2008). Readiness plan idea note. Prepared by the Republic of Gabon for the Forest Carbon Partnership Facility (available at [www.forestcarbonpartnership.org](http://www.forestcarbonpartnership.org)).
- Government of Gabon (2009). Report of progress toward achieving sustainable forest management in Gabon. Submission to ITTO by the Nsitou Mabiala, Libreville, Gabon.
- ITTO (2006). *Status of Tropical Forest Management 2005*. ITTO, Yokohama, Japan (available at <http://www.itto.int/en/sfm/>).
- ITTO (2010, website accessed December 2010). Annual Review statistics database (available at [http://www.itto.int/annual\\_review\\_output/?mode=searchdata](http://www.itto.int/annual_review_output/?mode=searchdata)).
- IUCN (2011, website accessed April 2011). IUCN red list of threatened species (searchable database available at [www.redlist.org](http://www.redlist.org)).
- McSweeney, C., New, M. & Lizcano, G. (undated). UNDP climate change country profiles: Gabon (available at <http://country-profiles.geog.ox.ac.uk/>).
- Spalding, M., Kainumu, M. & Collins, L. (2010). *World Atlas of Mangroves*. Earthscan, London, UK.
- UNDP (2009). *Human Development Report 2009*. United Nations Development Programme, New York, United States.
- UNEP-WCMC (2011, website accessed April 2011). UNEP-WCMC species database: CITES-listed species (searchable database at available at [www.cites.org/eng/resources/species.html](http://www.cites.org/eng/resources/species.html)).
- UNEP-WCMC (2010). Spatial analysis of forests within protected areas in ITTO countries. Data prepared for ITTO. 2010. UNEP-WCMC, Cambridge, UK.
- United Nations Population Division (2010, website accessed July 2010). World population prospects: the 2008 revision (searchable database available at [www.esa.un.org/unpp/p2k0data.asp](http://www.esa.un.org/unpp/p2k0data.asp)).
- de Wasseige C., Devers D., de Marcken, P., Eba'a Atyi R., Nasi, R. & Mayaux Ph. (eds) (2009). *The Forests of the Congo Basin: State of the Forest 2008*. Publication Office of the European Union, Luxembourg.
- World Resources Institute (2010, website accessed March 2011). Interactive forest atlas for Gabon (*Atlas Forestier Interactif de la Gabon*) (available at <http://www.wri.org/publication/interactive-forestry-atlas-gabon>).