

Hydrocarbon Governance and Environmental Protection in the Democratic Republic of Congo

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Abstract

The Congolese hydrocarbons sector is one of the key areas of the national economy and constitutes one of the main resources for financing the state budget. However, the uncontrolled exploitation of hydrocarbons can have consequences on the environment as a whole, which is a natural resource essential to human life and to terrestrial and marine biodiversity. To this end, the first principle of the Stockholm Declaration adopted by the 1972 United

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Nations Conference on the Human Environment states that “Man has a fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being. He has a solemn duty to protect and improve the environment for present and future generations”. From the above, the protection of the environment is part of the international commitments of States to promote, in particular, sustainable development. In the Democratic Republic of Congo (DRC), on the other hand, the lack of an adequate policy on hydrocarbon exploitation and environmental protection has enormous repercussions and unfortunate consequences on the entire Congolese population despite the absolute poverty that the latter is already experiencing. This paper awaits the implementation of adequate proposals to enable policy makers to know where to start in order to ensure sound hydrocarbon governance and sustainable environmental protection in the DRC. It is also a question of demonstrating that sound governance of hydrocarbons and environmental protection requires, in particular, the participation and efforts of everyone: first of all a political will, then a strong involvement of the public authorities, of the companies which invest in the hydrocarbons sector, and a change in the mentalities of the citizens for the integral and sustainable development of the DRC in line with its hydrocarbon potential.

Introduction

The Democratic Republic of Congo (DRC) has significant hydrocarbon deposits in three main basins: the coastal basin covering more or less 6,000 km², the central basin with more or less 1,000,000 km², and the basin of the western branch of the East African Rift Valley with more or less 50,000 km², the latter including the Albertine Graben, Lake Kivu, the Tanganyika Graben, the Moero Graben and Upemba.¹ Of these three basins, only the coastal basin, with three blocks open to exploitation, is currently in production with a daily average of 23 thousand barrels of crude oil onshore and offshore.² In spite of all these assets, the Congolese population is still languishing in poverty and an increasingly threatened environment, while all expectations of the latter should henceforth be turned in particular towards the hydrocarbons sector which, if the State holds out, is likely to contribute enormously to the purchasing power of the population and to the development of the DRC.

A country of paradoxes, the DRC has a great deal of natural resources, particularly hydrocarbon resources, but its population is languishing in absolute poverty. The exploitation of hydrocarbons in the DRC is supposed to be a source of public interest³ for the Congolese people, on the contrary, it constitutes social and environmental problems whose direct con-

1 Explanatory memorandum to Law No. 15/012 of 1 August 2015 on the general regime for hydrocarbons in the Democratic Republic of Congo.

2 *MukenaNgoy A.*, La République Démocratique du Congo se dote d'une législation sur les hydrocarbures, ACP, Kinshasa, 2015. Available at www.radiookapi.net.

3 *Lelo Di Makungu U., et al.*, Notion d'intérêt public et avenir de la conservation de la nature en République Démocratique du Congo, *Recht in Africa / Law in Africa / Droit en Afrique* 22 (2019), p. 97–119.

sequences include social injustice and poverty caused by environmental pollution and respiratory diseases. The inequalities created by the exploitation of hydrocarbons are sometimes at the root of the frustrations which are transformed into violent conflicts by the multiplication of armed groups to counter social and environmental injustice. The unsustainable exploitation of hydrocarbons coupled with unethical behaviour is a factor of instability in the state, a source of corruption, money laundering and a culture of state predation.

Indeed, although some efforts have been made to regulate the hydrocarbons sector, hydrocarbon governance has nevertheless been subject to galloping and often controversial regulations in the DRC. Faced with these shortcomings, the Congolese state will become aware of the urgent need to remedy the situation. It is in order to remedy the weaknesses of governance in the hydrocarbons sector that the Congolese State has adopted a new hydrocarbons code, namely Law No. 15/012 of 1 August 2015 on the general regime for hydrocarbons in the DRC.

Thus, it has theoretically established a new institutional architecture for the normative governance and management of the hydrocarbon sector. However, one of the innovations of this law lies in the fact that all upstream and downstream oil activities are taken into account in a single text that henceforth belongs to the State.

In this context of the state's decay, where a gestation of hydrocarbon governance can be observed, this study will analyse the strengths and weaknesses of the new hydrocarbon code with a view to effectively ensuring environmental protection through sustainable hydrocarbon exploitation in the DRC. To this end, the exegetical method was mobilized to analyze the legal framework serving as a lever for hydrocarbon governance coupled with a systemic and critical approach. This systemic approach to hydrocarbon management made it possible to verify the coherence, the quality of organization, the different elements of hydrocarbon governance in the DRC as an interacting sub-system, that of a whole undergoing changes over time but which retains its identity and a certain permanence.⁴ The critical approach has allowed the political and social phenomena to be taken into account in order to understand the rule of law, i.e. the governance of hydrocarbons in the DRC.⁵

To this end, in addition to the introduction and conclusion, this study is structured around four essential points. The first point analyses the dynamism of the legal framework for hydrocarbons in the Democratic Republic of Congo (A), the second point examines the new Hydrocarbon Code and environmental protection in the DRC (B), while the third point focuses on analysing the sustainability and accountability of hydrocarbon exploitation in the Democratic Republic of Congo (C), and the fourth point examines the legal engineering of the normative governance of hydrocarbons and environmental protection (D).

4 *Bergel J.-L.*, *Méthodologie juridique*, PUF, Paris, 2001, p. 26.

5 *Corten O.*, *Méthodologie du droit international public*, Editions de l'Université de Bruxelles, Brussels, 2009, p. 59.

A. Dynamism of the legal framework for hydrocarbons in the Democratic Republic of Congo

The law on hydrocarbons has been extensively reformed in the DRC since the first hours after independence. Since the dawn of time, the hydrocarbon and mining sectors were governed by the same legislative text, namely the Ordinance-Law of 11 May 1967 which was repealed by the Ordinance of 2 April 1981. In 2002, the Congolese legislator, through the Act of 15 July 2002 on the Mining Code, created a separation between these two sectors, leaving the hydrocarbons sector under the authority of the afore-mentioned Act. This former repealed law had not at all made a substantial contribution to the requirements of sustainable development. It was the basis for an unsustainable management of hydrocarbons and environmental protection. Faced with the outdated and inappropriate nature of the old law, the Congolese legislator became aware of this legal deficiency by promulgating the new Hydrocarbons Code, Law No. 15/012 of 1 August 2015 on the general regime of hydrocarbons in the DRC. Therefore, as the Congolese legislator emphasised in the explanatory memorandum of the 2015 Congolese Hydrocarbons Code, the DRC is called upon to respond to two major challenges of an energy nature: The development of its hydrocarbon resources and the satisfaction of the growing need for energy for the well-being of the population and the development of economic activities.⁶

However, the exploitation of hydrocarbons is a source of pollution and unsustainable management of the environment. Ecological sustainability focuses, *inter alia*, on pollution control, resource prevention, energy conservation and the transmission of natural capital to future generations. Therefore, natural resources are managed in such a way that degradation is minimized, their quality is improved and their potential for careful use is increased. The environment is not an abstraction, but the space in which human beings live and on which the quality of their lives and their health depends, including for future generations.⁷ The Constitution of 18 February 2006 places a healthy, favourable environment among the rights of citizens and requires everyone to defend it. Title VI of General Act No. 15/012 of 1 August 2015 on the General Regime for Hydrocarbons provides for the protection of the environment.

Indeed, the exploitation, production and exploration of hydrocarbons generate pollution effects that cause ecological and human damage. On the other hand, the exploitation of hydrocarbons with a low environmental impact requires an effective level of governance accompanied by a high degree of transparency and accountability to citizens. In the specific context of a State in bankruptcy and gestation of governance, undermined by corruption and impunity, this research finds it necessary and timely to also examine the possible con-

⁶ Law n°15/012 of 1 August 2015 on the general regime of hydrocarbons in the Democratic Republic of Congo, in *Journal Officiel de la RDC*, 2015.

⁷ *Loemba Davide B.*, *Pour une gouvernance verte au Congo*, 2008 (available at www.congopage.com).

tribution of the new Hydrocarbon Code so that the DRC can take all the necessary measures to demonstrate sound hydrocarbon governance and effective protection of the environment.

Nevertheless, the dynamism of the legal framework for hydrocarbons in the DRC is at the root of a controversial opinion and shares the thoughts of many researchers. This work attempts to bring together, on the one hand, the opinions of those who believe that the increasing evolution of the Congolese legal framework for hydrocarbons would be the maladjustment of the old legal frameworks to the economic and strategic character of the hydrocarbon resources and that they need to be adapted and, on the other hand, the thoughts of those who believe that the covetousness and geopolitical stakes of hydrocarbons would be at the root of the multiple changes in the legal framework for hydrocarbons and that they need to be controlled.

1. Inadaptation of the old legal frameworks and the need for a new framework for Congolese Hydrocarbons

Prior to the establishment of a new legal framework, the hydrocarbons sector in the DRC had flourished under regulation. Old texts proved to be inadequate, which is why the Congolese State considered it necessary to put in place new hydrocarbon legislation. The new hydrocarbon regulation is part of the standardization of the sector throughout the country. Reference is made mainly to Law No. 15/012 of 1 August 2015 on the general regime of hydrocarbons and Decree No. 16/010 of 19 April on the regulation of hydrocarbons.⁸ This new legislation comes at the right time to complete the legislative texts that have governed the sector since the nights of time. Among these legal provisions which have proved to be unsuited to the current revolution in the hydrocarbon sector in the DRC, are the 1885 Leopoldian decree on land occupation; the 1937 colonial law on general legislation on mining; the 1959 royal decree on the regulation of hydrocarbon exploration and exploitation.⁹ In addition to these first provisions, there is the law of 1967 on general legislation on mines and hydrocarbons as well as the law of 1981 on general legislation on mines and hydrocarbons.

For *David Teurtie*,¹⁰ the untimely reform of the hydrocarbon sectors has more than one cause. For the latter, the beginning of the 21st century has seen the global economic and strategic situation change to the benefit of hydrocarbon exporting countries. There are many reasons for this, in a context of significant growth in demand and the scarcity of new re-

8 *MukenaNgoy A.*, La République Démocratique du Congo se dote d'une législation sur les hydrocarbures, ACP, Kinshasa, 2015, p. 2. Available at www.radiokapi.net.

9 Ordinance-Law No. 81-013 of 2 April 1981 on general legislation on mining and hydrocarbons, published in the Official Journal No. 8 of 15/4/1981, p. 24 and amended and supplemented by Ordinance-Law No. 82-039 of 5 November 1982, J.O. No. 22 of 15 November 1982, p. 10 and by Law No. 86-008 of 27 December 1987, p. 8.

10 *Teurtie D.*, La stratégie de la Russie dans l'exploitation de ses hydrocarbures: contrôle et diversification, CAIRN, 2008, p. 17.

serves, hydrocarbon prices should remain high. For the first time, he continued, exporting countries are in a strong position vis-à-vis importing countries insofar as the oil market, which has been in surplus for decades, is gradually becoming structurally in deficit and exporting countries are assured of very significant medium-term revenues from this rise, hence the need to adapt the legal framework to the dynamism of hydrocarbon resources.¹¹

Although still controversial, the new reform of the legal framework for hydrocarbons in the DRC fills a gap that has long delayed the effective development of hydrocarbon resources by asserting state ownership of subsoil hydrocarbons. Notwithstanding the vision of some observers who believe that this assertion of state ownership could discourage certain investments.¹²

2. Congolese hydrocarbons, a geopolitical issue and source of covetousness

The DRC is endowed with numerous natural resources, particularly hydrocarbon resources. These resources are the country's misfortune because they attract the covetousness of both armed groups and foreign investors.¹³ The DRC lives in a situation of paradox to excess because, not only that the Congolese hydrocarbons represent a geopolitical, social and economic stake of size for its integral development but also this free wealth brings almost or nothing to the population as a benefit despite a terribly despoiled environment.

The geopolitics of hydrocarbons encompasses a large number of issues for the economy and global security. It must be borne in mind that hydrocarbons remain a major source of tension in the world. *Hugo Toupin* explains the geopolitical stakes of hydrocarbon resources by the fact that these fossil energies (hydrocarbons) are unequally distributed in the world and therefore generate many tensions and covetousness.¹⁴ There are major security issues surrounding hydrocarbons. Because, it is a major target in order to reach economically and symbolically the interests of the powers. Thus, the DRC should put in place a legal framework to control and exercise its sovereignty over all its hydrocarbon resources. That is why, in order to prevent and ensure national security in the turn of hydrocarbons, the granting of rights to prospect, explore and exploit hydrocarbons are now fine-tuned in the new legal framework on hydrocarbons.

11 *Idem*.

12 *Radio Okapi*, Controversy of opinions around the new legislation on hydrocarbons in the Democratic Republic of Congo, Kinshasa, 2015, available at www.radiookapi.net.

13 *Maxime A., et al.*, L'instabilité en République Démocratique du Congo : entre conflit ouvert, corruption et interférence économique, Grenoble, 2015, available at www.irenees.net/bdf_fiche-analyse-1036_fr.html.

14 *Toupin H.*, Diplomatic Perspectives: Foreign Policy in the 20th Century, available at www.les-yeux-du-monde.fr.

3. Impact of hydrocarbons on the environment and advocacy for a new Governance on hydrocarbon resources

Most of the energy sources needed to run our societies are supplied by gas and oil. But their extraction also generates a series of present and future social and environmental costs, both direct and indirect, which must be compared with the benefits they bring.¹⁵ The exploitation of hydrocarbons can have serious repercussions on the environment. Oil spills, for example, can have a wide range of impacts on the marine environment.¹⁶ Often referred to in the media as “ecological disasters”, oil spills are presented as having terrible consequences for the survival of marine life. The list of consequences of the misdeeds of oil exploitation is not exhaustive, for example:

- Pollution of water, air and soil
- Depletion of fish resources
- Respiratory diseases
- Loss of habitat or shelter resulting in the elimination of ecologically important species
- Smells of burning oil and gas flares
- Oil spills
- Abandonment of drilling wells

However, two environments are primarily affected by hydrocarbon development. The first is the marine environment and the second is the forest environment. The exploitation of hydrocarbons can cause considerable and irreversible ecological damage, accompanied by an inevitable loss of marine resources, and can seriously impact the ecosystems and populations living near the contaminated coastline who receive almost no benefit from such exploitation.¹⁷ The oil and gas extractive industries have rarely made a positive contribution to sustainable development and environmental protection. These industries are seen by many civil society and civil organizations as having contributed to corruption, pollution and social unrest – including wars – in several countries, particularly in Africa.¹⁸ Thus, the DRC was faced with the need to respond to two major energy challenges, namely the development of its hydrocarbon resources and meeting the growing need for energy for the well-being of the population and the development of economic activities.

To achieve this, the Congolese legislator once again reformed the hydrocarbons sector while at the same time putting in place a new Hydrocarbons Code, the content of which shows that, unlike the 1981 legislation which formally favoured the concession as the main

15 *Kloff S. and Wicks C.*, Environmental Management of Offshore Oil Development and Shipping, CEESP, 2004.

16 ITOPI, Effects of Oil Pollution on the Environment, 2017, available at www.itopi.com/uploads/translated/TIP_13_FR_Effects_of_Oil_Pollution_on_the_Environment.pdf.

17 *MbombMosau G.*, Nouvelle législation congolaise sur les hydrocarbures (première partie), Kinshasa, 2017, available at <https://juriafricome.com>.

18 *Kloff S., and Wicks C.*, *op. cit.*, p. 7.

method of granting mining rights, the current one, on the other hand, favours, in particular, the production-sharing contract and environmental protection.

B. New Hydrocarbon Code and environmental protection in the Democratic Republic of Congo

Natural resources are one of the major components of wealth and socio-economic development in the DRC. They are also the driving force of the Congolese economy hence the Congolese government's entire intention is directed towards this sector. No longer than February 11, 2018, the President of the Democratic Republic of Congo presided over the inaugural ceremony of the offshore drilling rig “Nuada: is a unique drilling rig, capable of working in waters with a drilling capacity of up to 10 km below the ground” in the town of Muanda, in the new Province of Central Kongo.¹⁹ On this occasion, the Congolese Minister of Hydrocarbons recalled the enormous oil potential that the DRC has in 24 of the 26 provinces, stressing that the two provinces not yet concerned are being researched. Nevertheless, rich in oil, essentially offshore, the DRC is still exposed to threats to the environment and people.

Offshore exploitation usually begins with seismic surveys. However, the ecological impacts of seismic surveys are generally poorly understood and little information is available because it has been shown that seismic surveys can have a negative impact on fish and these impacts can be deeper and longer term if the surveys are conducted during fish migration or reproduction.²⁰

1. Environment impacts of seismic surveys and other extraction procedures

Seismic exploration for hydrocarbons presents many uncertainties and risks for marine organisms. The sound waves emitted propagate through the water over more than 100 kilometres and cause noise pollution, which is harmful to aquatic fauna.

The sound impact varies according to the distance of the individual from the source, but also according to its depth. It is several decibels lower near the surface compared to a similar impact at depths. In addition, in deep water, marine species are likely to perceive both waves directly emitted by the source and waves reflected from the seabed. Therefore, the impacts of seismic exploration can be extremely variable from one location to another, from one individual to another. Within a radius of about ten metres around the exploration area, damage can include haemorrhage, paralysis and loss of vision. Noise seems to have a sig-

19 *Agence Congolaise de Presse* (ACP), The President of the Republic Joseph Kabila inaugurates the “Nuada” drilling rig of PERENCO, Central Kongo Province, DRC, 2018, p. 7.

20 *PayimaLey C.*, Les multinationales pétrolières et protection de l'environnement en Afrique centrale, 2008, p. 38.

nificant impact on species in their early life stages (eggs, larvae, juveniles).²¹ Furthermore, some studies show that near seismic zones whales and dolphins no longer feed. They also change their diving habits since marine mammals that feed and navigate by sound have a very disturbed behaviour. This is the case for cetaceans that avoid areas where there is seismic activity.²² In addition, there is a cascade effect, since impacts at the level of a group of organisms are often reflected throughout the food chain. Therefore, it is important to always keep in mind that the marine pollution problem is an ecosystem problem.

However, although each environment requires a thorough study, seismic exploration generally presents many uncertainties and risks. It is obvious that a marine animal can suffer permanent physical damage when it is close to a network of airguns. Further away from the source, sound pressure decreases in intensity and other types of injuries may occur, including deafness and behavioural changes.²³ In addition, the extraction methods used in the oil industry cause damage that has a considerable impact on nature. Wherever the industry tries to implement hydraulic fracturing for gas or oil extraction, intense controversy arises over its environmental and health impact, among other things.

a. Water and soil pollution

One of the main environmental problems of hydraulic fracturing is the pollution of water and soil that it causes. Injecting water at high pressure into rock fractures adds chemical additives (proppants), which make it easier for the injected water to penetrate the rock fractures. These fluids can be composed of a dozen different products: acetic acid, hydrochloric acid, borate salt, hydropropanol, ethylene glycol.²⁴ In addition, oil sands extraction requires a lot of water and the use of solvents that are discharged into pits. This waste goes down to the water table. Animals and humans use the water for drinking and eating (fish). The action of cleaning empty oil barrels to prevent explosions is the first water pollution. In addition, when production is started, the operator builds one or more pits or pools in nature where mounds of products toxic to humans and nature will be discharged. The waste left behind after production is dumped into the soil and pollutes it before it reaches the water table.²⁵

21 *Kelle L., Semelin J.*, Offshore oil prospecting, French legislation is 50 years late! *Le Courrier de la Nature* n°221 July-August 2005, p. 18–24.

22 *Dufour, R. and P. Ouellet*, Rapport d'aperçu et d'évaluation de l'écosystème marin de l'estuaire et du golfe du Saint-Laurent. Fisheries and Oceans Canada, Canadian Technical Report of Fisheries and Aquatic Sciences 2744E, Mont-Joli, 2007, vii + 123 p.

23 *Bodennec G., Glemarec H., Grizel H., Kaas R., Legrand V., Lemoal E., Michel P., Miossecl, Samain J.F.*, Impacts of hydrocarbons on marine fauna and flora. Synthèse des informations relatives à l'impact des hydrocarbures Institut Scientifique et Technique des pêches maritimes. Pierre Michel, CEE/ISTPM. (CEDRE, Brest), 1983.

24 *Dandonneau Y.*, Biological effects of oil pollution of the seas. ORSTOM, 1978. (www.ird.fr).

25 *UNEP*, Environmental Management of Oil and Gas Exploration and Production. An overview of problems and management approaches. Technical Report, 1997. (www.ogp.org.uk).

b. Deforestation and peat removal

The oil industries are clearing large tracts of forest to make room for buildings, pipelines and boreholes. Then peat is removed when necessary, releasing large amounts of CO² into the atmosphere. Knowing that one out of ten sinks is exploitable on average, this means that nine times out of ten, 10 hectares of forest are wasted at the very least.²⁶

c. Air pollution

Several stages of oil development release toxic and/or greenhouse gas-causing materials into the air. Refining, for example, releases sulphur and nitrogen oxides, volatile organic compounds, carbon monoxide, benzene and other greenhouse gases. Transport also plays an important role in this pollution because tanker trucks emit large amounts of CO² per tonne transported and per kilometre travelled.

2. Specificities of the new Hydrocarbon Code

The DRC has new legislation on hydrocarbons. This law takes into account, on the one hand, all oil activities and, on the other hand, specifies the State ownership of hydrocarbon resources from the subsoil to the point of export and which constitutes a framework for standardization and regulation of the oil sector in the DRC. As a reminder, the new legislation complements the legislative texts that have long governed the sector for decades, it offers the DRC many advantages and a series of innovations.²⁷ Among the innovations, we can cite in particular, the taking into account of all activities upstream and downstream oil in a single text, hydrocarbon resources from the subsoil to the point of exploration now owned by the State. The State is supposed to invest in geological, geophysical and geochemical research work in order to evaluate its hydrocarbon resources. This approach places the Congolese State in a leading position in the hydrocarbons sector in the DRC and allows, in particular, to improve the failing service of COHYDRO, the only national oil company so far. That is to say, under the new Hydrocarbon Code, the State is the sole owner of the hydrocarbons contained in the Congolese soil and subsoil.

In regard to the allocation of hydrocarbon rights, which differs from the procedure for organising public contracts, the new law establishes a specific procedure for calls for tenders by the Council of Ministers, because of the strategic nature of hydrocarbon resources. Furthermore, the new law, which is now in force, recognizes only two types of contracts, namely the production sharing contract and the service contract. The right of exploration and exploitation is granted only by contract and to the exclusion of the permit as was the

26 *Fournier C.*, *La Fracturation Hydraulique et ses Consequences Environnementales et Sanitaires*, E-RSE, 2016. (www.e-rse.net).

27 *MukenaNgoy A.*, *La République Démocratique du Congo se dote d'une législation sur les hydrocarbures*, ACP, Kinshasa, 2015, p. 5. Available at www.radiookapi.net.

case in the past. For the future, the new law provides for the creation of a fund for the benefit of future generations. However, there is reason to question not only the future of such a fund for future generations while the present generations languish in poverty, but also its effectiveness in relation to the characteristic of the governance deficit in the DRC.

Another thing, this new law also provides for the establishment of a national hydrocarbons company (SONAHYDROC) whose aim is to secure the investor and the State, which will be represented by its own company in all agreements that hydrocarbons sign with investors. In a context marked by the requirement of competitiveness but also by a form of “resource nationalism”, the new legal framework has highlighted the political stakes of hydrocarbon governance and environmental protection on the one hand, and the legal instruments and institutional frameworks on the other hand, with a view to identifying the issue of hydrocarbon governance and environmental protection in the DRC.²⁸ In short, the new law on hydrocarbons presents issues based on prospecting, exploration and exploitation activities in the sedimentary basins in the DRC, which are subdivided into blocks by an order of the minister having the hydrocarbons sector in his or her attributions, and complements the legislative and regulatory texts that have long governed the sector for decades. The future of hydrocarbon exploitation in the face of the extent of poverty in the DRC should be questioned at this time.

3. Hydrocarbon exploitation and poverty in the Democratic Republic of Congo

Despite its enormous oil potential, which it abounds throughout the national territory, currently in the DRC, the exploitation of hydrocarbons remains today confined to the Province of Central Kongo, a new Province located in the west of the DRC. However, prospecting operations are underway in various regions of the republic, for example around Lake Albert, on the border with Uganda. On the other hand, the entire history of the DRC has been marked by the bloody exploitation of its natural resources. From rubber to “conflict minerals” by international economic and political forces, so that in 2016, for example, the DRC is ranked 176th in the United Nations Human Development Index.²⁹

Indeed, the exploitation of hydrocarbons does not seem to have played a positive role in terms of development. On the contrary, these extraction activities have a considerable environmental and social cost for the local populations.³⁰ In Muanda, for example, the exploitation of black gold by the Franco-British firm Perenco does not seem to bring any real benefit. On the one hand, Perenco's activities lead to pollution, environmental degradation and social upheavals that affect the fundamental rights of these populations; on the other hand,

28 *MbombMosau G.*, Nouvelle législation congolaise sur les hydrocarbures (première partie), Kinshasa, 2017, p. 12, available at <https://juriafrique.com>.

29 *United Nations Development Programme*, Human Development Report, UNDP, New York, NY 10017, 2016, p. 38.

30 *Catholic Committee against Hunger and Development – Land in Solidarity (CCFD)*, Oil in Muanda: Justice on the cheap, 2013, available at: www.dev.outre.net.com/infons.

the supposed “manna” of oil does nothing to lift the inhabitants of Muanda out of poverty; on the contrary, this part of the country is described as “the poorest oil city in the world”.³¹ Thus, oil exploitation is clearly not synonymous with wealth, but with human rights violations, because the cumulative impacts of pollution (crude oil spills and leaks, burning of associated gases, poor waste treatment) infringe on the rights of the population, particularly in terms of the right to health, food and means of subsistence.³²

C. Sustainability and accountability of hydrocarbon development in the Democratic Republic of Congo

The sustainability and accountability of hydrocarbon development is achieved through the policy of corporate environmental governance, which is the environmental pillar of a broader concept, and corporate social responsibility, which is the application of the principles of sustainable development to business. Corporate environmental governance takes into consideration a company's management of its impacts and risks and is used to evaluate its environmental actions and opportunities.³³ The multiplication, over the last few decades, particularly of industrial crises and the growing awareness of the environmental impacts of our economic development model, which have been accumulating since the industrial revolution, have contributed to a slow change in mentalities.³⁴

With the aim of ensuring sustainability and guaranteeing the accountability of the hydrocarbon operator in order to ensure sustainable development in the DRC, despite the fact that this is envisaged in the context of a bankrupt State, the new Hydrocarbons Code has nevertheless provided for the social responsibility of oil companies with regard to sustainable development issues in favour of the populations directly affected by oil works, through contributions and a provision for social innervations both in the exploration and exploitation phases.

1. Hydrocarbon governance, environmental protection and sustainable development

The relationships between population growth, natural resource use and environmental degradation are complex. In the DRC, economic growth is linked to the exploitation of natural resources, often as exports to highly developed countries. Environmental protection must be an integral part of the development process. The exploitation of hydrocarbons must evolve in order to minimise their adverse social and environmental impacts. To this end,

31 *CCFD-Terre Solidaire*, Quand le pétrole rend les pauvres encore plus pauvres, Observatoire des multinationales, 2014, available at www.multinationales.org/Perenco-en-RDC_quand-le-petrole.

32 *Ouédraogo P.*, La gouvernance du développement durable, Cours de formation en ligne, Mooc, IFDD, 2018, p. 9.

33 *Duclaux Cécile M.*, Le concept de développement durable, Cours de formation en ligne, Mooc, IFDD, 2018, p. 6.

34 *Déville H.*, Environmental Economics and Policy, l'Harmattan, 2010, p. 28–30.

responsible production and consumption is required between present and future generations. Thus, the choices of the present must take into account the needs of future generations, i.e., take into account their right to live in a healthy environment.

The concept of sustainable development has appeared in international policy terminology since the “Bruntlandt” Commission in 1987. According to the report of this commission, “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The essential novelty of this concept lies in the consideration of three interdependent poles within human activities: economic, social and environmental. On this basis, sustainable development can therefore be defined as a strategy for safeguarding the planet by means of a consensus allowing the increase of general well-being by arbitrating between the imperative of preserving nature, the need to take into account economic constraints and the importance of strengthening social ties and cultural diversity.³⁵ But it is also “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.³⁶

Sustainable development aims at limiting the impact of human activities on the natural environment, but also on the urban environment. The aim is to preserve natural resources in the long term by reducing their overexploitation, nuisances, disfigurement of landscapes and the use of fossil fuels in favour of renewable energies. It is also and above all a development that must ensure social cohesion, which consists of a fair redistribution of income, the production of quality services and decent jobs as well as food, drinking water and clean air. To this end, sustainable development concerns all actors, which includes all natural and legal persons (government, local authorities, associations, businesses, citizens) contributing to the definition of the values and objectives of sustainable development and their implementation. Principle 10 of the Rio Declaration on Environment and Development states that “environmental issues are best addressed through the participation of all concerned citizens”. The preamble of Agenda 21 of Rio stresses that “sustainable development must be implemented by all actors, public, private and civil society, at the local, national, sub-regional and global levels” for the achievement of economic growth and development.³⁷

2. Hydrocarbon governance, environmental protection, economic growth and integral development of the Democratic Republic of the Congo

Sound hydrocarbon governance and environmental protection can inevitably lead to sustained economic growth and integral development of the country. Sustainable development

35 Adéquations, *Les acteurs du développement durable*, 2008. Cited by *Duclaux Cécile M., op. cit.*, p. 6.

36 *Déville H., Environmental Economics and Policy*, l’Harmattan, 2010, p. 37.

37 Article 58 of the Constitution of the Democratic Republic of Congo as amended by Law No. 11/002 of 20 January 2011 revising certain articles of the Constitution of the Democratic Republic of Congo of 18/02/2006, In *Journal Officiel de la RDC n° spécial*, 2011 of 05 February 2011.

also advocates the application of efficient and clean technologies that increase productivity while preserving the environment. However, economic growth as it is observable today leads to an increasingly negative social and environmental balance sheet instead of being able to take more rigorous account of natural resource management, environmental and social protection.

By way of example, the coastal zone where oil exploitation activities are carried out is not only populated and a place of important economic activities, but also the most threatened by oil pollution and by flares burning gas all day long. These consequences include the threat of an oil spill, reduced fishing opportunities and tourism, deforestation and the loss of biological diversity. Indeed, the problem of the DRC is not the absence of texts since there is more than one in the field of governance and environmental protection. However, the real problem in the DRC is the lack of a clear policy on hydrocarbon governance and environmental protection. This means that the DRC must ensure that actions are implemented by its partners in accordance with the standards and good practices of the hydrocarbon industry.

In the framework of the various hydrocarbon exploration and exploitation projects, for example, operators must have procedures in place that respect international norms and standards. First and foremost, these operating companies are required to carry out environmental impact studies before starting their work, which make it possible to quantify the potential effects of each project on the environment, but also to determine the technical means to reduce or even prevent them. Therefore, each hydrocarbon company must have, in addition to an environmental ethics policy, environmental risk management under the label of the Congolese State. Environmental ethics take into account not only the rights of people living today, both individually and collectively, but also the rights of future generations. It is therefore abnormal that in a country as rich in natural resources, particularly hydrocarbons, as the DRC, the population still lives in absolute poverty and still suffers the degradation of their environment.

If the development of future generations is not to be handicapped, the relationship between the economy and the environment needs to be managed urgently;³⁸ to hope for sustainable development in the DRC, which consists in considering the management of resources and pollution loads in relation to the self-regenerating capacity of the environment with a view to sustainable development for future generations.

D. Legal engineering of the normative governance of hydrocarbons and protection of the environment

The new law on hydrocarbons in the DRC has put in place the principles of rational management in that it sets a fairly attractive framework for hydrocarbon exploration, exploita-

38 *MbombMosau G.*, Nouvelle législation congolaise sur les hydrocarbures (première partie), Kinshasa, 2017, p. 16, available at <https://juriafrique.com>.

tion and marketing activities. The aspirations of the DRC require that Congolese natural resources be well managed and that the accumulated revenues from these resources be equitably beneficial to the entire Congolese population.³⁹

Economic growth and development are non-renewable data, which will likely prevent future generations from producing with current techniques and thus from satisfying their needs. The race for economic growth, based on investment, productivity, competitiveness and the creation of new products, generates inequalities in the distribution of added value, which then do not allow part of the population to meet the growing needs: high growth based on the exploitation of natural resources and sustainable development seem difficult to reconcile in the Congolese context, where crucial ecological considerations are to be taken into account with great consideration.⁴⁰

The DRC has significant hydrocarbon potential in its three sedimentary basins. To date, the level of crude oil production in the only coastal basin does not yet reflect the size and immensity of its reserves. On the other hand, the oil potential of the two other basins suggests that a better future for the national oil industry is in sight. Bringing all its resources into production, as well as good governance in all the sedimentary basins, will enable the DRC to generate significant revenues to achieve significant economic growth and, consequently, integral development throughout the national territory. To achieve this, legal engineering is necessary to guarantee good governance of hydrocarbons in accordance with the objectives of sustainable development (SDO) that should be developed in the following lines.

1. Good governance of hydrocarbons and sustainable development

Governance is a catch-all term used in a wide variety of contexts. The term refers to various stylised facts: good governance as the objective of reforming a legal framework, public action networks, coordination of economic sectors, public-private partnerships etc. However, in order for the DRC to achieve the objectives of sustainable development (SDO), good governance of its hydrocarbon resources at all levels is necessary, with a view to finding solutions to current problems (poverty, economic growth, road construction, water, electricity etc.).

Sustainable development governance is defined as the way of managing and directing the field of sustainable development. While governance per se, it is precisely the capacity of human societies to equip themselves with systems of representation, institutions, procedures, means of measurement, processes, social bodies capable of managing interdependen-

39 *Ouédraogo P.*, La gouvernance du développement durable, Cours de formation en ligne, Mooc, IFDD, 2018, p. 11.

40 *Swiss Agency for Development and Cooperation (SDC)*, Governance as a Cross-Cutting Theme: An Orientation Guide for its Implementation, 2007. Cited by *Ouédraogo P.*, *op. cit.*, p. 13.

cies in a peaceful manner.⁴¹ Through these definitions, we can affirm that good governance encompasses all the regulatory mechanisms of an economic and social system with a view to ensuring common objectives (security, prosperity, coherence, order, continuity of the system, sustainable development). Thus, in order to ensure its integral development, the Congolese State must put in place a clear policy for the normative governance of its wealth, particularly hydrocarbons. However, this governance of hydrocarbons in the DRC must be “capable of taking charge of relations between the different sectors of activity, between social actors, between human activities and ecosystems.”⁴²

2. Sustainable environmental protection as a consequence of normative governance

The environment and natural resources should be considered as global commons belonging to the category of non-manufactured goods which, when shared, can either be divided or destroyed. The global nature of these goods derives from the fact that each of their constituent parts is part of an integrated system. Each of us can benefit from the atmosphere, climate and biodiversity; at the same time, the entire planet is suffering from the dramatic effects of global warming, the depletion of the ozone layer or the extinction of species. This global dimension encourages shared management.⁴³

Environmental protection is the logical consequence of a clear public policy in terms of normative governance. In the framework of the environment, as regards the condition of sustainable development, i.e. living in a safe and high-quality environment, the issues at stake cover the following aspects: developing sustainable territories (cities and countryside), reducing the greenhouse effect in order to limit climate variability, preserving or restoring the quality of air, water and ecosystems, and preserving and managing major natural and technological risks. As regards the management and sharing of resources for tomorrow, i.e. intergenerational solidarity, the issues at stake include: water resources and wetlands, energy (renewable and non-renewable resources), forest resources and biodiversity. Finally, as regards the objective of producing and consuming differently, the issues at stake include: options towards a non-polluting industry, as well as producing less waste and knowing how to collect, sort and recycle it.

Thus, environmental governance refers to a collective decision-making process that brings together all stakeholders (the State, oil and gas production companies) in a partnership mode, with a view to better integrated planning and management of resources and consideration of the environmental and social consequences of planned changes. However, the current state of play in terms of environmental governance is far from meeting these imperatives. Faced with the need to respond to the complex nature of the environmental issue, it

41 *Ouédraogo P.*, La gouvernance du développement durable, Cours de formation en ligne, Mooc, IFDD, 2018, p. 8.

42 *Swiss Agency for Development and Cooperation (SDC)*, Governance as a Cross-Cutting Theme: An Orientation Guide for its Implementation, 2007. Cited by *Ouédraogo P.*, *op. cit.*, p. 13.

43 *Ouédraogo P.*, *op. cit.*, p. 8.

is essential to establish a clear policy on the governance of hydrocarbons with all the actors concerned (State, Companies, Civil Society, etc.).

Conclusion

The issue of hydrocarbon governance and environmental protection is by no means irreparable; the country already has the necessary tools (Constitution, regional and international legal instruments, laws and regulations, etc.) to exploit its hydrocarbon wealth and protect the environment. What the DRC lacks, at the moment, is the will to put in place and implement a clear policy on hydrocarbon governance and environmental protection. To achieve this, the State must take all the necessary measures to ensure good governance in the hydrocarbon sector because, it is since the 1975's that the DRC became a hydrocarbon-producing country, but all its production is exported because of its raw characteristics.

From now on, the DRC has equipped itself with a new legislative compass that can enable it to take up the major challenges that are necessary for its socio-economic development, in particular, the problem of exploration and exploitation of natural resources, the granting of hydrocarbon rights, the certification of the country's oil and gas reserves, the creation of a modern refinery capable of processing Congolese crude oil, tax evasion in the import of petroleum products, environmental protection, the fight against poverty, economic growth, the well-being of the population and integral development.

Thanks to this new hydrocarbon legislation, the DRC can now look forward to a future that allows it to face with confidence the many challenges of the sector. The Congolese hydrocarbons sector is now undergoing a process of reform for the functioning of the State, thus enabling the people to have new guarantees, an equitable enjoyment of the exploitation of hydrocarbons and above all the protection of the environment. The new regulations on hydrocarbons have provided for a whole range of advantages and innovations that will serve as levers for the revival of upstream and downstream oil activities, in order to hope for perceptible effects for the increase in the living standards of the Congolese population.