

# The tax on black gold in Senegal

By **Awa Diouf**,

doctoral student at IPAR in co-direction with the University Clermont Auvergne.

Scientific direction and supervision **Dr. Ibrahima Hathie**,  
Research Director IPAR.



With the discovery of a first oil field in 2014, followed by gas discoveries in 2015 and 2016, Senegal plans to improve its economic performance in the medium and long term. Lacking the technical expertise required to exploit this wealth, the country is considering making taxation one of the main ways to take advantage of it.

The aim of this text is to help shed light on the debate on the taxation applied to oil exploration and exploitation in Senegal, particularly with the entry into force of a new Petroleum Code in 2019. It proposes a definition of the instruments put in place and a comparison of the 1998 and 2019 Petroleum Codes according to different criteria; notably efficiency, neutrality and transparency. How is oil activity taxed in Senegal? What are the additions/misstatements of the new Petroleum Code?

## What can we learn from the 1998 and 2019 Petroleum Codes?

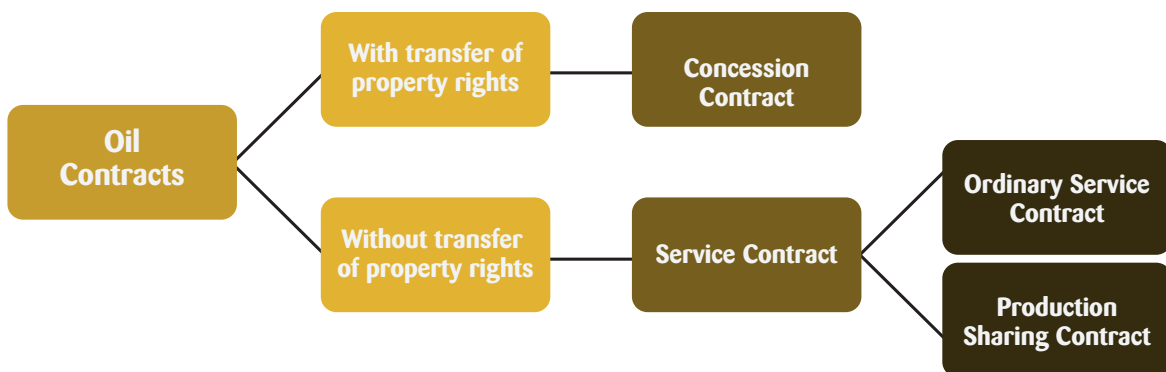
Senegal's first Petroleum Code is Law No. 86-13 of 14 April 1986 (CP-1986). This text was repealed by Act No. 98-05 of 8 January 1998 on the Petroleum Code (PC-1998). The main objective of PC-1998 was to promote the search for hydrocarbons. It proposed an advantageous tax system to attract investors. Sixteen years after the PC-1998 came into force, Senegal discovered oil deposits. It is therefore necessary for decision-makers to ensure a reasonable share of the rent, i.e. the oil profits or earnings from the exploitation of oil or gas after deduction of production costs. With Law n°2019-003 of 1 February 2019 (CP-2019), Senegal adopts a new petroleum legislation. The objective is to «(...) *have a petroleum code in line with the context of countries with high hydrocarbon potential*» (Republic of Senegal, 2019). The 1998 and 2019 Petroleum Codes are different in several respects and do not have the same objectives.

In some cases, the Petroleum Code does not provide details on how taxes are applied. With this configuration, the contract signed with the operator provides this information. Thus, when the terms and conditions for levying a tax are not specified in PC-1998, we study the research and production sharing contract for the Rufisque offshore, Sangomar offshore and Sangomar deep offshore blocks (SNE-2004 contract...) The latter is based on PC-1998 which was in force when it was signed.

### Types of oil contracts

All oil prospecting, exploration and exploitation activities require a contract between the operator and the State, which represents the people.

This contract can take several forms. In Senegal, under the 1998 Petroleum Code, there are two types of contract. The first concerns the concession contract and involves a transfer of ownership from the State to the operator. The company is therefore the owner of the oil extracted. The second type of contract does not give the right to ownership. It concerns the service contract, which can be an ordinary service contract or a production sharing contract. Under an ordinary service contract, the oil does not belong to the operator. The latter extracts it for the State, in return for remuneration. The production sharing contract is the service contract for which remuneration takes the form of oil sharing between the operator and the State (Republic of Senegal, 1998). PC-1998 provides for all three types of contracts. In PC-2019, an oil contract must take the form of a production sharing contract or a service contract.



### Titles or authorizations

The Petroleum Codes provide for all phases inherent in the extraction of petroleum. They set out the rights and obligations of the operator for each of these phases. Any prospecting, research or exploitation activity (provisional or exclusive) requires a permit. The latter may be renewed or extended as the case may be. The maximum duration of each title is specified in the Petroleum Codes. In PC-1998, a deposit can be mined for up to 47 years. This term was reduced to 30 years and 6 months in CP-2019. At the end of this period, the State may entrust the management of the deposit to PETROSEN or grant it to another operator.

## Flat-rate taxes

Unlike PC-1998, PC-2019 provides for flat-rate taxes that allow the State to collect revenue regardless of the level of profitability of the deposit. Upon signing a petroleum contract, the operator pays a **Signing Bonus** which is non-refundable. Upon acquisition, renewal and extension of securities, the operator pays a \$50,000 **Instruction Fee**. In the event of an oil discovery and holding an exclusive exploitation authorisation, the **Production Bonus** is due by the operator. Finally, during periods of research and exploitation, oil contract holders must pay **Social Expenditures** for the benefit of the populations.

## The additional levy

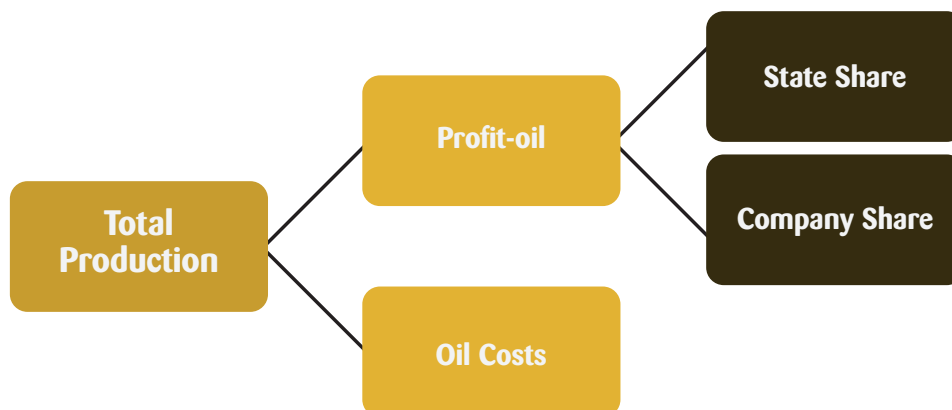
Depending on the profitability of the deposit, the **Additional Levy** is provided for in PC-1998, which does not specify how it is to be applied. However, it was repealed by CP-2019.

## The royalty on production

This tax, which is based on turnover, is provided for by the two petroleum codes. However, the implementing rules are different. Section 35 of PC-1998 states that holders of a production sharing contract are exempt from **Production Royalty**. The latter pay a share of their production to the State. However, PC-2019 requires the payment of these two taxes to holders of a production sharing contract. Finally, it should be noted that the rates in PC-2019 are higher.

## The state's share of production

Holders of a production sharing contract must pay a **Share of production to the State** after deduction of oil costs. This allows the company to recover the expenses incurred in searching for and extracting oil. The Petroleum Code sets a maximum percentage of production that the operator can recover annually for petroleum costs. Unrecovered costs can be carried forward to subsequent years without limit. The difference between oil production and oil costs is called profit oil. The latter is then shared between the State and the operator. PC-1998 refers to the contract for the definition of rates. The SNE-2004 contract sets the maximum percentage of recoverable costs based on the depth of the pool; the government's share is based on the number of barrels produced per day. PC-2019 also sets the maximum percentage of recoverable costs based on depth, with lower rates; however, the government's share depends on the economic viability of the deposit.



## The land royalty

Based on the exploited area, the **Land Royalty** is due during the research period. PC-1998 refers to the contract for this tax. PC-2019 and the SNE-2004 contract set the amount of the Land Royalty according to the period of the research title (award or renewal). However, the amounts in PC-2019 are higher.

## State participation via PETROSEN

The **State's participation** allows it, through PETROSEN, to be associated with the capital of the oil company. The State must share in the expenditure and benefit from the revenue to the extent of its participation. PC-1998 refers to the contract. The SNE-2004 contract and PC-2019 provide for a 10% participation during the research

period. For the SNE-2004 contract, this percentage can be as high as 20 or 18% depending on the depth during the operating period. For PC-2019, the State may increase its participation by a maximum of 20% during the operating period. Both texts specify that the State's participation is carried by the operator during the research period. However, during the period of operation, the State's participation is not carried by the company. This means that the State only contributes to the expenses once hydrocarbons have been discovered.

### The stability clause

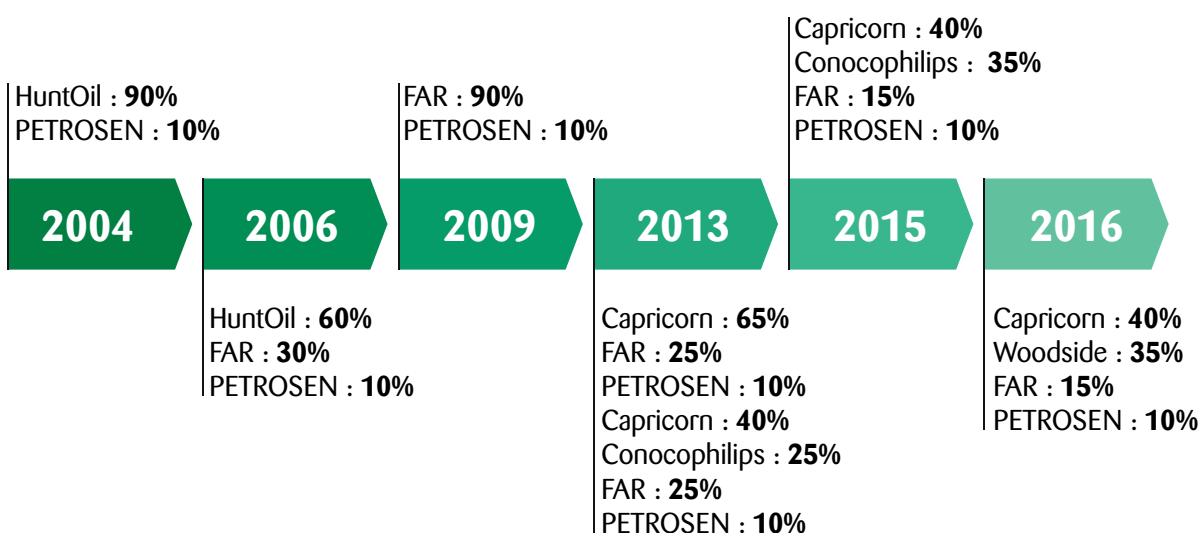
PC-1998 stipulates that the contract may include a stability clause. Section 72 of PC-2019 states that this clause allows the company to maintain the terms of the contract in the event that new measures «upset its economic equilibrium». However, expenditure related to the protection of the environment or persons, labor law and the control of oil operations are not affected by the stability clause. Similarly, PC-2019 provides for the possibility of renegotiating contracts, by mutual agreement, within 24 months of the entry into force of new legislation.

### General system taxes

Policyholders are subject to Corporate Income Tax, Flat-rate Minimum Tax, Dividend Tax and Interest Tax as provided for in the General Tax Code.

## Approach

To compare the two petroleum codes, we apply their fiscal instruments to the economic data for the SNE field. The latter covers the Rufisque Offshore, Sangomar Offshore and Sangomar Offshore Deep blocks. The contract was signed in July 2004 and approved in November 2004. The figure below shows the holders of the contract since it was signed.



We base the analysis on a Rent-sharing model that estimates the share of the government and the operator. As a reminder, the Rent is the discounted sum of the oil profits generated by the operation after recovery of oil costs. Thus, it can be 100% captured by the State without the operator incurring a loss. PC-1998 is supplemented by the SNE-2004 contract for taxes, the terms of which are set out in the oil contract.

Remember that this is only a model. The realities on the ground are different. Companies practice tax optimization to minimize government levies, including corporate income tax. Similarly, the economic data are operator estimates from 2015 (Cairn, 2015). However, the model allows us to make a comparison between the two petroleum codes because the same economic data and assumptions are applied to them.

## Comparison of Petroleum Codes by Criteria

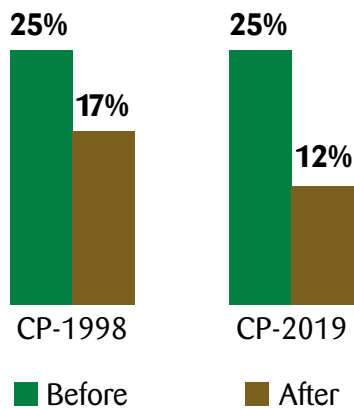
### Efficiency

To measure the effectiveness of the two petroleum codes, we calculate their Average Effective Tax Rate (AETR). This indicator is the share of oil annuity captured by the State through fiscal instruments. With an AETR of 91%, PC-2019 is more efficient than PC-1998, which has an AETR of 63%. The new code is therefore more advantageous for the State in terms of tax revenue collection.

### Neutrality

When it is too restrictive, taxation may not provide an incentive for investment by lowering the profitability of the project. Any levy made by the State reduces the investor's profit. We evaluate code neutrality by measuring, with the Internal Rate of Return (IRR), the profitability of the project before and after taxation. Figure 1 shows that PC-1998 is more neutral than CP-2019. As a result, it is more convenient for the investor.

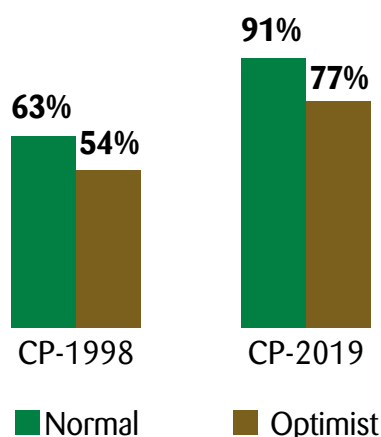
**Figure 1:**  
IRR before and after taxation



### Progressiveness

This criterion requires that the most profitable projects be better taxed. We calculate the AETR with an optimistic scenario, as provided by the operator in its estimates. In this scenario, the project is more profitable. Both codes are not progressive, because when profitability increases, their AETR decrease. However, PC-1998 is more progressive with a 9% difference between the two scenarios. For CP-2019, this difference is 14% (Figure 2). This is mainly due to the State's share of production. This levy evolves according to the daily production for PC-1998 and increases from 20% to 30% between the two scenarios, for each year. In PC-2019, the government share is based on factor R (Cumulative Income/Cumulative Investment). Thus, we see an increase of 5% for four years and 10% for five years. For other years, the rate does not change. As a result, the terms and conditions for the State's share of PC-1998 make the Petroleum Code more progressive.

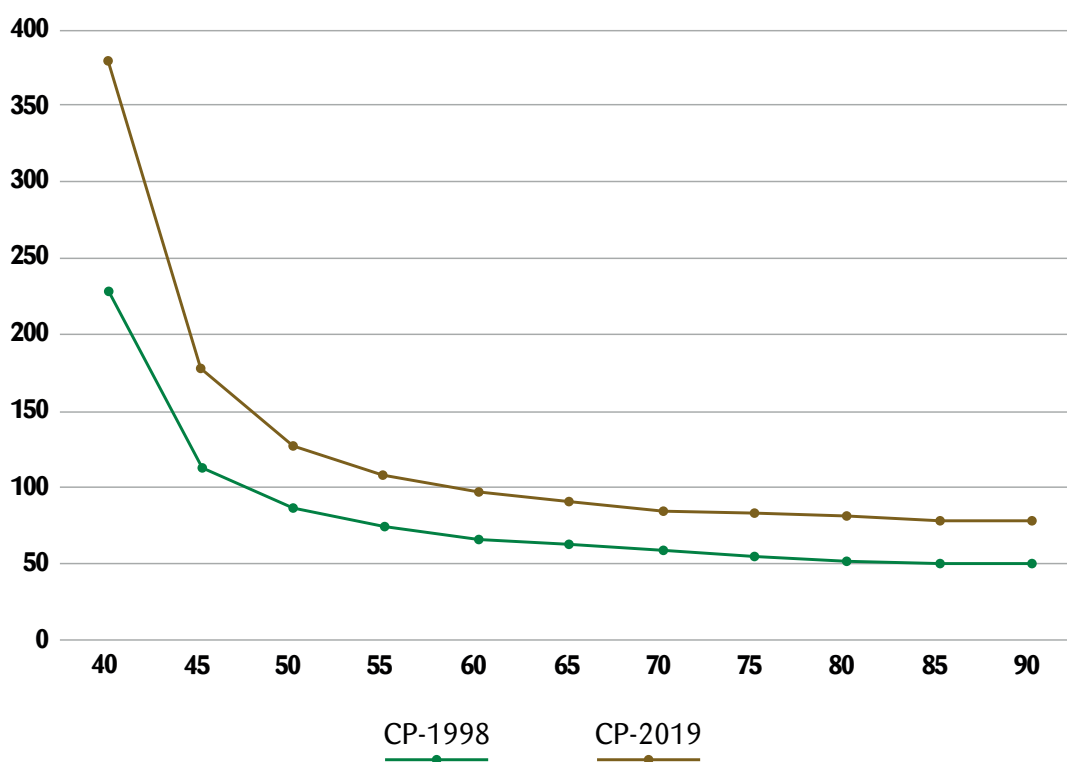
**Figure 2:**  
METRs with two scenarios



### Flexibility

The flexibility of the Petroleum Code allows for risk sharing between the State and the company in the event of a decline in the project's profitability. Here, it refers to its ability to adapt to the trend of the barrel. What is the sensitivity of the two Oil Codes to changes in the price per barrel? To answer this question we calculate the AETR for different barrel prices. When the Barrel price drops, the AETR rises, penalizing the company. Indeed, despite the unprofitability of the project, the State still levies lump-sum taxes, as well as taxes based on production and interest. Also, even if the Corporate Tax is nil, since the company is not making a profit, the Flat Rate Minimum Tax (based on turnover) is paid. The codes are not flexible in relation to the Barrel price. Indeed, the State guarantees itself revenue, even when the price per barrel is low. However, it cannot take advantage of an increase in the price per barrel to increase its rent share because the AETR falls when the price per barrel rises.

**Figure 3:**  
METRs as a function of barrel price



### Transparency

In Article 55, PC-2019 includes an obligation for operators to comply with the requirements of the Extractive Industries Transparency Initiative (EITI). Article 56 states that «*All oil revenues due to and received by the State, including social achievements made by oil and gas companies, are communicable to any person and shall be made public*» (Republic of Senegal, 2019). This allows for greater transparency in oil management and could help to combat corruption.

### Fight against corruption

Sometimes, the Petroleum Code refers to the contract for the terms and conditions of application of a levy. This encourages corruption because the amounts or rates can be negotiated without constraint. Where the code sets out the terms or a range, the negotiations are more focused. PC-1998 refers to the contract for the sharing of production between the State and the operator, the maximum rate of recoverable oil costs, the land royalty, the additional levy and the State's participation. PC-2019 refers to the contract for lump-sum deductions: the signature bonus, the production bonus and social expenses. Thus, PC-2019 appears less vulnerable to corruption.

## Protection of the environment

Sections 51 and 53 of the 1998 and 2019 Codes provide, respectively, for an obligation on the part of the operator to protect the environment. However, PC-2019 provides more details on the terms and conditions. Both codes also include an obligation on the part of the operator to provide compensation for damage suffered by persons in the course of their activity. Since the oil is offshore, i.e. at sea, fishing could be affected by the activity, although the Environmental and Social Impact Assessment (ESIA) of the SNE project suggests that these impacts will be limited, barring an accident.

## Consideration for future generations

«Each generation owes to the next what it received from its predecessors, an established social order» (Erenst Renan). Contrary to PC-1998, PC-2019 stipulates, in its article 5, that «*The management of oil revenues guarantees inter-generational savings in particular and responds to the need for development by promoting public investment in sectors likely to increase the country's economic growth potential*». (Republic of Senegal, 2019). The terms and conditions for the distribution of oil revenues are set out in the Act Respecting the Management and Distribution of Revenues from Petroleum Development.

## Conclusions and policy recommendations

Senegal adopted PC-2019 to guarantee «(...) *the safeguarding and securing of the economic and financial interests of the Senegalese people, while preserving the attractiveness and competitiveness of the country* (...). «(Republic of Senegal, 2019). The latter, compared to PC-1998, captures a larger share of the rent. It considers future generations, reduces the risk of corruption and incorporates the requirements of the EITI. However, PC-1998 allows for better taxation of the most profitable deposits. It is also more neutral for the operator. Based on the results, the following recommendations/comments can be made:

- In CP-2019, the production royalty and the State share of production are applied on the same basis. A production sharing contract holder, because it pays a share of production to the State, may not be subject to the production royalty that would be more relevant to concession contracts (as in PC-1998). If the State wants to reduce the risk of low recovery, it could apply a lower production royalty rate to production sharing contract holders.
- According to the modelling, the government's share of production appears to be more progressive if the levy is aligned on daily production. This modality could be retained and rates could be increased for each tranche or the PC-2019 modalities could be made more progressive.
- The operator shall not pay the land royalty during the period of operation. It is considered that the payment of a share of the production to the State does not justify an exemption from the land royalty. Indeed, this tax is not based on production. It is owed by the operator because the latter has, for a limited period of time, an area belonging to the Senegalese State.
- A number of taxes are not recoverable from oil costs. These are the signature bonus, the production bonus, social expenses and training fees. Some of these expenses inherent in the extraction of oil may be recoverable as oil costs. However, non-recoverable signature bonuses can be a way for the State to show the attractiveness of its resources.
- PC-2019 increases the level and number of samples. It also removes tax benefits granted to the operator by PC-1998. This encourages tax optimization practices that can lower government levies.
- The State must ensure that oil contracts comply with the Petroleum Code in force. Indeed, the additional levy is present in the PC-1998 but not in the SNE contract signed in 2004. This allows the operator not to pay this levy based on profitability. If these practices continue, future contracts will not be in line with PC-2019 and the reforms will be unnecessary.
- To better combat corruption, a standard production-sharing contract between the State and the operator can be established to be more precise on the modalities of application of certain flat-rate taxes. If no amount is provided for in the legislation, negotiation is done à la carte, which encourages corruption.

- A clear definition of certain concepts would allow a better understanding of the Petroleum Code, notably the depth of the deposit to get the royalty rate on production. When is a deposit considered deep, shallow, ultra-deep? Note that the definition of these terms varies with technical development. It would then be advisable to give more details in the Petroleum Code.
- Environmental protection is crucial because Senegal's oil is offshore. Some countries dedicate a tax to environmental protection. Senegal could, in the distribution of oil resources, include a percentage for environmental protection and support for fisheries, which are threatened by oil activity. Similarly, an upgrading of the Environmental Code and a strengthening of the activities of the Direction de l'Environnement et des Établissements Classés (DEEC) would allow for better management of environmental issues.
- Can the SNE contract be renegotiated? Article 33 provides for a possibility for the parties to renegotiate the contract by mutual agreement. The results show that an update of the contract in accordance with the provisions of PC-2019 would be beneficial to the State. However, the operator would be penalized. As a result, it would find it difficult to accept an integration of the levies and procedures provided for in CP-2019, in particular the production levy. The State could propose a partial consideration of CP-2019.

### Legal works and texts

Cairn (2015) Capital Markets Day, Senegal - Building on Success.

Republic of Senegal (1998) Act No. 1998-005 of 8 January 1998 on the Petroleum Code.

Republic of Senegal (2004) Research and Production Sharing Contract Rufisque Offshore Sangomar Offshore Deep.

Republic of Senegal (2019) Law n°2019-003 of 1 February 2019 on the Petroleum Code.

