

INTERNATIONAL COOPERATION FOR THE PRESERVATION OF GABON'S FOREST ESTATE: WWF CASE STUDY (1991-2007)

Emmanuel NDZENG NYANGONE

Université Omar Bongo

Maître-assistant (CAMES)

ndzengnyangone@hotmail.com / ndzengemmanuel@gmail.com

Abstract

This retrospective article sheds light on the keys to appreciate the World Wild Fund (WWF) for Nature support on strengthening Gabonese forest policies for sustainable development. Central African country located on the Atlantic coast, Gabon, whose forest domain covers 88% of its territory, is recognized as the first African country with the largest forest area (as a percentage of the territory, i.e. 90.04%). This forest domain, very rich in exceptional biodiversity and invaluable exploitable natural resources, faces more serious threats to its biodiversity of global importance. These threats are due to extractive concessions (Forestry, Mining, and Agribusiness), hunting, community development, networking of basic infrastructure, etc. Concerned by the issue of the need to exploit this forest domain for development and conservation, Gabon sought the expertise of WWF with a view to implementing sustainable development policies and the principles of a green economy. This resulted to the establishment convention on September 12, 1991, based on an ideological-legal basis. Sixteen years later, this support allowed, although hardly perceptible, the identification of eco-regions, the strengthening of environmental regulatory texts, the design and dissemination of environmental education, the training of human resources in environmental conservation, the creation of thirteen national parks in 2002 and the National Agency for National Parks (ANPN) in 2007 to ensure their protection.

Key words: *Gabon – WWF – Cooperation – Gabonese forest – Nature conservation – Sustainable development – Green economy.*

Résumé

Cet article rétrospectif met en lumière les clés d'appréciation de l'appui du Fond Mondial pour la Nature au renforcement des politiques forestières gabonaises pour un développement durable. Pays d'Afrique centrale situé sur la côte atlantique, le Gabon, dont le domaine forestier couvre 88% de son territoire, est reconnu comme le premier pays africain disposant la plus grande surface forestière africaine (en pourcentage du territoire, soit 90,04%). Ce domaine forestier, très riche en biodiversité exceptionnelle et en ressources naturelles inestimables exploitables, fait face à des menaces de plus sérieuses qui pèsent sur sa biodiversité d'importance mondiale. Ces menaces sont le fait des concessions extractives (Forestière, Minière, Agroindustrielle), de la chasse, du développement communautaire, du maillage des infrastructures de base, etc. Préoccupée par la problématique de la nécessité d'exploitation de ce domaine forestier pour le développement et sa conservation, le Gabon sollicita l'expertise du WWF en vue de mettre en place les politiques de développement durable et les principes d'une économie verte. Il en est résulté la convention d'établissement du 12 septembre 1991, fondée sur un socle idéologico-juridique. Seize ans plus tard, cet appui permit, bien que difficilement perceptible,

l'identification des écorégions, le renforcement des textes de réglementation environnementale, la conception et la diffusion de l'éducation environnementale, la formation des ressources humaines en matière de conservation environnementale, la création de treize parcs nationaux en 2002 et de l'agence nationale des parcs nationaux (ANPN) en 2007 pour veiller à leur sauvegarde.

Mots-clés : Gabon – WWF – Coopération – Forêt gabonaise – Conservation de la nature – Développement durable – Economie verte.

Introduction

Interest in the world's forests continues to grow as the questions they raise touch on many global and national issues. Emerging in 1968 with the ideas of the Club of Rome¹, four years later the United Nations took up the interest that the world's forests were now arousing at the Stockholm conference in 1972. This was the first signal from the international community on the problem of the conservation of the world's forests. The Rio de Janeiro Earth Summit in 1992 reaffirmed the Stockholm Declaration. Since then, deforestation has been one of the major concerns of the international community. International non-governmental organizations are not on the sidelines of this concern. In the absence of clearly defined forest policies by the governments, they made environmental issues their priority area of intervention. This led to the evolution of debates on forests rational exploitation and forest conservation methods directly articulated with the orientation of national policies. This is the case of the World Wild Fund (WWF) for Nature.

In this challenge involving all of humanity, Gabon, a country with an area of 267,677 km² whose forest area covers 88% of its territory, plays an important role in these debates because of its ecological potential. Concerned by the mismatch between its highly extractive economy and the rational and sustainable exploitation of its forest estate, Gabon turned to the WWF, present on its territory since 1985. This resulted to the Convention n° 00628 of September 12, 1991, related to the establishment of the WWF in the Republic of Gabon, based on an ideological and legal foundation.

¹It is before its time think-tank, created in 1968 by the Italian Aurelio Pececi. It brings together scientists, ecologists, academics and ecologists. Its objective was to identify and analyze the cause of climate instability and the major global problems of this era, without distinction of country, wealth gap, development, etc. His first feat of arms was the Meadows Report issued in 1972. The title was unequivocal: *Limits to growth*. For many, this report is the foundation of modern ecological thought and the founding text of the concept of sustainable development (Cf. Meadows Dennis, Meadows Donella, Randers Jorgen (1972), *Les limites à la croissance*, Traduction française d'Agnès El Kaïm, Montréal, éco-société, 205 pages; Nations Unies (1987), Commission mondiale sur l'environnement et le développement, *Rapport Brundtland* « Notre avenir à tous », 349 pages).

Sixteen years later, it seems necessary and legitimate to question the WWF's contributions, hence the interest of this article. It does not intend to retrace, in detail, the rich history of cooperation between Gabon and the WWF or to carry out any critical analysis of Gabonese forest policies. Its ambition is to contribute to the writing of the history of international relations in Gabon; participate in the contemporary debate on sustainable development at a time when the depletion of oil, the main resource of the Gabonese economy, requires economic diversification in this country; report on WWF's contributions (although hardly perceptible); assess their effectiveness and efficiency in terms of rational exploitation of the Gabonese forest estate.

Based on a varied documentary corpus² submitted to the critical method of historical science³, political approach⁴ of Political Science and green political⁵ of International Relations, this article

² It is made up of state and institutional sources supplemented by scientific articles, a varied bibliography and journals.

³ The critical method of history is a work that the historian applies to documents to arrive at historical truth. In other words, it makes it possible to validate the facts explained and their spatiotemporal situation. As such, it includes a series of technical operations that are grouped into two parts. First, the external review, which is the authentication review of the document. This consists of establishing the authenticity or originality of the document in order to certify the veracity of the information contained therein. Then, the internal criticism, which is the interpretation of facts, allowed the historian to determine the exactitude of facts.

⁴ The political approach seeks to know how life in society is organized. He is therefore interested in regulations and power relations. In other words, she is interested in political processes involving power relations between individuals and groups, international relations, legal and administrative rules and the history of political ideas. It allows us to analyze here Central African State's governance problems.

⁵ Green political (political ecology in French) was born in the 1970s in response to the rise of transnational issues related to the environment. It is a cultural approach applied to the ecology of the human species (a species that resorts to politics to ensure its future and that of its descendants). It can be considered as a behavioural ethic, aspiring to more harmony, autonomy, solidarity and responsibility. As a determining element of social policy, political ecology takes into account the consequences of human actions in the habitat and of our actions on our environment, not only ecological, but also human, social and societal. With in particular the negative impact on physical and mental health, that of others, and that of future generations.

More than a policy, it is a scientific approach which, for 10 to 15 years, has been at the heart of studies on the environment and development, especially in the context of Anglo-American geographical and anthropological studies. Solidly rooted in environmentalism, scientific political ecology is a booming field of knowledge. It is built in opposition to a-political ecology, in which the problems of degradation would be purely bio-physical or even technical. It also opposes neo-Malthusian visions in which overpopulation is the main cause of environmental degradation. It is interdisciplinary, although much of the work and debate occurs in human geography journals (*Progress in Human Geography; Annals of the Association of American Geographers; The Geographical Journal, Geoforum, etc.*).

Green political essentially analyzes power and power struggles in environmental management, which makes it necessary to focus on the various actors in the environmental sector and the interests they represent, as well as on the discourses establishing the prevailing mode of understanding of the themes and problems concerned. Moreover, this approach involves analyzing how attacks on the environment and measures to safeguard it entail specific modes of distribution of benefits and costs between various social groups. It also makes the production of knowledge about the environment an object of analysis. Indeed, research on the environment is never completely objective, even if it takes advantage of the objectivity of the natural sciences. One of the major challenges of green politics is to understand the causes of conflicts related to natural resources and the environment. Instead of sticking to narrow analyses of each discipline, this approach aims to provide a deeper understanding, based on a combination of elements drawn from various approaches, which involves the

reveals the ideological foundations of WWF's support to Gabonese government' orientation towards the rational exploitation of its forest domain and its significant benefits. To notice it, this article is articulated around three axes: the foundations of WWF action in Gabon, effectiveness and efficiency of WWF of this action.

I. Foundations of WWF action in Gabon

Interest in the world's forests continues to foster public opinion increasingly concerned with reconciling environmental preservation and social protection with economic performance. Gabon has not been on the sidelines of this public opinion, with regard to the socio-economic, ecological and scientific interest of its forest estate which forges its identity. Having the largest African forest estate⁶, its forest policies resulted until the beginning of the 1990s from the balance between urgent socio-economic needs allowing extractive concessions (Forestry, Mining, and agribusiness), hunting, community development, networking of basic infrastructure and the necessity to conserve its exceptionally rich forest estate. Indeed, this forest estates one of the central Africa's abundant and exceptional biodiversity⁷. This exceptional biodiversity insures ecological and scientific function. Indeed, the dense forest of the Congo Basin, of which the Gabonese forest heritage is part, stores and absorbs the carbon emitted by anthropogenic activities⁸. It also serves as the main reservoir of the planet's biodiversity and makes it possible to obtain more reliable information on the various parameters that underlie the ecological functioning of ecosystems. It is moreover rightly that the head of Global Environment Fund, Carlos Manuel Rodriguez,

consideration of natural parameters as well as social (Cf. Reed P. et Rothenberg D., *Wisdom in the open air : the Norwegian roots of deep ecology*, Minnesota, Minnesota University Press, 1993, 268 pages ; Tim Forsyth (2003), *Critical Political Ecology: The Politics of Environmental Science*, Londres, Routledge, 323 pages ; Benjaminsen, T. & Svarstad, H. (2009). *Qu'est-ce que la « political ecology » ?* *Natures Sciences Sociétés*, 17, 3-11). This theory highlights here the ideological and legal basis of the Gabon-WWF partnership.

⁶ As a percentage of the territory, i.e. 90.04% (See, Food and Agriculture Organization of the United Nations, [On line] <https://atlasocio.com/classements/geographie/forets/classement-etats-par-surface-forestiere-pourcentage-afrique.php> (Viewed on 08/05/2022)).

⁷ Its endemism rate is one of the highest in equatorial Africa (Cf. Cellule Nationale de Coordination du PAFT-GABON, *Atelier National du Programme d'Action Forestier Tropical du Gabon*, « Gestion Durable des Ecosystèmes Forestiers du Gabon, Problématiques, Approches consensuelles », Libreville, 17-19 Février 1998).

⁸ That is 250 billion tons of carbon, just through its trees (without taking into account the organic way of the soil). This corresponds to 90 years of global greenhouse gas emissions at current levels (See, Lomba Mousoutou Nathalie (2002), « Le Gabon et les politiques internationales en matière de protection de l'environnement de 1972 à 2002 », *Mémoire de Maîtrise Histoire des Relations Internationales*, Université Omar Bongo, p.1).

declared⁹ "Without the Gabonese forest, there would be no more rain in certain parts of Africa, and without the forest of the of the Congo we will never be able to reach the objective of 1.5 degrees of maximum warming set by the Paris agreement on the climate¹⁰".

Apart from these ecological and scientific interests, the Gabonese forest has invaluable natural resources, such as niobium, copper, zinc and many others which are still untapped (Mombo J. B., 1997, pp.19-22), hence its national and international socio-economic function. Indubitably, the products extracted from the forest bring many benefits. They provide rural people with everything they need for housing, health care, food, fuel and the acquisition of monetary income. Also the forest is the living space of different groups of individuals. It is home to sites and landscapes of high cultural and spiritual interest. In addition, the forest contributes to government revenue. Through logging, essential capital for the national economy and the development of the country is provided.

Consequently, face with more serious threats to the Gabonese forest estate of global importance, which already aroused particular interest during the colonial era¹¹, the Gabonese authorities have never spared any effort. Thus, after its access to international sovereignty on August 17, 1960, the country demonstrated its ecological ideal. When it was forced (at the beginning of the 1990s) to sketch out the diversification of its economy, which was strongly dominated by oil¹², which was running out, this ecological ideal was not put on the back burner. This is why it sought in 1991 the WWF's expertise, with which it shares the same ecological ideal.

⁹Former Costa Rica's Minister of environment (country known for its biodiversity and its green" tourism).

¹⁰Serge De Schryver, « Comment et pourquoi les forêts assurent la stabilité du climat », [On line] https://kzhome.info/crone/xnl_r5V2ioyohKs/comment-et-pourquoi-les-for-ts-assurent-la-stabilit-du-climat (Viewed on 08/05/2022)

¹¹Décret n°46-1161 du 20 mai 1946, fixant le régime forestier en Afrique Équatoriale Française (AEF) et Loi n°28/60 du 8 juin 1960, réglementant l'exercice de la chasse.

¹² Oil has always held a preponderant place in Gabonese economy, which earned Gabon's qualifier of "black emirate" during the 1970s and 1980s oil boom. At this time, Gabon made significant progress in terms of development to the point of become an upper-middle-income country and one of the richest countries in sub-Saharan Africa. Encouraged by the strong demand for oil on international market, Gabon confined itself to the extractive economy, less local employment creator. Extremely vulnerable to external shocks (crises: economic, financial, food, etc.) and exposed to exogenous factors beyond its control (fluctuations in world market prices. of its export products), this strong dependence on extractive resources naturally weakened its economy for a long time (See, Ndzeng Nyangone E. (2022), « La diplomatie économique : cheval de bataille de mise en œuvre du PSGE depuis 2012 », *Revue Della/ Afrique*, Tome 3, Vol.4, N°9, mars 2022, pp.77-92.p.80).

1.1. Ecological ideal shared by both partners

In the post-independence African context where the majority of governments had few means for the implementation of nature conservation actions, Gabon stood out by reaffirming its ecological ideal. Therefore, it gradually formalized environmental regulations through adoption of several legal texts. These include, among others, decree n°1051/PR of 30 September 1972 creating a ministry of environment and reforestation, responsible for relations with national office for woods and civic services; decree n° 1/82 of July 22, 1982 (known as the orientation law on water and forests); decree n° 25/87 of July 29, 1987, authorizing the ratification of the African Convention for the Conservation of Nature and Natural Resources of September 15, 1968 at Algiers. Although tarnished for decades by its extractive economy, this ecological awareness of Gabon has been enriched by the creation of scientific institutions¹³ and especially by adoption of the concept of sustainable development¹⁴.

Formulated by the United Nations on basis of international community's interest in world's forests, sustainable management means the stewardship and use of forests and woodlands in a manner and at such an intensity that they maintain their biological diversity, their productivity, their capacity for regeneration, their vitality and their ability to satisfy people's present needs and those of future generations, bay using sustainably forest resources¹⁵.

In other words, sustainable development refers to sustainable forest management defined by the Helsinki process¹⁶ as the management of permanent forests with a view to clearly defined objectives concerning sustained production of desired goods and services without impairing their intrinsic value or jeopardize their future productivity and without causing adverse effects on the physical and social environment. The particularity of sustainable development (which evidence is forest management) is therefore to reconcile economic, social and ecological constraints: three dimensions constituting an economically efficient virtuous circle¹⁷, socially

¹³ In particular the national anti-pollution centre (NAC) created in 1976 and the Institute for Research in Tropical Ecology (IRTE) created in 1979.

¹⁴Loi no16/93 du 26 aout 1993, relative à la protection et à l'amélioration de l'environnement.

¹⁵ Organisation Internationale pour les bois tropicaux (OIBT), Définition adoptée par le Conseil International des Bois Tropicaux, 1992.

¹⁶Conférence ministérielle sur la protection des forêts en Europe », Résolution H1, Helsinki, 17 Juin 1993.

¹⁷ Sustainable development prevents economic growth from being distorted to the detriment of the environment and society by modifying production and consumption patterns that are harmful to the environment and society.

beneficial¹⁸ and ecologically sustainable¹⁹. This means that it makes it possible to meet the needs of current generations without compromising the ability of future generations to meet theirs²⁰. Also, it allowed knowledge's vulgarization on the maintenance of major global ecological balances. For humanity's higher interest, these economic, social and ecological constraints must not be subordinated to one another. If it is admitted that sustainable development is not a state of equilibrium, it nevertheless has the merit of being a process in which the exploitation of natural resources and the investments choices are determined according to current and future needs.

To sum up, it is an awareness of the importance of Earth preservation, its natural resources, its ecosystems, its atmosphere, etc. It is a major societal issue that very strongly challenges the economy in its methods of production and consumption: we thus speak of a green economy, an economy that leads to an improvement in human well-being and social equity, while significantly reducing environmental risks and resource scarcity. It is linked to the preparation and implementation of sustainable management decisions based on analyzes of technical and scientific knowledge available to achieve societal and objectives.

Gabon shares this ecological ideal and sustainable development with the WWF, an international non-governmental organization, non-profit and under Swiss law. WWF was founded on April 29, 1961 by British biologists Sir Julian Sorell Huxley, Peter Markham Scott, Guy Mountfort and Edward Max Nicholson in the context of independences in French-speaking Africa. This nature conservation and sustainable development organization has the mission to stop the degradation of the planet's natural environment and to build a future where humans live in harmony with nature, through the conservation of biological diversity, the sustainable use of renewable natural resources and the promotion of sustainable production and consumption patterns²¹.

¹⁸Sustainable development fights against poverty, social inequalities, exclusion, and many other social ills, thanks to the improvement of worker training, generalized access to goods and services, etc.

¹⁹ **Sustainable development is concerned with the environmental impact.**

²⁰Nations Unies, Commission mondiale sur l'environnement et le développement (1987), « Rapport Brundtland : *Notre avenir à tous* », p.40.

²¹The idea of an organization to raise funds in order to help endangered animals in Africa was first proposed in 1961 by Victor Stolan following Julian Huxley's articles published in *The Observer*, relating to the degradation of large East Africa's fauna due to the hunting (See, Wapner Paul Kevin (1996), *Environmental Activism and World Civic Politics*, New York, State University of New York Press, p.76 ; Courtney Roger (2002), *Strategic Management for Voluntary Nonprofit Organizations*, London and New York, Routledge, p.235 et Chartier Denis et Deléage Jean-

In this task, it has played multiple functions as a funder, adviser (technical, scientific, educational) and actor in the field. Its financial resources come mainly from: its members, commercial promotional activities (magazines and fetish objects), government subsidies, partnerships with companies that are resolutely committed to protecting the environment²² and many others. This means that its influence around the world has continued to expand since its creation, to the point of becoming one of the most important international environmental NGOs on the planet. This notoriety is essentially due to its millions of supporters around the world, colossal financial resources, scientific expertise in environmental matters and its field operations around the world²³. Consequently, Gabon, in its approach to strengthen sustainable development policies and the principles of a green economy, could not ignore the central role of WWF. This resulted to the signing of establishment agreement September 12, 1991.

1.2. Well-defined legal basis

WWF's presence in Gabon is based not only on a shared ecological ideal, but also on legal commitments recorded in the establishment agreement of September 12, 1991. This agreement, binding the two parties for a period of five years recoverable by tacit renewal, stipulates that they agree to cooperate and consult each other in matters of nature conservation, in particular natural habitats, fauna and flora. They also agree to define joint programs of activity relating to the protection of nature²⁴ and to settle through diplomatic channels any conflict that may arise between them.

WWF undertakes to participate in the realization of specific projects which will be retained by mutual agreement; to provide financial and technical support for ecological studies and projects approved by the Gabonese government; to develop and execute projects by integrating its experts into Gabonese researchers teams; to be able to negotiate specific additional project agreements with other ministries and/or government agencies²⁵.

Paul (2010), « Mise à jour des écologies politiques pour une politique de l'anthropocène », *Écologie & politique*, vol. 40, n° 2, pp. 15-20).

²²*Idem*.

²³World Wildlife Fund, « Rapport annuel 2013 » [On line] http://d2ouvy59p0dg6k.cloudfront.net/downloads/ar2013_v15_lr_1.pdf (Viewed on 08/05/2022).

²⁴Convention n°00628 du 12 septembre 1991, relative à l'établissement de la *World Wild Fund* (WWF) en République Gabonaise, article I

²⁵*Ibid*, article II.

Also, the WWF undertakes to consult the Gabonese Government on the responsibilities and attributions in Gabon of its personnel; to inform Gabon's authorities within the framework of WWF's national office in Libreville; about the arrival at WWF's national office in Libreville of any employee working in another country; to take all appropriate measures so that employees, advisers and consultants do not engage in activities incompatible with their goals and Gabonese law; to contribute to the training of Gabonese technical staff and researchers within the framework of specific projects and missions presented by Gabonese Government in consultation with the WWF; to ensure the publication of work and reports of projects in French and to submit them obligatorily in triplicate to the Ministry of Water and Forests²⁶.

On its turn, Gabon undertakes to make Gabonese experts available for WWF (if necessary); to exempt from customs duties and taxes on any WWF's equipment use such as motor vehicles, publications, audio-visual equipment and any materials, provided that such equipment is purchased and imported prior to any customs clearance; to authorize WWF to use a bank account in local and foreign currency and to undertake foreign exchange transactions in order to carry out its international activities in accordance with the regulations relating to exchange control in Gabon; to authorize WWF to freely withdraw from Gabon the capital resulting from all sales of its real estate and financial interests and/or from the cessation of its operations; not (within the framework of this agreement) to exempt WWF personnel from legal proceedings under Gabonese criminal law for violation of this same law²⁷.

As for the living and working conditions of WWF staff, Gabon undertakes to consider issuing or renewing residence permits to a sufficient limited number of WWF employees, which list must be communicated in advance to immigration services in order of useful checks. Also, Gabon undertakes to issue residence permits for WWF employees, their spouses and children over 16 years old. With regard to the local representative and the non-resident officials who are in Gabon, the Government exempts them from taxes on their income and on their old-age insurance or any other income received from sources outside Gabon; any payment of duties and taxes for personal objects

²⁶*Ibid*, article VIII.

²⁷*Ibid*, article VI.

and effects, during their first installation in Gabon; of any payment of duties and taxes during the temporary admission of a vehicle by agent and by household under registration in a special series. Materials and equipment that have benefited from exemption from import duties and taxes or temporary admission cannot be transferred to Gabon to third parties free of charge or against payment without prior authorization from the customs administration²⁸.

II. Effectiveness of WWF's action in Gabon

The effectiveness of WWF's action in Gabon is perceptible through a strategy articulated around four axes: eco-regions identification; environmental education campaign; sustainable forest management projects development and financing; strengthening environmental legislation.

II.1. Eco-regions identification

To meet the need for conservation of forest areas in Gabon, WWF relies on the landscape approach. It consists of the occupation of forest areas (Olson David and *al.*, 2000) in prospective goal. It is mainly done in fairly large geographical areas distinguished by the uniqueness of their geomorphology, geology, climate, soils, water resources, fauna and flora. This is referred to as the identification of eco-regions.

In its support to Gabonese government to achieve its sustainable development political objectives and through green economy, the WWF did not deviate from this approach. This resulted in the identification of five eco-regions: Mont Alèn-Mont de Cristal; Dja-Odzala-Mikebe²⁹; Lopé-Chaillu-Louesse; Gamba-Mayumba-Conkouti and Léconi-Batéké-Léfini³⁰.

In order to preserve them and to find favourable regions that could shelter national parks, the WWF initiated the environmental education campaign and carried out scientific field studies in collaboration with the wildlife conservation society (WCS)³¹ whose contribution amounted at 315,000,000 CFA francs³².

²⁸*Ibid*, article IX.

²⁹ This eco-region has the particularity of being located in the Cameroon, Congo and Gabon a cross-border zone. This is referred to the cross-border eco-region.

³⁰Mouloungui Armel (2013), « Gouvernance des ressources forestières au Gabon : acteurs et enjeux, *Thèse Doctorat de Géographie Aménagement-Environnement*, Université d'Orléans, p.241.

³¹An American non-governmental organization whose objective is the preservation of nature in the world and particularly in Africa founded in 1895 by Theodore Roosevelt, Madison Grant, George Bird Grinnell, Henry

II.2. Environmental education campaign

Environmental education is an essential tool to progress on the path to sustainable development. Indeed, it encourages exploration, raising questions, examining difficulties and finding solutions to environmental problems. Also, it must train populations capable of serving as human resources in the forest sector. In other words, environmental education thus has as its fundamental objective, on the one hand the awareness and the change of ecological behaviour, with a view to environmental protection and, on the other hand, awareness and the capacity for judgment. It is about fostering the skills that enable understanding the limits of the natural foundations of life and, as part of a community, helping to shape the natural environment and society in a forward-looking, supportive way and responsible.

The "Gabon Education Program initiated by the WWF in 1991, echoed these fundamental objectives of environmental education. This program, with a budget of 40,000,000 CFA francs per year³³, extended from 1991 to 1999. This initiative enabled the WWF (in collaboration with the European Union and the World Bank) to animate a series of training conferences in order to encourage the creation of environmental NGOs in Gabon. Also, it organized information campaigns with emerging Gabonese civil society on the major issues related to the management of forest areas³⁴.

II.3. Sustainable forest management projects development and financing

Determined to honour its commitments in Gabon, the WWF spared no effort. Thus, from 1991 to 2007, it had developed, in collaboration with the Gabonese government, several projects and field studies related to the management of forest areas which it financed. The "Project for monitoring and mitigating the impact of elephants on agriculture in Gabon", the "Project for integrated conservation and development in the Minkébé region" and the scientific field study (in

Fairfield Osborn and Andrew Haswell Green. Until 1990, the WCS was represented by only one member: Lee White, a student who came to prepare his thesis in collaboration with the CIRMF of Franceville. It was thanks to the studies carried out with the CIRMF and then the WWF that the young White graduate became an associate researcher, then WCS representative in Gabon, with residence in Lopé. The WWF could have conducted all the research with its own scientists, but for more efficiency, they called on Lee White, who already had a head start on the knowledge of the Lopé site (See, Mouloungui A., *op. cit.*, p.427).

³²Abessolo Obame Pierre Laurice (2006), « La coopération entre le Gabon et le WWF de 1991 à 2001 », *Mémoire de Maîtrise Histoire des Relations Internationales*, Université Omar Bongo, p.55.

³³*Ibid.*, p.54.

³⁴Mouloungui A., *op. cit.*, p.270.

collaboration with WCS) on regions suitable for hosting national parks in Gabon are some perfect illustrations.

The "Project for monitoring and mitigating the impact of elephants on agriculture in Gabon" covered a period from 1993 to 1996. Its annual budget was 70,000,000 CFA francs³⁵. Indeed, human-wildlife conflicts are undoubtedly one of the main threats to the conservation of biodiversity in Gabon, along with the destruction of habitats and the commercial hunting of wildlife to supply bush-meat markets. Although very old, these conflicts still pose a real and growing challenge to those responsible for biodiversity conservation (Lamarque and *al.*, 2009; Nyhus, 2016; Shaffer and *al.*, 2019). They often lead to a loss of biodiversity and a significant decline in human well-being, particularly of people living near protected areas (Thirgood and *al.*, 2005). Ignoring or resolving these conflicts are therefore key issues for protected area and wildlife managers.

Faced with the recurrence of these conflicts with significant monetary and non-monetary costs and the non-existent mitigation measures, WWF financed the "Project for monitoring and mitigating the impact of elephants on agriculture in Gabon". Its respective objectives were to better understand the extent of damage caused by elephants and other wild mammals to village plantations. This required identifying the biological and social aspects of this problem, ultimately taking measures to protect the crops of Gabonese farmers³⁶.

As for the "Project of conservation integrated into development in the Minkébé region" covering a period from 1997 to 2002, it was financed for an overall annual budget of 200,000,000 CFA francs³⁷. The latter envisaged to reduce the impact of threats resulting from extractive concessions (Forestry, Mining, Agro-industrial), hunting, community development and the networking of basic infrastructure, and others, through the establishment of management systems long-term resources needed to achieve conservation goals. The project also aimed to find methods for increasing the benefits for local communities through income generated through alternative economic initiatives, in order to reduce the pressure on natural resources.

As Minkébé is located in the Gabon-Cameroon-Congo inter-zone, this project was extended to the Governments of these three countries to become the "Cross-border Biodiversity Conservation

³⁵AbessoloObame P. L., *op. cit.*, p.55.

³⁶*Ibid.*

³⁷*Ibid.*

Project in Dja-Odzala-Minkébé Inter-zone involved Cameroon, Congo and Gabon". It is also referred to as "Transactional Dja-Odzala-Minkébé Project (TRIDOM Project)". This seven-year project is implemented by the United Nations Development Program (UNDP), executed by the United Nations Office for Project Services (UNOPS) and funded since 2008 by the Environment Fund (GEF)³⁸, the three governments of Gabon-Cameroon-Congo and lateral and multilateral donors (WWF, WCS, CAFE³⁹, EU⁴⁰, ITTO⁴¹, etc.).

Finally, the scientific studies on field (in collaboration with the WCS) on the regions suitable for hosting national parks in Gabon covering a period from 2000 to 2002 benefited from WWF funding of 315,000,000 CFA francs⁴². Its aim was to design a map incorporating the eco-regions⁴³ previously identified by the WWF as part of its exploration of forest areas at the very beginning of its actions in Gabon. Also, this creation of protected areas aimed not only at scientific objectives making it possible to contribute to the conservation of a biodiversity of global importance contained in these eco-regions, for development, but also at Gabon's sustainable development objectives against the backdrop of the sale of carbon credits.

However, aware that its projects in Gabon will not succeed without national legislation adapted to international standards, WWF has been active in strengthening legal texts related to environmental protection in order to align them with international standards.

II.4. Strengthening environmental legislation

It should be recalled that before the signing of WWF's establishing agreement in Gabon on September 12, legal texts defining forestry management since the colonial period were characterized by

³⁸ An independent body created in October 1991 and bringing together 183 Member States in partnership with international institutions, non-governmental organizations and the private sector, of which the African Development Bank has been the executing agency since 2007. It provides donations and private financing aimed at covering the additional costs of transforming development projects into investments generating global environmental benefits for African countries (see, Global Environment Facility (GEF), [On line] <https://www.afdb.org/fr/topics-and-sectors/initiatives-partnerships/global-environment-facility-gef> (Viewed on 29/01/2023)).

³⁹ Central African Forest Ecosystems (CAFE) is a program for the conservation and rational use of forest ecosystems in Central Africa, launched in 1993. Its objective is to initiate a regional process of coordination of actions and measures intended to promote the conservation and rational use of the forest heritage of Central Africa. It also takes into account the socio-economic and faunal aspects of the environments analyzed.

⁴⁰ The European Union (EU).

⁴¹ The International Tropical Timber Organization (ITTO).

⁴² Abessolo Obame P. L., *op. cit.*, p.55.

⁴³ Mont Alèn-Mont de cristal ; Dja-Odzala-Mikébé ; Lopé-Chaillu-Louesse ; Gamba-Mayumba-Conkouti et Léconi-Batéké-Léfini.

major confusion. If the number and multiplicity of these texts suggests that fauna and flora benefited from absolute protection from 1946 to 1993, this was not the case. For example, the decree of May 20, 1946, fixing the forest regime in French Equatorial Africa (AEF) simply specified that the forest belongs to the State. The latter made it possible to divide the Gabonese forests into two categories: "classified forests"⁴⁴ and the rest not classified. As for the law n°1/82 du 22 July 1982, it brought innovations in terms of distinction between the two categories of forest (identified by the decree of May 20, 1946) and also between forest and fauna. Henceforth, distinction was possible between "classified state forests" and "protected state forests". The former are no longer in State private domain, but in State public domain. Thus, its exploitation is done by company of public interest, whose agents are appointed by the government. It sells logs in public auction. While the latter are in undetermined vocation the field. As such, exploitation is carried out by granting temporary permits (Christy P, Jaffré R et *al.*, 2003, pp.155-156).

Therefore, these legal texts did not, in fact, confer a protected status on the forests. They were content to restrict the number of users by placing the forests in the private domain of the State. Faced with the uncontrolled and illegal exploitation caused by extractive concessions (Forestry, Mining, and agribusiness), hunting, community development, networking of basic infrastructure, etc., the need to conserve Gabonese ecosystems gradually became apparent. Consequently, the WWF exerted pressure on the Gabonese government after the Earth Summit in Rio de Janeiro in 1992.

III. Efficiency of WWF's action in Gabon

The efficiency of WWF's action in Gabon is perceptible at the scientific, legislative, politico-institutional, educational and professional levels.

III.1. Scientific progress

Before the Johannesburg Earth Summit of September 4, 2002, in which Gabon was to take part, the WWF increased pressure on the Gabonese government to preserve the eco-regions identified by

⁴⁴Private State domain managed by the Ministry of Water and Forests including the old forest reserves from before 1946 and those which will be classified after the decree of May 20, 1946.

creating national parks. Thus, using the cartography carried out by WWF experts in collaboration with the WCS, Gabon created on 30, 2002 a network of thirteen national parks throughout the national territory. This creation under a decision of the Gabonese Head of State had⁴⁵ had for objectives the conservation of Gabon's precious ecosystem of global importance, the diversification of Gabonese economy through of ecotourism's development, the set up of transition from extractive economy to green economy. This was a great progress undeniably to the credit of the WWF. Through this initiative, Gabon ultimately increased its prestige and its international credibility to become "a green country".

By superimposing the map of the national parks on that of the eco-regions identified by the WWF, we clearly appreciate at best the results of the scientific studies carried out over the years by this NGO. Thus, in reality, there are no national parks that escape its control.

III.2. Legislative progress

At the legislative level, the WWF's pressure made it possible to endow Gabon with legislation adapted to international standards. Indeed, after the Rio de Janeiro Earth Summit in 1992, Gabon adopted and promulgated several laws in line with international standards. Among them, the most important are Law n°16/93 of August 26, 1993, relating to protection; Law n°16/2001 of December 31, 2001, on the Forest Code in the Gabonese Republic; Law n°003/2007 of August 27, 2007, related to Gabon's national parks.

Law n°16/93 of August 26, 1993 is the first complete text in this area. It is the first time that a legal text takes into account the environment in its complexity that article 2 defines as "the whole of the artificial natural elements as well as social, economic and cultural factors, which interactions influence on surrounding environment, on

⁴⁵Décret n°607/PR/MEFEPEPN du 30 août 2002 portant création d'une aire protégée comprenant le parc national de la Lopé et de ses zones aménagées à des fins d'utilisation multiple ; Décret n°608/PR/MEFEPEPN du 30 août 2002 portant classement du parc national d'Akanda ; Décret n°609/PR/MEFEPEPN du 30 août 2002 portant classement du parc national des plateaux Batéké ; Décret n°610/PR/MEFEPEPN du 30 août 2002 portant classement du parc national des monts Birougou ; Décret n°611/PR/MEFEPEPN du 30 août 2002 portant classement du parc national des monts de Cristal ; Décret n°612/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de l'Ivindo ; Décret n°613/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Loango ; Décret n°614/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Mayumba ; Décret n°615/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Minkébé ; Décret n°616/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Moukalaba-Doudou ; Décret n°617/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Mwagné ; Décret n°618/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Pongara ; Décret n°619/PR/MEFEPEPN du 30 août 2002 portant classement du parc national de Waka.

living organisms, on human activities that impact man well-being". Also, it is for the first time that fauna and flora benefit from protection guaranteed by an important legal instrument. This makes environment a real object of public policy. This law thus determines the relationship between man and the natural environment to ensure a better ecological balance. In all, this law regulates the relationship between man and the natural environment in order to establish a sustainable management of natural resources.

Law n°16/2001 of December 31, 2001 introduces an innovation in the management of forest products. It provides development and sustainable forest and fauna management plans aim in particular at the maintenance, productivity, regeneration and vitality of biological diversity; the ability to permanently ensure forests socio-economic, ecological and scientific functions, without causing damage to ecosystems. In addition, this law determines the conditions for granting logging permits, to which the mining sector does not belong. It also provides timber industry industrialization, with a view to increasing added value and generating direct and indirect jobs; recognizes village communities' customary rights over their forests, in order to ensure their development and well-being. Finally, this law provides a series of coercive and repressive measures, in the event of its violation by water and forest agents.

Furthermore, the creation of national parks in 2002 was not immediately followed by a management plan based on legal texts. Law n°003/2007 of August 27, 2007 related to national parks compensated this anomaly. It is an important legal and institutional framework necessary for the management of national parks. This law aims, within the framework of national natural and cultural heritage conservation development's process, to promote a policy of protection and national parks sustainable development, in particular by: the creation a network of parks representatives of Gabon's biological diversity and covering at least ten percent of the national territory⁴⁶; the establishment of principles, rules and institutional foundations to serve as a legal and organic basis for this policy; the attachment of national parks to the State public domain; the creation of public service responsible for national parks management, environmental information, education,

⁴⁶These parks represent 2,837,128 hectares, about nearly 11.5% of territory total area. Also, they include 129,307 hectares of marine territory (See, Omer Ntougou, « Développement institutionnel de l'agence nationale des parcs nationaux du Gabon », [On line](file:///C:/Users/XXX/Downloads/06_ntougou_anpn.pdf, (Viewed on 29/01/2023)).

communication as well as ecotourism and scientific research; the establishment of a sustainable funding mechanism; the definition of the modalities of State intervention and various partners in parks management; the transfer of police powers from local authorities to park management body and the strengthening of sub-regional and international collaboration and cooperation, in international conventions standards⁴⁷.

National parks come under the public domain of the State. They include, depending on the case and without distinction, a land, sea, lake, lagoon, river or air public domain. National parks are created, classified or declassified, totally or partially, by law, taking into account the customary rights of local communities. Any bill or proposal for the creation, classification or total or partial declassification of a national park is submitted to the national parks management body which, after consulting the local communities and authorities as well as the Scientific Committee provided under Title III of this law, issues a reasoned opinion. For the application of this law, an institutional framework is set up comprising in particular: the High Council of National Parks (HCNP); the National Agency for National Parks (NANP) and the National Parks Scientific Committee (NPSC)⁴⁸.

III.3. Politico-institutional progress

These include the creation of the HCPN, the NANP and the NPSC provided for in Title III of Law n°003/2007 of August 27, 2007, related to national parks.

The HCPN assists the President of Republic and the Government in the determination and implementation of national policy in terms of national parks. Its powers, organization and operation are set by regulation. It is composed of the following members: the Prime Minister or his representative; the Minister in charge of Forest Economy, Water, Fisheries and National Parks or his representative; the Minister in charge of Environment and Nature Protection or his representative; the Minister in charge of territory Planning and Local Authorities or his representative; the Minister in charge of Planning or his representative; the Minister in charge of Scientific Research or his representative; the Minister in charge of Economy and Finance or his representative; the Minister in charge of

⁴⁷Loi n°003/2007 du 27 août 2007, relative aux parcs nationaux du Gabon.

⁴⁸*Ibid.*

Interior or his representative; the Minister in charge of National Defence or his representative; the Minister in charge of Mines, Energy and Petroleum or his representative; the Head of organization in charge of tourism management or his representative; a deputy ; a senator⁴⁹.

As for the NANP, it is a public establishment of a scientific and environmental nature. It has a legal personality, enjoys administrative and financial autonomy and has its own assets. As the national parks management body placed under the technical supervision of Ministry of National Parks and Ministry of Finance and Planning, it is notably responsible for implementing national policy on natural resources protection and ecologic processes. It is also in charge of enhancing natural and cultural national parks legacy, taking into account the balance and stability of ecosystems. As such, it sets up means and procedures for natural habitats and wildlife protection, in particular rare or endangered fauna and flora species, *in situ* and *ex situ*. It approves plan management of each national park and provides technical support for its implementation. It concludes concession agreements by call for tenders, after consulting the park concerned management authority and local communities. It prepares any strategic document relating to parks management and biological diversity conservation. It coordinates scientific and technical institutions activities and nature conservation associations whose programs are linked to national parks. It promotes and regulates ecotourism activities in national parks. It plans and ensures the ongoing training of personnel responsible for national parks management and their natural resources. It process, centralizes and disseminates information relating to national parks in order to implement national monitoring of park conservation indicators. It facilitates local initiatives in favour of biological diversity conservation, education promotion, communication on national parks and any form of participatory park management. It seeks and secures funding for national parks, ensures (in all national parks) land assets management as well as administrative and judicial police exercise⁵⁰.

Finally, the NPSC is a guidance body on issues related to the conservation and maintenance of biological diversity. It is made up of scientific personalities from all nationalities, chosen for their competences, experiences and complementarities in biological diversities conservation and national parks. Its members are appointed

⁴⁹Journal officiel de la République gabonaise, N°10, octobre 2007.

⁵⁰Ibid.

by the Management Committee, which sets the terms of NPSC's internal operation for a renewable term of three years. The NPSC's opinion is required on activities, programs and draft texts that may have an impact on nature. In addition, the NPSC examines the annual reports on the state of conservation of national parks and makes any useful recommendations⁵¹.

III.4. Educational and professional progress

This is mainly about "Gabon Education Program" initiated by the WWF in 1991. Among other significant advances from this program we have the publication of the practical guide to environmental education, several magazines (Mbela, Nono & Toutou, Manga) and brochures for elementary school teachers' use. Also, this program allowed the creation, in collaboration with Shell-Gabon and the National Pedagogical Institute (NPI), of the newspaper *Le Cri du Pangolin* and "the School that I love⁵²" trophy. The introduction to the National School of Water and Forests of the forestry and environmental training program is also an asset of this WWF program⁵³.

Conclusion

The forest is first and foremost a natural environment containing resources. It is also a territory governed by an authority, a built landscape, appropriated and moved by a social organization. The issues around its management are many and most often give rise to the emergence of increasingly diverse actors and development strategies.

Having the largest African forest area recognized as one of Central Africa's reservoirs of abundant and exceptional biodiversity of humanity superior interest, Gabon stood out in a post-independence African context where the majority of States had few means for the implementation of nature conservation actions. Indeed, as a response to its actual economic needs without compromising future generations needs, Gabon gradually formalized environmental regulations. The

⁵¹*Ibid.*

⁵²According to the National Pedagogical Institute, from the first edition (Academic year 1994-1995) to the seventh edition (Academic year 2000-2001), 372,000 students were exposed to this concept (Cf. Mouloungui *A op. cit.*, pp.269-270).

⁵³Lizonzo Glenne-Mignonne D (2009), « La coopération entre le Gabon et l'Union européenne : Cas de l'appui au secteur forêt-environnement (1992-2002) », *Mémoire de Maîtrise Histoire des Relations Internationales*, Université Omar Bongo, p.74.

adoption of several legal texts reaffirming its ecological ideal already evident during the colonial period is an illustration. Although tarnished by a development model based on an extractive economy which was strongly dominated by oil, this ecological ideal was not put on the back burner when the country was forced (at the beginning of the 1990s) to sketch out the diversification of this economy. This is why it sought in 1991 the WWF's expertise, with which it shares the same ecological ideal.

This resulted to the WWF's establishing agreement in Gabon, signed on September 12, 1991. Based on an ideological-legal basic, this cooperation initiated in Gabon the forest governance integrating the principles of sustainable development and green economy. It contains a set of actions and forest management techniques that respect ecological balances and socio-economic needs. It is of crucial importance both for the State and rural populations as well as national and international economic operators). If the way to go still very long, it is undeniable that WWF's support has enabled concrete implementation of sustainable forest management objectives, as the evidence is projects that have transformed this sector of activity. Thus we can observe significant results at scientific, legislative, politico-institutional, educational and professional levels.

In scientific field, the identification of eco-regions allowed the creation of a valuable information bank and fostered depth knowledge of the Gabonese forest domain. In legal field, the redefinition of forest resources management legal framework to international standards is noticeable. In politico-institutional field, the integration of forest policies and strategies inspired by the WWF enabled in 2002 the creation of a network of thirteen national parks and in 2007 the creation of national agency to ensure their protection: the national agency of national parks (NANP). In educational field, the design and dissemination of theoretical and practical programs echo environmental education. Added to this is the training of human resources in environmental conservation.

These are all significant advances, boosted by WWF's influence, which is making progressively Gabonese forest an economic sector that respects sustainable development principles. If sustainable development is not a state of equilibrium, it nevertheless has the merit of being a process in which resources exploitation and the choice of investments are determined according to current and future needs.

References, sources and bibliography

Abessolo Obame Pierre Laurice (2006), « La coopération entre le Gabon et le WWF de 1991 à 2001 », *Mémoire de Maîtrise Histoire des Relations Internationales*, Université Omar Bongo, 128 pages.

Cellule Nationale de Coordination du PAFT-GABON, « Atelier National du Programme d'Action Forestier Tropical du Gabon : Gestion Durable des Ecosystèmes Forestiers du Gabon, Problématiques, Approches consensuelles », Libreville, 17-19 Février 1998.

Chartier Denis et Deléage Jean-Paul (2010), « Mise à jour des écologies politiques pour une politique de l'anthropocène », *Écologie & politique*, vol. 40, n°2, pp. 15-20.

Conférence ministérielle sur la protection des forêts en Europe », Résolution H1, Helsinki, 17 Juin 1993.

Convention n°00628 du 12 septembre 1991, relative à l'établissement de la *World Wildlife Fund* (WWF) en République Gabonaise.

Courtney Roger (2002), *Strategic Management for Voluntary Nonprofit Organizations*, London and New York, Routledge, 324 pages.

Christy P., Jaffré R., Ntougou O. et Wilks C (2003), *La forêt et la filière bois au Gabon*, Multipress-Gabon, Libreville, 389 pages.

Décret n°46-1161 du 20 mai 1946, fixant le régime forestier en Afrique Équatoriale Française (AEF).

Décret n°1051/ PR du 30 septembre 1972, créant un ministère de l'environnement, du reboisement chargé des relations avec l'office national des bois et services civiques.

Décret n°607/PR/MEFEPEPN du 30 août 2002, portant création d'une aire protégée comprenant le parc national de la Lopé et de ses zones aménagées à des fins d'utilisation multiple.

Décret n°608/PR/MEFEPEPN du 30 août 2002, portant classement du parc national d'Akanda.

Décret n°609/PR/MEFEPEPN du 30 août 2002, portant classement du parc national des plateaux Batéké.

Décret n°610/PR/MEFEPEPN du 30 août 2002, portant classement du parc national des monts Birougou.

Décret n°611/PR/MEFEPEPN du 30 août 2002, portant classement du parc national des monts de Cristal.

Décret n°612/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de l'Ivindo.

Décret n°613/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Loango.

Décret n°614/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Mayumba.

Décret n°615/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Minkébé.

Décret n°616/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Moukalaba-Doudou.

Décret n°617/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Mwangé.

Décret n°618/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Pongara.

Décret n°619/PR/MEFEPEPN du 30 août 2002, portant classement du parc national de Waka.

Dennis, Meadows Donella, Randers Jorgen (1972), *Les limites à la croissance*, Traduction: Agnès El Kaïm, Montréal, écosociété, 205 pages.

Food and Agriculture Organization of the United Nations, [Enligne]

<https://atlasocio.com/classements/geographie/forets/classement-etats-par-surface-forestiere-pourcentage-afrique.php> (Consulté le 08/05/2022).

Forsyth Tim (2003), *Critical Political Ecology: The Politics of Environmental Science*, Londres, Routledge, 323 pages.

Global Environment Facility (GEF), [On line]

<https://www.afdb.org/fr/topics-and-sectors/initiatives-partnerships/global-environment-facility-gef> (Viewed on 29/01/2023).

Journal officiel de la République gabonaise, N°10, octobre 2007.

Lomba Mousoutou Nathalie (2002), « Le Gabon et les politiques internationales en matière de protection de l'environnement de 1972 à 2002 », *Mémoire de Maîtrise Histoire des Relations Internationales*, Université Omar Bongo, 130 pages.

Lamarque F., Anderson J., Fergusson R., Lagrange M., Osei-Owusu Y. and Bakker L. (2009), "Human-wildlife conflict in Africa: Causes, consequences and management strategies", Rome, *FAO Forest Paper*, n°157, 98 pages.

Lizonzo Glenne-Mignonne D (2009), « La coopération entre le Gabon et l'Union européenne: Cas de l'appui au secteur forêt-environnement (1992-2002) », *Mémoire de Maîtrise Histoire des Relations Internationales*, Université Omar Bongo, 141 pages.

Loi n°28/60 du 8 juin 1960, réglementant le l'exercice de la chasse.

Loi n°1/82 du 22 juillet 1982, dite loi d'orientation en matière des eaux et forêts.

Loi n°25/87 du 29 juillet 1987, autorisant la ratification de la Convention africaine pour la conservation de la nature et des ressources naturelles du 15 septembre 1968 à Alger.

Loi n°16/93 du 26 août 1993, relative à la protection et à l'amélioration de l'environnement.

Loi n°16/2001 du 31 décembre 2001, portant code forestier en République gabonaise.

Loi n°003/2007 du 27 août 2007, relative aux parcs nationaux du Gabon.

Meadows Dennis, Meadows Donella, Randers Jorgen (1972), *Les limites à la croissance*, Traduction française d'Agnès El Kaïm, Montréal, éco-société, 205 pages; Nations Unies, Commission mondiale sur l'environnement et le développement, *Rapport Brundtland* « Notre avenir à tous », 1987, 349 pages.

Mouloungui Armel (2013), « Gouvernance des ressources forestières au Gabon : acteurs et enjeux, *Thèse Doctorat de Géographie Aménagement-Environnement*, Université d'Orléans, 497pages.

Mombo J. B. (1997), « L'état de l'environnement au Gabon », *Revue de l'IRSH*, Vol.2-3, pp.19-22.

Nations Unies, Commission mondiale sur l'environnement et le développement (1987), « Rapport Brundtland : *Notre avenir à tous* », 349 pages.

Nyhus Philip J. (2016), "Human–Wildlife conflict and coexistence", *Annual Review of Environment and Resources*, Tome 41, p.143–171.

Ndzeng Nyangone Emmanuel (2022), « La diplomatie économique : cheval de bataille de mise en œuvre du PSGE depuis 2012 », *Revue Della/Afrique*, Tome 3, Vol.4, N°9, pp.77-92.

Olson David M.,Dinerstein Eric et al. (2000), "The Global 200: A representation approach to conserving the earth's distinctive ecoregions", Washington DC, Conservation Science Program, *World Wildlife Fund-US rapport*.

Omer Ntougou, « Développement institutionnel de l'agence nationale des parcs nationaux du Gabon », [On line] (file:///C:/Users/XXX/Downloads/06_ntougou_anpn.pdf, (Viewed on 29/01/2023).

Reed P. et Rothenberg D. (1993), *La sagesse en plein air : les racines norvégiennes de l'écologie profonde*, Minnesota, University of Minnesota press, 268 pages.

Serge De Schryver, « Comment et pourquoi les forêts assurent la stabilité du climat », [En ligne] https://kzhome.info/crone/xnl_r5V2ioyohKs/comment-et-pourquoi-les-for-ts-assurent-la-stabilit-du-climat (Consulté le 08/05/2022).

Shaffer L. Jen, Khadka Kapil K., Van Den Hoek Jamon & Naithani Kusum J. (2019), "Human-elephant conflict: A review of current management strategies and future directions", *Frontiers in Ecology and Evolution*, 6, p. 235.

Tor A. Benjaminsen et Svarstad Hanne (2009), « Qu'est-ce que la political ecology ? ». *Natures Sciences Sociétés*, 17, 3-11.

Wapner Paul Kevin (1996), *Environmental Activism and World Civic Politics*, New York, State University of New York Press, 238 pages.

World Wildlife Fund, « Rapport annuel 2013 », [En ligne] http://d2ouvy59p0dg6k.cloudfront.net/downloads/ar2013_v15_lr_1.pdf (Viewed on 08/05/2022).