Chad

Petroleum Sector Diagnostic Report

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Acknowledgements

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<th>Description</th>
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<tbody>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
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<tr>
<td>Bbls</td>
<td>Barrels</td>
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<tr>
<td>Bcf</td>
<td>Billion cubic feet</td>
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<td>Bn Bbls</td>
<td>Billion barrels</td>
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<td>BOD</td>
<td>Board of directors</td>
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<tr>
<td>Bopd</td>
<td>Barrels of oil per day</td>
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<td>CAR</td>
<td>Central African Rift</td>
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<td>CASZ</td>
<td>Central African Shear Zone</td>
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<td>CEMAC</td>
<td>Monetary and Economic Community of Central Africa.</td>
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<td>CNPCI</td>
<td>China National Petroleum Corporation International Limited</td>
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<td>Cost Oil</td>
<td>The share of production that contractor can use to recover costs incurred in exploring for, developing and producing oil and gas.</td>
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<td>CTNSC</td>
<td>National technical committee for the elaboration, oversight and control of execution of environmental management plans of petroleum projects.</td>
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<tr>
<td>DEELCPN</td>
<td>Department of environmental evaluation, control of pollution and noise.</td>
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<td>DGDDI</td>
<td>Customs directorate.</td>
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<td>DGI</td>
<td>Tax directorate.</td>
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<tr>
<td>EIS</td>
<td>Environmental impact study.</td>
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<td>EITI</td>
<td>Extractive Industry Transparency Initiative.</td>
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<tr>
<td>EMP</td>
<td>Environmental management plan.</td>
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<td>Government</td>
<td>The government of the Republic of Chad</td>
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<td>Government Take</td>
<td>The Government’s percentage of pre-tax project net cash flow excluding state participation.</td>
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<tr>
<td>HSE</td>
<td>Health, Safety and Environment</td>
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<td>HR</td>
<td>Human Resources</td>
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<td>ICA</td>
<td>Institutional Capacity Assessment</td>
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<tr>
<td>IFP</td>
<td>French Petroleum Institute</td>
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<tr>
<td>IT</td>
<td>Information technology</td>
</tr>
<tr>
<td>km</td>
<td>Kilometers</td>
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<tr>
<td>km²</td>
<td>Square kilometers</td>
</tr>
<tr>
<td>MEF</td>
<td>Ministry of Environment and Fishery</td>
</tr>
<tr>
<td>MFB</td>
<td>Ministry of Finance and Budget</td>
</tr>
<tr>
<td>MM Bbls</td>
<td>Million barrels</td>
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<td>MPE</td>
<td>Ministry of Petroleum and Energy</td>
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<tr>
<td>NOC</td>
<td>National oil company</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>OHADA</td>
<td>Organization for the Harmonization of Company Law in Africa</td>
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<td>Operator</td>
<td>The company designated to carry out some or all of the petroleum operations in the area covered by a petroleum contract</td>
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<td>PEFA</td>
<td>Public Expenditure and Financial Accountability</td>
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<td>Petroleum contract</td>
<td>A PSC or a concession agreement</td>
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<td>Profit Oil</td>
<td>In PSCs profit oil (or profit gas) is the revenue that remains after deduction of royalty and cost recovery.</td>
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<tr>
<td>PSC</td>
<td>Petroleum Sharing Contract</td>
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<tr>
<td>R-Factor</td>
<td>A profitability index that reflects the ratio of cumulative revenue to cumulative costs.</td>
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<tr>
<td>SHT</td>
<td>Hydrocarbon Company of Chad</td>
</tr>
<tr>
<td>State Take</td>
<td>The Government’s percentage of pre-tax project net cash flow including state participation.</td>
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<tr>
<td>TA</td>
<td>Technical assistance</td>
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<tr>
<td>Tax Oil</td>
<td>The State’s share of Profit Oil</td>
</tr>
<tr>
<td>Tcf</td>
<td>Trillion cubic feet</td>
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<tr>
<td>Transparency Law</td>
<td>Law no. 018/PR/2016 on the transparency and good governance of the public administration</td>
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<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WCAR</td>
<td>West Central African Rift</td>
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Report context

What does this report aim to do?
This report contains an assessment of the approach that the Republic of Chad has adopted or plans to adopt to enhance the benefits generated by the exploitation of its petroleum resources, and to manage the economic and social impact of such exploitation in a sustainable and equitable manner. Its objective is to inform the extent and prioritization of petroleum sector reforms, which might be the object of technical assistance to be provided by the World Bank and other development partners. The report focuses on the upstream part of the petroleum sector (exploration and production), where the largest fiscal and governance gains can be achieved.

The report is necessarily a high-level review of geological potential, laws and regulations, and institutional capacity and organization pertaining to the petroleum sector. As such, it is not a guide on how to secure private sector investment or implement reforms. It was prepared in a short period of time combining desk research and in-country stakeholders’ consultation with the accumulated knowledge from several World Bank economic and sector studies and technical assistance operations and reflects the openness of the dialogue with the Government. Its findings are intended as background for discussion with the Authorities with the aim to identify a shared assessment of needs and priorities.

Who is this report aimed at?
This report is intended for use by World Bank management and technical staff to inform the design of potential technical assistance and advisory programs, as well as the preparation of sector engagement strategies. It may also be useful for the Ministry of Petroleum and Energy, the Ministry of Environment and Fishery, the Ministry of Finance and Budget, the national petroleum company and other government entities to help them identify capacity and reform needs.

How is this report structured?
This report is organized in five chapters as follows:

Chapter 1. Chad’s Petroleum Resource Base and Potential. This chapter is intended to provide a framework for the identification of measures that the public sector could take to promote private investment in the petroleum sector. To this end, this chapter outlines, in laymen terms, the geological potential of the country, and current estimates of proven, probable and possible reserves of oil and natural gas. This chapter also contains an analysis of private sector companies involved in Chad’s oil and gas exploration, their profiles and area of operation.
Chapter 2. Petroleum Sector Legal and Regulatory Framework. This chapter contains an overview of the legal and fiscal framework for the oil and gas sector, with focus on upstream activities. It summarizes the key provisions of the Petroleum Law, concession agreements and PSCs, and identifies discrepancies with international practice, specific implementation issues (where possible), and areas for improvement.

Chapter 3. Petroleum Sector Institutional Framework. This Chapter reviews the institutional and organizational structure of the Ministry of Petroleum and Energy (MPE), the Hydrocarbons Company of Chad (SHT), and other relevant bodies tasked with the management and oversight of the petroleum sector, particularly the Ministry of Finance and Budget (MFB) and the Ministry of Environment and Fishery (MEF). Potential institutional reforms and measures to improve institutional effectiveness and inter-ministerial coordination are also suggested.

Chapter 4. Transparency and Accountability in the Petroleum Sector. This chapter focuses on the transparency and controls in the management of the petroleum sector in Chad, with emphasis on the status of initiatives currently underway to improve sector governance, and considerations on their long-term success.

Chapter 5. Overall Assessment and Areas for Potential Engagement. This chapter builds on the findings of all preceding chapters and contains an overall assessment of the approach that the Republic of Chad has adopted or plans to adopt to enhance the benefits generated by the exploitation of its petroleum resources following the Extractive Industry Value Chain Methodology developed by the World Bank. This chapter proposes areas where additional work or technical assistance would help the Government to strengthen its approach and further boost the contribution of the petroleum sector to sustainable and resilient economic development.
Executive Summary

Harnessing the petroleum sector for fiscal sustainability remains a priority in Chad’s first long-term development strategy, ‘Vision 2030’ (Vision 2030: le Tchad que Nous Voulons). Over the past three decades, growth and economic performance have been largely dominated by oil and security. Since the start of oil production in 2003, Chad’s GDP per capita rose from US$220.8 in 2002 to US$669.9 in 2017, setting Chad well above other low-income countries (although still far from average Sub-Saharan Africa). During the oil boom years, oil revenues significantly increased to peak in 2011 at US$2 billion (or 76 percent of total revenues) and reached an average of 11 percent of non-oil GDP (half of total revenue) between 2013 and 2015. Over a decade of reliance on oil has somewhat reduced incentives to diversify the economy and promote competitiveness, leaving the country more vulnerable to exogenous shocks. However, paradoxically strengthening economic resilience, in the short to medium term, will inevitably be driven by the petroleum sector.

Many factors affect Chad’s ability to improve the benefits derived from the exploitation of its petroleum resources. Some of these factors are exogenous, such as oil prices and the cost of equipment and materials. Others are internal, such as efficiency gains, attractiveness to investors, and good governance. The petroleum sector could also be used to reduce Chad’s exposure to price and production-related shocks, as well as to lay the basis for a more diversified economy, which in turn would increase resilience in the face of exogenous shocks and economic cycles, create productive jobs, and lay the foundation for sustainable and inclusive growth. To achieve these outcomes, a clear sector policy, competent and well-funded institutions, and effective oversight processes are a critical priority.

After almost a decade of absence from the petroleum sector, the World Bank recently engaged a dialogue with the Authorities on the back of a fiscal consolidation program aimed at restoring fiscal sustainability after a sharp decline in oil-price. The focus of current technical assistance and budgetary support operations is thus on the mobilization and management of revenue generated from current activities through strengthening the generation and use of information as decision-making tool for the national oil company (Société des Hydrocarbures du Tchad or SHT), refocusing the petroleum revenue management law as fiscal policy tool, undertaking cost audits of petroleum companies, and strengthening transparency in the management of petroleum contracts through their regular publication and the establishment of a petroleum cadaster. A broader and coherent sector level approach is necessary to identify ways for Chad to capitalize on its exploration and development potential going forward.

This study aims to identify the strengths and weaknesses of Chad’s current approach to the exploitation of its petroleum resources, and the management of the economic and social impact.
of such exploitation, with focus on promoting competitiveness and laying the premises for in-country value creation. To this end, priority reforms and measures are identified for discussion and validation with the Authorities, and potential inclusion in future technical assistance projects of the World Bank or other donors. These priorities are grouped under common themes and summarized below. Detailed prioritization of suggested reforms and initiatives is provided in Annex 5.B.

a. **Defining and disseminating sector policies.** Law 006/PR/2007 (Petroleum Law) contains general principles on the importance of optimizing petroleum recovery and the conservation of reservoirs, as well as the protection of the environment. However, such principles are not reflected in a cohesive and forward-looking petroleum sector policy. Clear goals expressed in a sector policy are important to devise institutional arrangements that work towards achieving them. A clear and broadly communicated sector policy also serves as signal to the market to guide investors’ behavior. There is currently no indication that such policy is being considered, and existing donors’ programs do not appear to be vested in this area. *This is suggested as a short-term priority, that is an activity that should be initiated prior to starting a program of reforms.*

b. **Promoting the optimal development of petroleum resources.** Chad’s upstream industry is relatively immature. The country’s geology suggests that further discoveries should be possible. Current investors are either large corporations who control all the production in the country, or very small companies that appear undercapitalized and not aggressively pursuing activities on their blocks. Targeted licensing and promotional strategies are needed to foster further development of the sector and ensure acreage turnover and activity. These measures are a necessary complement for existing technical assistance (Domestic Resource Mobilization and Management Project) which focuses on the establishment of a geo-referenced cadaster and petroleum data management system. *This is considered a medium term-priority, that is activities that should be undertaken after adequate institutional capacity and clear legal framework are established.*

c. **Harmonizing the system of laws, regulations and contracts.** While the Petroleum Law is broadly in line with good international practice, implementing regulations lack clarity and coherence, and there are several instances of conflict of provisions with the model PSC. The model PSC regulates aspects that are normally the object of regulations. Petroleum contracts appear to regulate the environmental matter of their own, leaving potential grey areas regarding the compatibility of such contractual provisions with environmental regulations, particularly since contracts refer to industry practice as the guiding principle for environmental management and protection. *This is considered a short-term priority action.*

d. **Strengthening institutions and institutional capacity.** The authority and resources available to government entities that intervene in the management and oversight of the petroleum sector should be commensurate with their responsibilities. An Institutional Capacity Assessment (ICA) of the MPE and of other entities that intervene in the governance and oversight of the petroleum sector would shed lights on the strengths and weaknesses of such institutions and pave the way for targeted reforms. The ICA is
recommended to guide the design of the roles and responsibility of sector institutions, harmonize laws and regulations, and ensure that human and capital needs of sector institutions are addressed. Inter-ministerial cooperation and overlapping roles among the Ministry in charge of petroleum, the Ministry in charge of environment, and the Ministry in charge of finance would benefit from clarifications, with a view to improve their effectiveness, and the investment environment. Finally, corporate governance reforms of the SHT would help to give this company the centrality and authority that are necessary to achieving its mission. The ICA is considered a short-term priority action, followed by targeted capacity building, and accompanied by performance matrices which complexity and transparency should grow overtime in line with the institutional capacity to deliver.

e. **Administering and collecting taxes and royalty.** This is an area where major efficiency gains could be achieved. The priorities in this area are to ensure that audits of petroleum operations and companies are carried out on a regular basis, risk-based audit strategies are developed, and internal audit capacity is nurtured. Simplification of tax administration procedure, and increased use of information technology and standardized reporting requirements for companies should also be considered. This is considered a short-term high priority action.

f. **Managing extractive industry revenues.** Chad needs to address multiple challenges in order to manage its extractive industry revenues, including: (i) ensuring that extractive resource revenues are transformed into other forms of reproducible and productive capital, in order to offset the depletion of the sub-soil assets and promote long-term growth; (ii) insulating the budget from fluctuating resource revenues and political pressures to increase spending above sustainable levels; and (iii) counteracting the negative effects that large flows of extractive industries revenues could have on the real exchange rate and on the prospects for economic diversification. From a macroeconomic perspective, further work is urgently needed to identify a sustainable fiscal path for Chad’s non-oil primary deficit, and to establish suitable fiscal policy tools. Efforts in this direction are supported by the recently approved Economic Recovery and Resilience Development Policy Operation and by the Domestic Resource Mobilization and Management Project that envisages funding to support the establishment of the relevant legal and regulatory framework. The World Bank has also provided technical assistance to the MFB for setting up a long-term macro-economic model to help define the Government’s fiscal policy stance.

g. **Setting the basis for sustainable development.** Chad does not have a specific policy for leveraging the petroleum sector investments for in-country value creation and economic diversification. Basic provisions in petroleum contracts require companies to "consider" local recruitment, establishing training programs, and give priority to Chadian companies for service and construction contracts, subject to qualifications with respect to industry standards, price, quantity, timing, delivery and payment conditions. The SHT is tasked with the promotion of local enterprises. Analytical work is required to assess the current and future potential for in-country value creation in connection with petroleum activities, including the potential for petroleum sector-led green growth. This is considered a medium-term priority.
While reforms and measures identified under points b and f above are to some extent already addressed in existing technical assistance programs of the World Bank, there is currently no indication that other reforms and measures identified above are being considered by the Government, and existing and planned donors’ programs do not appear to be vested in these areas.

**What further analytical work is needed?**

This report has highlighted several areas where additional analytical work could be usefully carried out. There is scope to further our understanding:

- **The nature of the major impediments to the MPE’s and other relevant institutions’ ability to obtain and maintain the resources, including human capital, necessary to carry out their missions.** To this end, an *Institutional Capacity Assessment (ICA)* is a critical tool to support the design of institutional reforms aimed at shoring up capacity and the ability to respond to changes that affect these critical institutions for Chad’s economic development (MPE, the MEF and its agency, and the relevant part of the MFB). This report identifies the ICA as a short-term high-level priority; and

- **How existing and planned petroleum sector activities and infrastructure investment could be leveraged to foster in-country value creation.** To this end, a *GeoChains analysis* would help the government to identify opportunities and strategies to facilitate and accelerate the market-driven development of local industries. GeoChains is a powerful tool for local economic diversification in regions where the extractive sector is a significant share of the local economy. Ideal conditions include: a long-lasting mineral resource base; the presence of multinational extractive companies willing to test innovative approaches to deliver lasting local impact; and the existence of economic diversification imperatives. The suggested analysis would lay the ground for the identification of sustainable development policies and projects in the medium term.
1. Chad’s Petroleum Resource Base and Potential

“Good geology” in a petroleum exploration and exploitation context means the presence and effectiveness of three key elements: a mature source rock or rocks; in communication with one or more reservoirs; located in trapping mechanisms formed before petroleum migration occurred that have remained un-breached/sealed. While these fundamentals are proven in most of Chad’s sedimentary basins, sustainable exploitation depends upon the firm implementation of best industry practice and underpinned by empowered regulatory authorities.

To ensure the optimal exploitation of the nation’s resources and reserves, attracting a broad range of oil and gas companies is often a successful strategy. Different types of companies intervene at different stages of an asset life, thus boosting competition and domestic market growth. Some specialize in certain plays, while others cover all segments of the oil and gas value chain like exploration or late-field life by taking over depleted fields and win additional reserves via the application of technologies combined with a reduction in overhead. Access to infrastructure is also a critical factor, particularly for a landlocked country like Chad. A proper sector promotion strategy should take these elements into consideration.

This chapter seeks to capture the essential elements of the working petroleum systems recognized in the sedimentary basins of Chad, the location and volume of reserves and resources based upon production to date, sanctioned field developments and exploration activities. Chad’s production has been dominated by the ExxonMobil-led Doba concession, although this flagship development is declining steadily. Comments are also included on and from the key players in Chad’s upstream petroleum sector. Finally, some consideration is given to means of fostering further exploration and private investment in the petroleum sector.

Key take-aways

- Chad’s upstream industry is relatively immature, with a mere 15-year production history. It has a proven petroleum system, with large basinal areas for further exploration. According to industry experts, Chad may hold around 40 Bn Bbl of oil and 40 Tcf of gas of potential yet-to-find, conventional resource, which suggests that further discoveries should be possible. In addition, only 40 percent of the original proved reserves of 1.5 Bn Bbls of oil are said to have been produced from the production licenses in the Doba basin, and undeveloped, but discovered oil in place is estimated to be 475 MM Bbls of oil equivalent, of which about 130 MM Bbls oil equivalent could be considered as contingent resources.

- Chad’s oil and gas sector players comprises large corporations who control all the production in the country, and very small companies that appear undercapitalized and
not aggressively pursuing activities on their blocks. As a medium-term priority, targeted licensing strategies to match players’ profiles to the type of acreage being offered, and insistence on minimum work programs and mandatory relinquishments for existing contract and license holders would help to foster exploration and level of activity in the sector.

- A comparison of Chad with analogous basins with a more mature production history or a more active exploration focus suggests that there should be no fundamental technical reason holding back the development of Chad’s petroleum sector. A combination of market research, improved marketing of opportunities, updated knowledge of resources and reserves via an independent audit (including estimates of yet-to-find petroleum) would help to unlock the country’s potential. However, without immediate focus on reforms to improve the regulatory and investment framework, the ability of Chad to attract new and different types of investors would likely be limited.

1.1 Overview of Petroleum Sector

Chad currently produces around 132,000 barrels of oil per day (Bopd), produced by three operators: ExxonMobil, CNPCI and Glencore. All production is located within the three sedimentary basins of Southern Chad: Doba, Doseo and Bongor. A working petroleum system is proven in a fourth sedimentary basin, the Termit basin of western Chad. Significant reserves, reported at around 1 Bn Bbls of oil, and production of 20,000 bopd has been established recently in that portion of the Termit basin that extends into Niger. But to date no sanctioned developments have occurred in the Chad portion.

Figure 1.1 Main Sedimentary Basins of Chad

The established and successful plays that support current production levels and the likely approval of new developments that can be linked to the existing tie-ins and export pipeline infrastructure suggest that current production levels could be maintained over the next few years. However, the fields associated with the Doba concession are declining steadily at about 10 percent per annum, leaving the Chad-Cameroon pipeline under-utilized. Production from reserves addition is required to maintain efficient use of the 225,000 bopd Chad-Cameroon export pipeline and supply the 20,000 bopd N'Djamena refinery.

Based on experience elsewhere around the world, more intense exploration using 3D seismic and integrated basin analysis has the potential to result in reserves growth in established plays. In addition, CNPCI’s recent success in testing the potential of the fractured basement in the Bongor basin suggests that this deeper play may be developed in the other basins. To this end operators could be encouraged to deepen exploration and/or development wells where appropriate. Stratigraphic plays such as turbidite sand reservoirs have been proven in analogous basins where exploration is at a more mature stage and should be evaluated in Chad’s sedimentary basins as the exploration database expands.

While some operators, such as CNPCI and Glencore appear to be pursuing aggressive exploration programs, smaller (perhaps less well funded) players would seem to have secured large acreage positions with minimal exploration work programs and little, if any, activity. A review and comparison of “dormant” acreage, minimum work programs and mandatory relinquishments compared to competitor countries with analogous opportunities should be considered by the MPE, followed by the promotion of new licensing opportunities.

1.2 Resources and Reserves

The sedimentary basins of Chad, in which petroleum has been proven to be generated and trapped in conventional reservoirs, comprise the Mesozoic (Cretaceous to Tertiary) sub-basins of the Central African Rift (CAR) and West Central African Rift (WCAR) systems located in the south and west of the country (Figure 1.1).

The Palaeozoic Erdis/Kufra basin that extends into northeast Chad from Libya and Sudan has not yet been proven to contain a working petroleum system and there is considerable uncertainty as to the presence of organic-rich source rocks. The Lower Silurian Tannezuft Formation “hot shale”, the main source rock in the Murzuq Basin of Libya, was absent in the Kufra basin exploration wells drilled by Ente Nazionale Idrocarburi SpA across the border in Libya during the late 1970s and early 1980s.

The three CAR sub-basins of Bongor, Doba and Doseo, plus the WCAR Termit basin, which is the most eastern and southern extension of the WCAR system, have all demonstrated working petroleum systems in terms of discoveries, developments and production. The lightly explored, Mesozoic Salamat sub-basin (CAR) has not yet revealed any petroleum potential.

The WCAR systems were initiated in response to crustal thinning and wrench-related extension during the break-up of the Gondwana Super-continent, the opening of the South Atlantic and the separation of Africa from Latin America (Figure 1.2). The West and Central African Rift
systems extend to the west and south respectively, to link with the Benue Trough, which is related to the Romanche and Jeanne Charcot Transform Zones in the Gulf of Guinea (see also Figure 2.8).

**Figure 1.2 South Atlantic rifting and Graben formation**

The four CAR sub-basins are fault-bounded grabens (valleys) that, following initial rifting, lead to erosion of rift shoulders and the deposition of fluvial sands and gravels during the early-mid Cretaceous (Figure 1.3). These sediments overlie largely Palaeozoic to pre-Cambrian basement and are either interleaved with, or succeeded by, finer sands and shales, depending on the depth and longevity of the developing lake environment as crustal extension continued in the mid to late Cretaceous. The deeper lakes develop anoxic (oxygen starved) environments that preserve large volumes of organic matter in shales that can become prolific oil-prone source rocks on reaching thermal maturity.

**Figure 1.3 Sedimentary depositional systems**

Source: Schlumberger Oilfield Glossary ([https://www.glossary.oilfield.slb.com](https://www.glossary.oilfield.slb.com))
The WCAR Termit basin (Figure 1.4) that extends northwards into Niger (Grein, Kafra and Tenere basins) contains fluvial sands and gravels in the earliest phase of rifting, followed by middle rift lacustrine shales in the early Cretaceous. In the late Cretaceous, the Termit basin was linked to the nascent South Atlantic and marine sediments predominate with a return to fluvial-lacustrine deposits in the Tertiary. The marine influence differentiates the Termit basin from the other productive basins as marine source rocks are more likely to produce lighter (e.g. 40° on the American Petroleum Institute gravity scale) non-waxy, non-viscous crudes with higher gas-oil-ratios (associated gas in solution) that will attract a better price than the heavier crudes.

Because of these depositional influences, the Termit basin petroleum system is a mixture of lacustrine and marine environments in terms of source and reservoir rocks. Discoveries have been made in the late Cretaceous to Tertiary (e.g. Kanem-1), mid-late Cretaceous (e.g. Sedigi-1) and the early Cretaceous (e.g. Kumia-1).

The full extent of the Termit basin, within Chad and Niger is approximately 150,000 km², with a sedimentary section up to 12 km thick. The discoveries made in the Chad portion of the basin (around 25 percent of the total area) have not justified any development to date, but the potential of the basin is clear.

Figure 1.4 SW to NE Cross Section of the Termit Basin from Nigeria to Chad

Source: United Hydrocarbon International Corp., 2013
Around 90 percent of the oils discovered in the CAR sub-basins are relatively heavy (17-25\textdegree{ API}), waxy, undersaturated with gas and probably biodegraded. The most likely source rocks are the lacustrine shales containing preserved organic matter of land plant and periodic algal bloom origin. Conventional reservoirs that are proven within the CAR sub-basins are the fluvial sands that may be stacked, channelized and/or braided packages, occasionally deltaic, but most frequently, thinly bedded and 5 meters or less in vertical thickness.

The major discoveries of the Doba-Doseo basins (e.g. Kome field) are located in the late Cretaceous, late syn-rift section, although deeper wells in Kome and the Mango-1 discovery demonstrate potential in the middle syn-rift of approximately mid-Cretaceous age (Figures 1.5).

![Figure 1.5 Doba Basin Schematic Cross Section](image)

Compression and uplift in the Tertiary were due to transpression along the dextral (right-lateral) Central African Shear Zone (CASZ), which trends WSW-ENE cutting through or defining a boundary fault zone in the Doba, Doseo and Salamat sub-basins. The transpression resulted in the formation of flower-structures (Figure 2.6) typical of such tectonic terrains providing trapping mechanisms given the presence and non-breaching of top-sealing shales, followed by further subsidence and deposition related to concomitant transtension. Other structural traps largely comprise fault-dip closures associated with rotated fault-blocks with or without a compressive component.
The US Energy Information Administration (EIA) and Advanced Resources International Inc. published an estimate of oil and gas likely to have been generated in the Termit, Doba, Doseo and Bongor basins based upon modelling the potential source rock volumes, degree of organic richness and kerogen type (EIA, 2015). The potential oil thought to have been generated is impressive at nearly 400 Bbls and in excess of 400 Trillion cubic feet (Tcf). In terms of oil generated, the Bongor, Doba and Doseo basins represent around 80 percent, with the Doseo basin making up over half of this.

These hydrocarbon volumes thought to have been generated include a large proportion that will almost certainly not migrate away from the source rock ‘kitchens’ in the deeper parts of each basin into reservoirs within sealed traps. Up to 10 percent of these volumes could be reasonably expected to become trapped in conventional reservoirs (around 40 Bn Bbls of oil and 40 Tcf of gas) representing a considerable, potential yet-to-find, conventional resource.\(^1\) Of this, the recoverable amounts could be on the order of 10 Bn Bbls of oil and over 20 Tcf of gas. In addition, unconventional resources (shale oil and shale gas) could present further long-term opportunity although outside North America the development of unconventional resources has

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\(^1\) This report uses the Society of Petroleum Engineers’ definition of “resources” and “reserves.” Resources include all quantities of petroleum naturally occurring within the Earth’s crust, discovered and undiscovered (recoverable and unrecoverable), plus those quantities already produced. Further, it includes all types of petroleum whether currently considered conventional or unconventional. Reserves refers to quantities of petroleum anticipated to be commercially recoverable from known accumulations from a given date forward. For a detailed definition and guidelines refer to https://www.spe.org/industry/reserves.php.
proven challenging. **These estimates are indicative only and should not be relied upon by the government or investors.**

Chad’s original ‘proved’ reserves have been reported at around 1.5 Bn Bbls. This is indicated in Figure 1.7, which also provides other resource estimates and shows Chad’s basin connectivity to adjacent countries.

**Figure 1.7 Regional basin outlines and indicated reserves and resources**

![Map of Chad's basin connectivity and resource estimates](http://www.unitedhydrocarbon.com/operations/chad-africa/)

Source: United Hydrocarbons (http://www.unitedhydrocarbon.com/operations/chad-africa/)

According to BP’s January 2018 statistical review over 40 percent of Chad’s reported proved reserves of 1.5 Bn Bbls, that is 635 MM Bbls, have been produced from four production licenses in the Doba Basin fields operated by ExxonMobil, although these estimates are not independently verified (Figure 1.8). **This implies that as of the end of 2017 around 900 MM Bbls remains to be produced from the fields and areas that contributed to the original estimate.** These numbers should exclude discovered resources that have not yet been established as commercial (for example, in the Termit basin), and further exploration potential (Prospective Resources).

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Proved Reserves are those quantities of petroleum which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.

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2 Proved Reserves are those quantities of petroleum which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.
Included in the country-wide estimate are ‘proved reserves’ of 45 MM Bbls for the Mangara and Badila fields (operated by Glencore, Figure 1.9) along with 100-150 MM Bbls of probable and possible reserves.³

Reserves in the Baobab, Ronier and Mimosa fields operated by CNPCI are difficult to determine with any accuracy, but current production rates of approximately double those of Glencore, suggest a volume in the order of 200-300 MM Bbls could be a reasonable estimate, with perhaps half this volume being “proved”.

1.3 Production

Production of oil in Chad began in July 2003, when the Miandoum field, part of the Doba Oil Project operated by ExxonMobil, was brought on-stream. The Komé and Bolobo fields were added in March 2004 and August 2004, respectively. Production from these three fields reached a peak level in excess of 200,000 Bopd in 2004. However, the peak was short-lived, and production has since steadily declined because of high water cut, low reservoir pressure, un consolidated sands and complex reservoir geometry.

A combination of Enhanced Oil Recovery (EOR) initiatives and the start-up of four satellite fields, namely Nya, Moundouli, Maikeri and Timbre, has helped to slow the rate of decline and, thanks to new fields coming on stream, Chad’s overall oil production stabilized at 120,000 Bopd in 2008 before rising to 145,000 Bopd in 2015. However, annual production levels continue to decline in the ExxonMobil operated fields down to 46,218 Bopd in 2017.

China National Petroleum Corporation International (CNPCI) has recently become the largest oil producer in Chad with 59,400 Bopd, which operates block H and gained its first production licence in 2007 based upon discoveries in the Borongor basin, in particular the fields Baobab (on-stream 2015), Ronier, Mimosa and new discoveries Prosopsis, Cassia North and Naramay. The initial development of 20,000 bopd went to the N’Djamena refinery, but the next phase of development has joined the Chad-Cameroon export pipeline.

Glencore (ex Caracal, ex Griffith, ex Petrochad Ltd) is the most recent (2013) and smallest producer (9,737 bopd in 2017) from blocks DOI Badila with potential to tie-in the nearby Bitanda discovery, and DOB Mangara with potential to tie-in the nearby Krim discovery. The Mangara and Badila fields are also located in the Doba Basin and are tied into the Chad-Cameroon export pipeline.
The most recent production data for Chad from the Government of Chad show 113,710 Bopd in 2017, rising to 114,244 bopd in the first nine months of 2018.

1.4 Exploration Activities and Future Potential

The first exploration license in Chad was awarded in the early 1960s to a partnership of two French companies (SNFA and PETRODAR). The block was in the Kufra basin, and was relinquished few years later. It was not until 1989 that an agreement was signed with Hunt International Petroleum to explore a large area in the Kufra basin. Only a small amount of 2D seismic was carried out before the block was relinquished in 1991.

In 1969 Conoco acquired two concessions in partnership with Chevron, the North Chari block and South Chari block, which straddled the Doba, Doseo, Salamat and Bongor basins. However, the outbreak of civil war ten years later halted exploration activities. In 1992 Conoco withdrew from Chad and sold its interests to Exxon, and a year later Chevron sold its interests to Exxon, Shell and Total.

In 1999 the consortium was forced to relinquish most of its interests and Shell and Total withdrew from Chad a year later. At this time Chevron regained a 25 percent participating interests in the Doba and South Chari licenses and Petronas acquired a 35 percent participating interest. With the discovery of the Doba Consortium fields and in the period 2000-2003 and the construction of 1,070 km, 225,000 bopd capacity Chad-Cameroon oil export pipeline, major production was initiated in 2003 reaching a peak rate of 210,000 bopd in 2004.

CNPCI entered Chad in late 2003 purchasing the large exploration Block H from the Swiss company Cliveden. Block H includes acreage in the Bongor, Doseo, Doba, Salamat and Erdis basins as well as the less well-defined Lake Chad and Madiago basins.

In 2004 the Doba Consortium signed the Chari exploration and development concession, but the acreage was relinquished in 2009. Between 2008 and 2012, the government awarded fifteen exploration licenses through direct award procedure (Table 1.1). In 2011 Chad launched its first licensing round that included 8 blocks in the Kufra basin, but no awards were made. By this time approximately 30,000 km of two-dimensional (2D) seismic data, and 600 km² of three-dimensional (3D) seismic data has been acquired and over 150 exploration wells drilled.

The Doba basin has been the focus of exploration activities for the Exxon-led consortium. Eleven of the fourteen exploration wells drilled in this area had oil shows and one major discovery (the Bolobo field) resulted in enough reserves to make export by pipeline commercially viable. The consortium was also successful in the South Chari block, with the discovery of the small Nya and Mondouli fields in 2004, followed by Maikeri and Timbre a year later.
Encana completed four exploration wells and two appraisal wells in the area covered by Block H in the Bongor Basin of southwestern Chad, which resulted in the Mimosa discovery that is estimated to hold 100 MM Bbls of oil in place. In 2006, after a dry well, Encana made the Baobab discovery. Encana’s interests were bought by CNPCI, which continued exploration activities and in 2009 discovered the Prosopis field and a year later the Cassia North field, which is reported to have tested at around 7,000 bopd.

### Table 1.1 – Exploration Blocks

<table>
<thead>
<tr>
<th>Block Name</th>
<th>Basin</th>
<th>Award Year</th>
<th>Expiry Year</th>
<th>Type</th>
<th>Size (km²)</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lac Tchad</td>
<td>Chad</td>
<td>2008</td>
<td>2019</td>
<td>PSC</td>
<td>12,017</td>
<td>Atlas Petroleum International</td>
</tr>
<tr>
<td>Chari-Doseo (Borogop)</td>
<td>CAR</td>
<td>2011</td>
<td>2019</td>
<td>PSC</td>
<td>14,317</td>
<td>Glencore</td>
</tr>
<tr>
<td>Chari-Ouest</td>
<td>CAR</td>
<td>2011</td>
<td>2019</td>
<td>PSC</td>
<td>8,026</td>
<td>Glencore</td>
</tr>
<tr>
<td>DOB</td>
<td>CAR</td>
<td>2011</td>
<td>2019</td>
<td>PSC</td>
<td>1,320</td>
<td>Glencore</td>
</tr>
<tr>
<td>DOH</td>
<td>CAR</td>
<td>2011</td>
<td>2019</td>
<td>PSC</td>
<td>826</td>
<td>Glencore</td>
</tr>
<tr>
<td>DOI</td>
<td>CAR</td>
<td>2011</td>
<td>2019</td>
<td>PSC</td>
<td>1,405</td>
<td>Glencore</td>
</tr>
<tr>
<td>BD5-2008</td>
<td>CAR</td>
<td>2012</td>
<td>2020</td>
<td>PSC</td>
<td>16,360</td>
<td>ERHC</td>
</tr>
<tr>
<td>WD2-2008</td>
<td>CAR</td>
<td>N/A</td>
<td>N/A</td>
<td>PSC</td>
<td>7,877</td>
<td>Regalis Petroleum</td>
</tr>
<tr>
<td>DOA</td>
<td>CAR</td>
<td>2012</td>
<td>2017</td>
<td>PSC</td>
<td>1,483</td>
<td>Regalis Petroleum (72.5 percent), Groupe TCA Internationale (27.5 percent)</td>
</tr>
<tr>
<td>DOC</td>
<td>CAR</td>
<td>2012</td>
<td>2020</td>
<td>PSC</td>
<td>1,482</td>
<td>United Hydrocarbon International*</td>
</tr>
<tr>
<td>DOD</td>
<td>CAR</td>
<td>2012</td>
<td>2020</td>
<td>PSC</td>
<td>950</td>
<td>United Hydrocarbon International*</td>
</tr>
<tr>
<td>Erdix IV</td>
<td>Kufrah</td>
<td>2012</td>
<td>2019</td>
<td>PSC</td>
<td>15,667</td>
<td>SAS Petroleum</td>
</tr>
<tr>
<td>Lake Chad</td>
<td>Chad</td>
<td>2012</td>
<td>2020</td>
<td>PSC</td>
<td>7,176</td>
<td>United Hydrocarbon International</td>
</tr>
<tr>
<td>Largeau III</td>
<td>Chad</td>
<td>2012</td>
<td>2020</td>
<td>PSC</td>
<td>11,810</td>
<td>Regalis Petroleum (72.5 percent), Groupe TCA Internationale (27.5 percent)*</td>
</tr>
<tr>
<td>Largeau VI</td>
<td>Chad</td>
<td>2012</td>
<td>2017</td>
<td>PSC</td>
<td>17,864</td>
<td>Glencore (85 percent), SHT (25 percent)</td>
</tr>
<tr>
<td>WD-2-2008</td>
<td>CAR</td>
<td>2012</td>
<td>2017</td>
<td>PSC</td>
<td>7,873</td>
<td>Regalis Petroleum (72.5 percent), Groupe TCA Internationale (27.5 percent)</td>
</tr>
</tbody>
</table>

Source: Wood Mackenzie

CNPCI appears to have established productive reservoirs throughout the Cretaceous section of the Bongor basin rift fill and has deepened wells in the Ronier field to assess the reservoir potential of the basement. High oil flows have been tested from five ‘buried hills’, indicating that the Precambrian basement represents a potentially viable reservoir for hydrocarbon accumulation, although according to a study carried out by Schlumberger, while the area has a lot of potential, the geology is very complex.\(^4\) Core analyses indicate that the basement is composed of intrusive granites and other magmatic rocks that have been fractured and weathered to provide the necessary “reservoir” for oil.\(^5\)

CNPCI, and its current partners SHT and PetroChina estimate that the area may hold 800 MM Bbls of oil in place within the buried hills or fractured basement. Block H includes a 311-

\(^4\) [https://www.slb.com/~/media/Files/software/case_studies/merak_cnpc.pdf](https://www.slb.com/~/media/Files/software/case_studies/merak_cnpc.pdf)

kilometer pipeline and the 20,000 bopd N’Djamena refinery, which was commissioned in 2011 and co-owned by CNPCI (60 percent) and the Chadian Ministry of Petroleum (40 percent).

In November of 2017 Delonex Energy contracted BGP to acquire 400km of 2D seismic and 1,200km² of 3D over Block H, which it acquired from United Hydrocarbon International, along with the DOC and DOD blocks in the Doba Basin and the Largeau III block in the Chad basin.

1.5 Development Activities

Several discoveries in Chad remain contingent resources. These are volumes that, while discovered, have not yet been shown to be commercial possibly reflecting, for example, insufficient expected production volumes, a lack of infrastructure and/or other factors such as the recent period of low oil prices. These discoveries include Belanga, Lara, Kibea, Maku and Tega in the southern Doba and Doseo basins that are estimated to contain around 100 MM Bbls of oil in place. The Sedigui discovery in the Termit basin is thought to contain about 25 MM Bbls of oil and 200 bcf of gas in place. In total, an undeveloped, in-place volume of around 475 MM Bbls of oil equivalent comprising 420 MM Bbls of oil and 320 Bcf gas has been discovered, mainly located in Southern Chad.

The most aggressive operator in Chad is CNPCI and they appear most likely to bring on-stream their undeveloped discoveries in the Bongor basin, taking advantage of their commitment to the pipeline infrastructure and the construction of the local N’Djamena refinery.

Glencore has two undeveloped discoveries in Krim and Bitanda that are likely tie-backs to the producing fields of Mangara and Badila, respectively, provided commerciality can be achieved.

1.6 Profile of Key Players

Companies with acreage in Chad includes from major multi-nationals, that hold the producing areas, and extremely small independent companies who hold petroleum rights under more recent PSCs.

The majors are integrated, meaning they deal in upstream, midstream and downstream. This means that they explore for and produce oil and gas (upstream), transport it to a refinery (midstream), refine it into fuels and petrochemicals (downstream), and sell gasoline at their own gas stations. ExxonMobil, Petronas, and CNPC are part of this group. While large companies have the financial capacity to undertake all and any operations required to identify

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6 Contingent resources are quantities of petroleum estimate, as of a given date, to be potentially recoverable from known accumulations, which are not currently considered to be commercially owing to contingencies (https://www.spe.org/industry/reserves.php).
and produce hydrocarbons, they are usually complex organizations that tend to be slower and more rigid than smaller companies. Big companies are also more likely to manage their projects following a global portfolio logic, which at times might result in prioritizing projects outside of Chad.

On the other hand, independents (smaller players) tend to be dynamic and less burdened by bureaucracy. These companies are usually upstream focused. Some companies specialize on exploration, and once a promising target is identified, they look to attract larger players by partial or total farmout (sale of participating interests). Independents are keenly focused on their acreage because it is all or a substantial part of what their portfolio. But they usually lack the financial capacity to execute all or all phases of their projects.

From the point of view of the host government, attracting different types of players can be beneficial, although a good sector promotion strategy generally requires a broader range of companies than are currently seen in Chad, which is missing the mid-sized independents.

The leading players in Chad’s oil production and development comprise international majors like ExxonMobil (40 percent and Operator, Doba concession), the international arm of National Oil Companies (Petronas Carigali, 35 percent in Doba concession, and CNPCI Operator and 75-90 percent in Block H areas), the National Oil Company of Chad (SHT, 25 percent in Doba concession, 10-25 percent in Block H areas and 15 percent in DOB and DOI), or the international commodity trader, Glencore (85 percent and Operator, DOB and DOI). As noted above, these major international players share a common feature: their access to capital and ability to fund both exploration and more costly development activities in a land-locked country with little infrastructure (with the exception of the Chad-Cameroon export pipeline).

CNPCI has invested heavily, initially at 100 percent, in order to appraise and develop its fields in the Bongor basin, thereafter constructing a pipeline and local refinery. In addition, CNPCI has deepened exploration and development wells to investigate the ‘basement play’ underlying its conventional fields, whilst acquiring and reprocessing 3D seismic data for both field development and ongoing exploration. These exploration and production initiatives mirror those deployed by CNPCI in its acreage holdings in the WCAR basins of neighboring Niger.

The perception of upside opportunity is important, particularly for large companies. Unless a large company perceives the potential for material upside in the development of a new play (such as the fractured basement, less tangible stratigraphic traps, or the longer term, unconventional shale potential), it is unlikely it will continue to invest in exploration. This might be the case for Chad’s oldest producers, ExxonMobil and Petronas Carigali.

Understanding the drivers of each player (Table 1.2) is critical for the design of sector development and negotiation strategies by the Government. The ability to attract new players is also critical to sustainable sector development since new players are likely to bring fresh ideas and capital to pursue opportunities.
### Table 1.2 Companies’ Strategic Drivers for Petroleum Sector Development

<table>
<thead>
<tr>
<th>Strategic Drivers</th>
<th>Exploration and Production “Value Curve”</th>
<th>Considerations for Chad</th>
</tr>
</thead>
<tbody>
<tr>
<td>First mover; high risk / high reward, rapid value accretion</td>
<td>Basin and play opening; acreage award, seismic acquisition, drilling and discovery</td>
<td>Land-locked frontier; with limited local market</td>
</tr>
<tr>
<td>Promoter, elephant hunter, ‘geographer’</td>
<td>Acreage award, minimal investment and farm-out to cover drilling costs</td>
<td>Tendency to hold on to large acreage with little investing. Promoters should be encouraged to become proactive or release their positions</td>
</tr>
<tr>
<td>Market maker; need to book reserves and resources</td>
<td>Commercialisation of discovery, field development plan, sales contracts; risk that discovery does not live up to expectations</td>
<td>Small players would tend to delay field development until they secure financing through farmouts or project financing</td>
</tr>
<tr>
<td>Technologist, but could still include promoters waiting for maximum valuation ahead of initial production</td>
<td>At start of production risks are better defined, but significant capital is exposed. Maximum valuation after production starts</td>
<td>“Reasonable” tariffs for access to existing export infrastructure would be an important consideration</td>
</tr>
<tr>
<td>Late field life specialist; could include major service companies and/or teams of ex-service company personnel</td>
<td>Mature field investment driven by oil price and cost control; investment to defer abandonment</td>
<td>As Chad’s E&amp;P sector matures, late field life specialists should be encouraged. Some specialist service companies may also be interested</td>
</tr>
</tbody>
</table>

While ExxonMobil and Petronas are substantially integrated energy companies, Glencore Plc is an integrated producer and marketer of commodities. Its business spans a variety of sectors, including in Chad where its activities include financial services and trading alongside exploration and production.\(^7\) As such, Glencore’s drivers and investment strategy differ profoundly from those of ExxonMobil and Petronas. According to a Financial Times’ article from 2013 Glencore’s strength lies on its ability to navigate complex political, logistical and administrative challenges in developing markets such as Chad.\(^8\)

Among the smaller petroleum companies that are present in Chad, the absence of companies with a history of finding and developing resources elsewhere in Africa is noticeable.\(^9\) This is in

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\(^7\) Glencore plc’s portfolio includes metals and minerals, energy products, and agricultural products. Its diversified operations consist of over 150 mining and metallurgical, oil production and agricultural assets (https://markets.ft.com/data/equities/tearsheet/profile?s=GLEN:LSE).

\(^8\) “… Glencore believes, its expertise lies in resolving ‘above the ground’ problems – such as dealing with the political and logistical challenges posed by regions such as west Africa … the company is looking for opportunities like Chad … a textbook example of … a capital light project, with significant upside, in a country that most other companies would avoid.” https://www.ft.com/content/08236de4-421f-11e3-9d3c-001446eb0d0

\(^9\) In the absence of a cadaster, a list of companies holding acreage in Chad can be found on EITI reports http://itie-tchad.org/wp-content/uploads/2018/08/Rapport-de-conciliation-ITIE-Tchad-2016-1.pdf.
part due to the 2008-2010 financial crisis and the 2015-2017 trough in oil prices, which lead many companies to focus on few strategic areas and on achieving target return on investment. For some of the U.S. independents, the “shale revolution” and the opportunity to invest in the low-risk domestic market has been a big draw. However, given the country’s geological potential it is surprising that a broader spread of companies does not appear to be interested in investing in Chad. This is an aspect that needs both further understanding and further marketing to reverse.

A non-exhaustive list of public and private companies with a regional presence, including regionally-headquartered companies, that could be contacted to understand further their potential future interest or, alternatively, their reluctance to invest, include Africa Energy, Anadarko, Apache, Cairn, CEPSA, CNRL, Devon Energy, Discover, Energy Africa, Hess, Hunt, Lekoil, Lukoil, Marathon, Maurel et Prom, MOL, Noble Energy, Ophir, Petrom (OMV), Pioneer, Repsol, San Leon, Seplat, SOCO and Tullow.

1.7 Considerations for Fostering Sector Development

Comparing Chad’s relatively lightly explored land locked ‘intra-cratonic’ basins with analogous basins that have a more mature production history and/or a more active exploration focus helps to identify opportunities and strategies to foster the exploration and production sector in Chad.

A local analogue is the Agadem Rift in Niger (part of the WCAR system that extends into Chad/ Termit basin, where considerable recent success has been achieved by CNPCI with a reserves base of around 1 Bn Bbls plus current production of around 20,000 bopd. In addition, British independent Savannah Petroleum has made 5 discoveries in 5 exploration wells drilled in the Agadem Rift during the period 2017-18. The acquisition of 3D seismic data along with detailed, integrated exploration techniques appear to have been a critical element of this success.

An international, analogous, intra-cratonic basin (i.e. an extensional basin that does not include oceanic crust) with a similar geological history, sedimentary fill and petroleum system is the Reconcavo Basin of NE Brazil. The area of the Reconcavo Basin is around 10,000 km² with a maximum sedimentary thickness is 6,500. This is a fraction of the combined Doba-Doseo basinal area (around 260,000 km²) with a similar maximum sedimentary thickness of around 7,000 m.

With approximately 280 wildcat wells drilled to date has led to the discovery of approximately 1 Bbols of producible oil and 1 Tcf of producible gas. Lacustrine turbidite reservoirs located in stratigraphic traps, that were discovered by chance, contribute approximately 25 percent and 65 percent of discovered oil and gas, respectively. This type of play could be expected to be developed within the CAR and WCAR basins of Chad but would need 3D seismic acquisition to identify. As far as is known this has not yet attracted any exploration effort.

The discovery of fractured basement reservoirs in Yemen encouraged a second wave of exploration in that country’s intra-cratonic basins where the larger structural traps of the syn-rift had largely been found. The initial exploration and test data from CNPCI’s drilling of the basement in the Bongor basin is encouraging and may open a new play that could impact the
established ‘creaming curve’ of decreasing discovery size against the number of exploration wells drilled. For example, Brazil’s largest onshore field Carmopolis (approximately 1.8 Bn Bbls of oil equivalent in-place), located in the intra-cratonic Sergipe-Alagoas Basin, is expected to yield more than 500 MM Bbls, of which 10-20 percent will be produced from fractured basement.

These examples suggest that there should be no fundamental technical reason holding back the development of Chad’s petroleum sector. As such, a combination of market research and improved marketing of opportunities, alongside the design of an appropriate licensing strategy, could go a long way towards unlocking Chad’s potential.

1.8 Feedback from Stakeholders’ Consultation

The Stakeholders’ consultation revealed a misalignment between public and private sector actors about the sequencing and urgency of reforms (Table 1.3). In particular:

a. The private sector expressed concerns over existing capacity constraints of the Administration, which ultimately result in slower pace of exploration and development investment and higher cost of doing business. To attract new investors the government would first need to improve investment environment and institutional clarity and efficiency of public administration, which are likely the main hurdles for actors that are not used to operating in Chad.

b. The MPE expressed concern relates to the lack of funding that is perceived as the principal factor undermining its ability to carry out its mandate as promoter of sector investment.

Based on the foregoing, the clear prioritization of policies and reforms should be the focus of the MPE going forward. Such strategic vision and prioritization should be reflected in a sector policy, and related implementation measures. It is also imperative that such vision be consulted with investors with a view to develop a partnership approach and a stable investment environment.
Table 1.3 – Summary of Stakeholders’ Feedback

<table>
<thead>
<tr>
<th>Key takeaways</th>
<th>Proven petroleum system and high exploration potential</th>
<th>Targeted licensing strategies, including diversifying investors’ profiles. Insistence on minimum work programs and mandatory relinquishment</th>
<th>Improved marketing of opportunities and updated knowledge or resources and reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MPE</strong></td>
<td>Substantially agreed</td>
<td>Currently block size varies based on availability of: area data and area infrastructure. Blocks are a few thousands sqkm in the South to up to 30,000 sqkm in the North. Negotiable award parameters (bonus and minimum work programs) are consequently defined. For example, areas in the Northern part of the territory for which less data is available are offered at lower bonuses and minimum work programs compared to areas in the South.</td>
<td>Lack of funding has been the major impediment to the establishment of the petroleum sector databank, and the realization of regional studies to use as basis for the delineation of acreage and investment promotion. This is, however, a policy priority.</td>
</tr>
<tr>
<td><strong>SHT</strong></td>
<td>No comment was provided.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chad</strong></td>
<td>Substantially agreed</td>
<td>MPE should focus on ensuring the proper functioning of the current licensed operations (particularly, transparency, clear procedures, stable agreements, and responsive institutions) before engaging in additional activities as this would further constrain administration capacity and delay current exploration and development activities.</td>
<td></td>
</tr>
</tbody>
</table>
2. The Petroleum Sector Legal and Regulatory Framework

Considering the high stakes and risks involved in the oil and gas exploration and exploitation, a coherent and transparent legal, regulatory and contractual framework and an efficient fiscal system are crucial to functioning resource management and foreign investments attractiveness.

This chapter reviews the legal and regulatory framework for the oil and gas sector, focusing on upstream activities. It summarizes the key provisions of the Petroleum Law, concession agreements and Petroleum Sharing Contracts (PSCs), as well as the key elements of the fiscal regime applicable to oil and gas activities, and identifies discrepancies with international practice, specific implementation issues and areas for improvement. The analysis does not entail the review of individual contracts/concessions, nor expresses an opinion on individual contracts/concessions. Best practices from international experience are also provided.

Key take-aways

The three most critical take-aways that arise from the legal and regulatory framework for the petroleum sector discussed in this Chapter are listed below.

1. **The hierarchy of laws and matters to be addressed in the Petroleum law, regulations and contracts should be clearly defined.** The comprehensiveness and the organic coordination between the regulations, the Petroleum Law and petroleum contracts is a first critical step towards ensuring the certainty of rights and obligations of investors and government. At present, the model PSC regulates aspects that in the international practice are normally addressed in the law or at a regulatory level, and regulations lack comprehensiveness and coherence with the Petroleum Law and model PSC. In addition, the potential for application to Chad of a modular legal framework (as described in section 2.2) should be considered.

2. **A transparent and accessible legal framework is a primary requisite for the orderly development of the petroleum sector, and to attract new investors and investment.** To this end, the following improvements are suggested:

   a. Clear criteria and objective criteria for the choice of licensing method and the award of licenses and contracts should be stated as principles of law. At present, the Petroleum Law grants the Minister in charge of the petroleum sector absolute discretion to award petroleum rights following direct negotiation or public tenders. Principles that should be applied in such determination should be stated in the law, which should also contain the principles that guide an award decision (for example, conduct evaluations fairly, impartially and without discrimination, and select that bid which provides the...
greatest benefits to Chad based on clearly stated criteria. Clear and objective award criteria framing the discretionary power in awarding licenses, as well as transparency requirements at each stage of the licensing process, are considered good practice as they contribute to enhancing accountability and increasing competition among investors.

b. To enhance transparency and the efficient management of petroleum rights, the Petroleum Law should establish a petroleum register and national data base. The key structure and principles related to its operations should be specified in the law. For example, the register should include a map of the territory showing all open areas and areas under contract, and a geo-referenced data base, that will collect all geological, geophysical, petrophysical and other data obtained from petroleum operations. The ownership of these data and information should be clearly stated in the law and should rest with the Republic of Chad, subject to customary confidentiality obligations designed to protect the interests of both investors and the resource owner.

c. The transparency provisions of the Petroleum Law and PSCs should be brought in line with more recent disclosure commitments. These principles are set out in Law no. 018/PR/2016 that governs the transparency and good governance in the public sector and are further detailed in communiqué no. 0482/PR/PM/MPE/HCN/CSTP/18 of April 25, 2018. Such communiqué announced the government’s intention to publish all petroleum sector contracts and specified the criteria of such publication in line with the Government’s pledge to abide by the transparency standards of the Extractive Industry Transparency Initiative (EITI).

3. The variability of the fiscal terms and special arrangements is cause for concern as it might lead to increased cost and decreased administrative efficiency. Chad’s fiscal regime is straightforward in its basic elements and appears generally competitive. Although both concessionary and contractual regimes have progressivity elements (the Government’s benefits increase with increasing profitability), the terms appear to vary across contracts. Overall, both concessions and PSCs are equivalent in terms of efficiency, with a slight regressivity for concessions. Hence, efficiency gains are more likely to be obtained through the standardization of terms across contracts and effective fiscal administration.

2.1 The Legal and Contractual Framework for Petroleum Operations

2.1.1 The Hierarchy of Laws and its Importance

The legal framework governing the petroleum sector comprises the constitution, legislation, regulations, and contracts. How these documents relate to one another, which has more force than the other, is often referred to as a legal hierarchy. Moving from the Constitution to the contracts, each instrument becomes increasingly detailed or specific. All instruments should be
coherent. For example, a petroleum contract may not conflict with rules established in regulation, legislation or the constitution. In case of conflict the law and regulations (in this order) shall prevail.

The legal basis for hydrocarbon exploration, development and production is normally set in a country’s constitution. Normally, the hydrocarbon law, formulated at the parliamentary level, sets out the principles of law, while those provisions that do not affect principles of law, or that may need periodic adjustments (i.e. technical requirements, administrative procedures, administrative fees, etc.), are set in regulations. The consistency of the legal framework with the constitutional foundation is an important factor affecting the security and stability of the legal framework. Certainty of rights is particularly important for private investors due to the capital intensive and long-term nature of petroleum projects.

2.1.2 The Constitutional Basis of Sector Laws

Many constitutions include information relevant to natural resources, such as the structure of political institutions, checks and balances within the political system, rights to land ownership, environmental protection, civil legal process, and labor standards. Fundamental values concerning natural resource governance, including national ownership of subsoil resources and a commitment by the state to manage these resources in the public interest, are included in some resource-rich countries’ constitutions. A few countries have included specific provisions on key policy issues, including formulas for resource revenue sharing (e.g., Nigeria, South Sudan); requirements that parliament approve contracts (Kuwait, Ghana, Tunisia) or that all contracts be made public (Mexico, Niger).

The Constitution of the Republic of Chad promulgated in 2018 contains no principle of state ownership of the hydrocarbon resources. This principle was explicitly recognized in the 2005 Constitution, now repealed, which stated in article 57: “The State exercises its entire and permanent sovereignty over all the national natural riches and resources for the well-being of all of the national community. However, it may concede the exploration and the exploitation of these natural resources to private initiative”. The state ownership of the hydrocarbon resources is now discussed only in the Chadian Petroleum Law. The reason for such change may suggest a change in policy and could be specifically addressed in the sector policy. Nonetheless, the current constitution preserves the principle of compensation of petroleum producing regions through the allocation of a percentage of revenues derived from the exploitation of petroleum in their territory to be regulated by law.

In line with the Constitutions of many petroleum producing countries, Chad’s constitution retains the principle of the protection of the environment and the conservation of natural resources, which is further emphasized in the Petroleum Law. Also, the principle of conservation of environment and safeguard and valorization of natural resources is primarily stated in the country’s environmental legislation. However, petroleum contracts appear to regulate the environmental matter of their own, leaving potential grey areas regarding the compatibility of such contractual provisions with environmental regulations, particularly since contracts refer to industry practice as the guiding principle for environmental management and protection.
2.1.3 The Petroleum Law

A clear, simple and non-discretionary legal and regulatory framework is crucial to attract new investors and investment. The key principles that underpin the regulation of the petroleum sector are usually set forth in legislation, and include the following:

1. Clear definition of the role of national (and state) government;
2. Certainty of title;
3. Freedom to operate on a commercial basis (including various forms of private access to hydrocarbon resources);
4. Comprehensive environmental protection requirements; and
5. Competitive and stable fiscal terms.

For most countries, these principles are contained in a sectoral law – the petroleum law, which covers the key elements of the institutional framework, the licensing procedures, access to acreage, fiscal and non-fiscal terms, disclosures. Often a sectoral law would also include or at least incorporate by reference the key principles for the protection and conservation of the environment, labor, including the health and safety of workers, the promotion of local employment and industry, and public accountability. However, the general trend is towards the establishment of modular legal frameworks where all matters relating to hydrocarbon rights and their use are governed by the hydrocarbon law/regulations, all matters relating to taxation are defined in the tax code, all issues relating to environment protection are defined in environmental laws, etc.

In fact, a modular approach allows to deal with complexity by decomposing a complex system into pieces (modules). Moreover, modularity allows a system to manage uncertainty; because each module can function and develop in relative isolation, these processes can occur without the need to resolve uncertainty elsewhere in the system, so specific sectors and the sector-specific legislation can evolve as needed without causing disruption, thus increasing transparency and accountability, reducing administration costs and facilitating compliance. Chad seems to use a combination of approaches, at times incorporating other laws by reference (such as the land use legislation), and at times regulating matters that are normally covered by existing laws (such as the land use regime itself).

Regulations sit below legislation in hierarchy. In most countries, regulations are established by the executive branch of the government without need for adoption by the legislative branch. Regulations are used to detail the manner of implementation of a principle of law, for example setting deadlines for applications for permits, engineering standards, or detailing the procedure for the approval of a field development plan. Since they are easier to amend, regulations normally refer to matters that may change overtime, while laws tend to contain principles that remain valid through the passage of time. Like legislation, regulations are of general applicability, that is they are not designed to apply to specific individuals or companies.
Finally, petroleum contracts and licenses are placed at the lowest level of the law hierarchy, and further detail provisions of law and regulations. These instruments are specific to a project, and bind only the parties related to that project.

The main legislation governing petroleum activities in Chad is Law no. 06/PR/2007 of 20 April 2007 ("Petroleum Law") as amended by Ordinance no. 01/PR/2010 dated 30 September 2010 and its implementation decree no. 796/PR/PM/MPE/2010 ("Implementation Decree").

Annex 2.A compares the main provisions of Chad’s Petroleum Law and model PSC with international good practice. Since concession agreements are no longer granted, this report focuses on PSCs. The main observations include:

a. **Award of petroleum exploration and production rights.** In line with international practice, Chad’s licensing and award procedures could be made more transparent through the definition of clear award criteria, the publication of negotiation results, and the use of external oversight bodies. Chapter 3, Section 3.1.1, discusses Chad’s licensing systems and the discretionary power afforded to the Minister of Petroleum and Energy by the Petroleum Law, and offers suggestions for improvement.

b. **Utilization of natural gas.** The flaring of natural gas is allowed under the Petroleum Law. In addition to its negative environmental impact, flaring can be an ineffective energy resource use, whereas for a good gas utilization a clear Government policy and transparent legal and regulatory framework are needed. Venting is not expressly prohibited but, being the options for associated gas utilization either “operational commercial use, reinjection” or “flaring”, venting might be de facto prohibited. However, the venting prohibition, except in an emergency, should be expressly addressed in the Petroleum Law.

c. **Health, safety and environment ("HSE").** A general provision in the Petroleum Law refers to the safety of “personnel and facilities” as a matter on which the regulation in force must be abided by the contractors. The Petroleum Law also requires the contractor to comply with prudential principles and criteria of good petroleum industry practice in the absence of applicable specific regulations thus leaving safety, health and environmental protection to the Operator’s own rules. The definition of clear principles on environmental obligations and liabilities should be primarily established in the law and regulations, rather than in the contract. The comprehensiveness of the environmental legislative framework for the oil and gas sector and the clear definition of

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10 Ordinance no. 01/PR/2010 dated 30 September 2010 is not publicly available and was not examined in this report. However, a recent study by the Institut Francais du Pétrole in the context of a petroleum sector capacity building grant financed by the World Bank (December 2017), found that the regulations lack legal accuracy, and have an extensive focus on matters that should be regulated in specific instruments, such as land occupation and expropriation. Furthermore, this ordinance appears to establish a superseding effect of the new law over the previous through a series of unclear statements, the precise scope of which is difficult to assess.
environmental liabilities in the proper legal framework should be given further consideration.

d. Relinquishment obligations. Exploration permits are granted on an exclusive basis for an initial 5-year period that may be extended once for up to a further 3 years. Election to renew is accompanied by a requirement to relinquish at least 50 percent of the surface area covered by the permit. Hence, in the event of renewal, the contractor is able to “hang on” to at least 50 percent of the original exploration permit area for up to 8 years. This may result in having large areas under contract for which the license holder has little incentive to accelerate exploration, de facto locking out potential investors.

e. Land access and use rights. The Petroleum Law sets out a general land use and right of access principle for the contractor. The Implementation Decree regulates extensively and repetitively – although with lack of clarity – the land use for petroleum activities and refers to compensation as regulated by common law principles. Contractor’s land use rights are restated also in the model petroleum sector contract (PSC). To ensure that land access and use rights are comprehensively and coherently addressed in the various pieces of legislation, an in-depth review and comparison with good practice is recommended.

f. Transfer of rights and obligations. Transfers of rights and obligations and related authorizations and permits arising from petroleum contracts are subject to notification to and prior approval of the MPE. A third-party transferee assumes all the contractual obligations, subject to the approval by the MPE of such transfer. Approval and rejection, to be duly motivated and for material reasons, are set out in the model PSC. Approval is deemed to be granted where no response to the request for approval is received within 90 days of its filing. It would be advisable to clarify to what extent this practice, which is common under common law, is also accepted under Chadian administrative law.

g. Liabilities. The contractor shall hold the Government harmless from damage, loss or liability in connection with the activity of its sub-contractors to the extent the contractor is at fault. It is normal practice for the contractor to indemnify the State, and its representatives and agents against all and any claims made by third parties in respect of any injury, damage or loss caused by an act or omission of the contractor, its sub-contractors or its agents, employees or representatives in the conduct of petroleum operations. The extent of the contractor’s liability for the activity of its sub-contractors is a point that deserves further attention.

h. Discoveries that are deemed noncommercial by the contractor. The right of the Government to develop discoveries deemed noncommercial by the licensee/contractor is not addressed. This might be an important policy area, which might help to accelerate the development of marginal fields where conditions permit.
i. **Conflict of interests and ethics principles.** The legal and regulatory framework, and the model PSC do not address conflict of interest and ethics. In line with good international practice, in addition to the duties and obligations set forth in the Petroleum Law and model PSC, the principles of transparency, ethics and fairness should apply in respect of all activities, decisions, actions, rules, directions, and orders made with respect to the subject matter of the Petroleum Law and the conduct of petroleum operations. Specific conflict of interest provisions or incorporation by reference of the relevant ethics law should feature in the Petroleum Law.

2.1.4 **The Transitional Provisions of the Petroleum Law**

The Petroleum Law introduces the model Production Sharing Contract (PSC) and in art.105 sets out that all divergent prior legal provisions and notably the Ordinance of 1962 are abrogated. The PSC replaces the concession agreement (*convention* in French), established under the previous Ordinance no. 007/PC/TP/MH dated 3 February 1962. Nonetheless, the Ordinance of 1962 is still in force and applies to those concessions that pre-date the entry into force of the Petroleum Law.

To date there are 17 PSCs under the Petroleum Law and three concessions under the Ordinance of 1962, notably the concession of 1988 with the consortium Esso relating to the Doba basin (currently representing nearly half of the Chadian hydrocarbons output), the Esso’s consortium 2004 Concession related to the Maikeri and Timbre fields, and the 1999 with the consortium CNPC relating to Mimosa and Ronier fields. All exploration and production rights issued since 2007 are of the PSC type.

The Petroleum Law, under its transitional provisions, grants holders of pre-existing petroleum agreements the possibility to opt into the new contract type within one year from the publication of the Petroleum Law in the National Gazette. Right holders who did not opt in, must comply with the provisions of Decree No. 795/PR/PM/2006, establishing the National Commission for the Negotiation of Petroleum Conventions (the National Commission)\(^{11}\). If the concessionaire does not opt in or comply with the mentioned decree within one year, the Petroleum Law applies, without exception to all pre-existing concession agreements. Since the original three concessions are still in place, a question arises on the way of application of the transitional provisions vis-à-vis the pre-existing concession agreements’ stabilization provisions, particularly with regard to the economic equilibrium principle that applies in case of changes in law that have detrimental effects on the concessionnaire’s cost of compliance.\(^{12}\)

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\(^{11}\) Decree No. 795/PR/PM/2006, establishing the National Commission, is not publicly available. Publicly available information suggests that complying with the mentioned decree could be like an agreement to agree.

\(^{12}\) Stabilization clauses into three broad categories, based on how they aim to protect the investor:

- Freezing clauses are designed to make new laws inapplicable to the investment. They are so named because they aim to freeze the law of the host state with respect to the investment project.
- Economic equilibrium clauses imply that, although new laws will apply to the investment, the investor will be compensated for the cost of complying with them. Compensation can take many
side consideration relates to the **coexistence of different types of contract, which is likely to increase administrative complexity, especially for a country with limited resources.**

### 2.1.5 Concessionary versus Contractual Systems

In the oil and gas practice, exploration, development and production rights in a particular area or block are granted by host governments to investors by means of concessions, production sharing contracts, or service and risk service contracts.

In both concessionary and contractual systems, the investor assumes all risks and costs associated with the exploration, development and production of hydrocarbons, and receives compensation adequate to the risk. In general terms, the higher the risk of investment activities in a country, the higher the portion of the rent received by the investor.

The fundamental difference between concessionary and contractual systems relates to the ownership of the natural resources:

- **Under a concessionary system,** the title to hydrocarbons passes to the investor at the wellhead. The state receives royalties and taxes in compensation for the use of the resource by the investor. Title to and ownership of equipment and installation permanently affixed to the ground and/or destined for exploration, and production of hydrocarbons generally pass to the state upon the expiry, or termination, of the concession (whichever is earlier). The investor is typically responsible for abandonment.

- **Under a contractual system the investor acquires the ownership of its share of production only at the delivery point.** Title to and ownership of equipment and installation permanently affixed to the ground and/or destined for exploration, and production of hydrocarbons generally pass to the state immediately. Furthermore, unless specific provisions have been included in the contract (or in the relevant legislation) the government (or the national oil company) is typically legally responsible for abandonment.

In both types of agreements, the issue of ownership is particularly significant as it affects the rights and obligations of the parties and their ability to dispose of these rights. Given the risky nature of the industry, the investor’s ability to share the risk by transferring all or part of its rights to other investors is an important element of the overall attractiveness of a country’s regime.

 trưng bày các hình thức, such as adjusted tariffs, extension of the concession, tax reductions, monetary compensation, or other. These clauses do not aim to freeze the law. Rather they aim to maintain the economic equilibrium of the investment project. The text of some economic equilibrium clauses does not impose a direct requirement that the host state compensate the investor but requires the parties to negotiate in good faith toward restoring the economic equilibrium of the original agreement.

- Hybrid clauses (so named because they share some aspects of each of the other categories) require the state to restore the investor to the same position it had prior to changes in law, and the contract states explicitly that exemptions in law are one way of doing this.

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The key features of concessionary and PSC systems and their application in Chad are summarized in Table 2.1.

**Table 2.1 – Concessionary and Contractual systems: Practice in Chad**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Concessionary System</th>
<th>PSC System</th>
<th>Chad’s practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of nation’s resources</td>
<td>The nation and/or the state in federal systems</td>
<td>The nation and/or the state in federal systems</td>
<td>The State</td>
</tr>
<tr>
<td>Title transfer point</td>
<td>At wellhead</td>
<td>At export point</td>
<td>As per standard practice in the respective systems</td>
</tr>
<tr>
<td>Company’s entitlement</td>
<td>Gross production less royalties</td>
<td>Cost oil/gas plus profit oil/gas</td>
<td>As per standard practice in the respective systems</td>
</tr>
<tr>
<td>Ownership of Facilities</td>
<td>Investor</td>
<td>State</td>
<td>State once amortized</td>
</tr>
<tr>
<td>Management and Control</td>
<td>Typically less host government control</td>
<td>Most direct host government control and participation</td>
<td>Similar level of control and participation in both systems</td>
</tr>
<tr>
<td>Government Participation</td>
<td>Less likely</td>
<td>More likely</td>
<td>The national oil company participates in both systems</td>
</tr>
<tr>
<td>Basic Components</td>
<td>Three components: royalty; deductions (such as operating costs and capital depreciation), and tax</td>
<td>Four components: royalty, cost recovery, profit oil, and tax</td>
<td>In addition, for PSCs the contractor’s corporate income tax is deemed paid out of Government Tax Oil</td>
</tr>
<tr>
<td>Royalties</td>
<td>Unit or percentage of production or sale. Fixed or on a sliding scale; paid in cash or in kind; Negotiable or biddable. Tax-deductible</td>
<td>Royalty is similar to concessionary systems. Normally not cost recoverable</td>
<td>Variable. CNPCI concession sales to domestic refinery are zero rated, while exports attract a 13.5 percent rate. ExxonMobil 1988 Concession is subject to a 12.5 percent rate, while the 2004 Concession, and all PSCS, attract a 14.25 percent rate.</td>
</tr>
<tr>
<td>Fiscal Costs</td>
<td>Described in legislation/agreement. Royalties and opex normally expended in the year in which they occur. Depreciation calculated according to applicable legislation. Some countries allow the deduction of investment credits, interests, and bonuses</td>
<td>Defined in the legislation/PSC. Production remaining after payment of royalties and cost recovery in accordance, is split between host government and contractor. Split is fixed/sliding scale. Parameters stipulated or negotiated. Fiscal costs often differ from cost recovery</td>
<td>In PSCs, corporate tax is deemed paid out of Government’s Tax Oil, so fiscal costs in this respect are moot. In concession agreements, royalty and opex are expended in year incurred, along with exploration drilling costs. In the ExxonMobil 1988 Concession, all drilling costs can also be expended 100 percent in the first year, whereas in the 2004 Concession they are depreciated over 5 years. Bonuses are not tax deductible. In PSCS costs are recovered out of 70 percent of the revenue after deduction of Royalty, with costs unrecovered in one period being carried forward to the next.</td>
</tr>
<tr>
<td>Taxable Income</td>
<td>Income taxed at the country’s basic corporate tax rate/special resource taxes: flat rate or sliding scale.</td>
<td>Income taxed at the country’s basic corporate tax rate/special resource tax/special resource.</td>
<td>Income tax is only charged on concessions (as noted above, it is deemed paid out of Government Tax Oil in PSCs).</td>
</tr>
</tbody>
</table>
Investment incentive may apply. Tax loss carry forward: unlimited/limited. Tax may be paid by host government/national oil company on behalf of investor.

taxes - flat rate or sliding scale. Investment incentive may apply. Cost recovery limits often apply. Tax loss carry forward: unlimited/limited. Tax may be paid by host government/national oil company on behalf of investor.

The tax rate varies by concession. In ExxonMobil’s 1988 Concession the base rate is 50 percent. However, for the 1988 Concession fields the rate ranges from 60 to 65 percent (at current oil prices) once the R Factor, exceeds 1.75, and on the 2004 Concession fields it ranges from 50 to 65 percent reaching the top rate once the R Factor exceeds 1.625. Tax losses are carried forward.

While no Income Tax is payable under PSCs, the government receives Profit Oil (also known as Tax Oil) instead, ranging from 40 to 60 percent, with the top rate based on the R Factor exceeding 3.


2.1.6 The Petroleum Regulations

Whereas Petroleum law is broadly in line with good legal practice, a point for clarification is whether the Ordinance no. 01/PR/2010 of January 7, 2010 on the approval of the model PSC has been adopted by Parliament within the customary delay and has therefore value of law on par with the Petroleum Law, or it has not and is therefore a pure regulatory act.13

Decree no. 726/PR/PM/MPE/2010 (Implementation Decree), which regulates the implementation of the Petroleum Law, lacks clarity and coherence. The Implementation Decree focuses on the exploration and production permits and authorizations, and in some instances appears to contradict the model PSC. For example, articles 39-42 on production permits conflicts with the contractor’s rights established under art. 12 of the model PSC.

Two points deserve clarification: a) the relative hierarchy of the Implementation Decree and the model PSC; and b) whether a signed PSC may derogate from the model PSC. Ensuring that all provisions of a regulatory nature be “non-negotiable” and included in the implementing regulation as opposed to the model PSC could go a long way towards improving the clarity and ease of administration of the current regime.

The topics normally addressed in petroleum regulations and the practice in Chad are summarized in Table 2.2.

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13 Art. 132 of Chad’s Constitution reflects French constitutional law on ordinance, which is a measure taken by the government on matters that fall within its purview. It is part of the delegation of legislative powers in the constitution. The ordinance does not have the force of law unless adopted by Parliament within a fixed delay. Until adopted by Parliament, ordinances are regulations and can be changed by decree taken by the council of ministers. Once adopted they are law. If not adopted, they become obsolete.
Table 2.2 – Typical scope of implementing regulation and practice in Chad

<table>
<thead>
<tr>
<th>Scope regulations in international practice</th>
<th>Chad’s practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Licensing Regulations</strong></td>
<td></td>
</tr>
<tr>
<td>Licensing of petroleum rights is addressed in specific licensing regulations which cover the procedure, criteria, institutional arrangements, and transparency of the licensing process.</td>
<td>There is no specific licensing regulation for award of petroleum rights, only very generic principles in the Petroleum Law and generic references in the Implementation Decree.</td>
</tr>
<tr>
<td><strong>Petroleum Operations Regulations</strong></td>
<td></td>
</tr>
<tr>
<td>Survey and Exploration Approval</td>
<td>Partially covered</td>
</tr>
<tr>
<td>Appraisal of Discovery</td>
<td>Partially covered</td>
</tr>
<tr>
<td>Drilling and Workover Operations, Well Evaluation and Completion, Operational Records and reports</td>
<td>Partially covered</td>
</tr>
<tr>
<td>Development and Production licenses</td>
<td>Covered</td>
</tr>
<tr>
<td>Reservoir engineering and conservation</td>
<td>Covered</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>No specifications in the Implementation Decree, except for reference to a decommissioning plan to be filed, which minimum requirements are set in the model PSC.</td>
</tr>
<tr>
<td>Pipelines and Transportation – access to third parties</td>
<td>Not covered</td>
</tr>
<tr>
<td>Storage and Terminal Facilities, Processing facilities</td>
<td>Partially covered</td>
</tr>
<tr>
<td>Measurement</td>
<td>Partially covered</td>
</tr>
<tr>
<td>HSE, storage of CO2</td>
<td>Not covered</td>
</tr>
<tr>
<td>Production Fees and Area Fees</td>
<td>Not covered</td>
</tr>
<tr>
<td>Applications and reporting</td>
<td>The Implementation Decree regulates this on a case-by-case basis.</td>
</tr>
<tr>
<td>General provisions including transfer of license, audit and inspections, good oilfield practice, insurance, use of labor</td>
<td>The Implementation Decree regulates the transfer of license, not the audit and inspections, refers to the good oilfield practice, not to insurance and use of labor.</td>
</tr>
<tr>
<td>Land rights</td>
<td>Detailed regime in the Implementation Decree, which also incorporates by reference the common law principles on land, including on compensation mechanisms.</td>
</tr>
<tr>
<td>Registration of all existing oil and gas licenses</td>
<td>Inadequately covered</td>
</tr>
</tbody>
</table>

*Source: Authors.*

2.1.7 The Petroleum Contracts

Particularly in developing economies, contracts tend to be extensive and to include provisions that would normally be the object of laws or regulation. This approach is common in the early phases of sector development where a regulatory framework or capacity is yet to be developed. But it does tend to get entrenched as the sector develops, resulting in several vintages of contracts with different terms and provisions and intense negotiation processes. In this context, as the legal and regulatory framework develops, it is not uncommon to observe contracts that conflict with broader regulations/laws, or “special legal regime” to govern each individual project. There are many reasons for countries do this. For example, investors may not have faith in the legal framework of the country or may put extreme pressure on a country to negotiate special deals.

The lack of standardization may give rise to the following consequences:
• Countries that lack negotiating capacity and leverage can get bad deals;
• Challenges associated with monitoring and enforcement may arise, because the oversight body is now responsible for managing a large set of complex rules, and special regimes;
• Contract enforcement may be weakened;
• Transparency and the public’s understanding may be hindered;
• The state’s ability to develop future policy may be weakened. This is especially true for contracts that include strong stabilization clauses.

To address these risks often petroleum producing countries use model contacts. The extent to which model contracts are “adapted” to a specific project during negotiation depends on the jurisdiction. In some countries, petroleum contracts faithfully reflect the model, only changes being the names of the contracting parties, the coordinates of the area under contract, and the minimum work program obligations. This is the case of Norway, Denmark, Greenland, and the United States to cite a few.

There are clear advantages to standardization: a) lower chances to introduce amendment that conflict with existing laws and regulations; b) lower administrative costs for the government who does not have to oversee several coexisting systems; c) reduced opportunities for malpractice; and d) reduced challenges associated with the negotiation of every single project for which the negotiating skill and leverage of different parties can result in big differences across projects.

Some countries have constitutions, laws, and regulations that are very specific about the rules governing extractive industries. As a result, there may be less information in contracts and less for governments and companies to negotiate with respect to a specific contract. On the other hand, a country with less detailed laws and regulations would require more extensive contracts. Lawyers drafting the contracts will often make references to the different laws and regulations, meaning that those who seek to understand the terms must have all relevant laws and documents at hand. Intuitively, the first type of country would have a stronger legal foundation upon which to manage extractive industries according to national priorities. In addition, investors’ perception of such a country would likely be that of a level playing field as all investors would be treated in a consistent and predictable manner.

Chad’s model PSC appears to be a transition between approaches. It is very detailed and contains provisions that would normally be the object of the laws or regulation, and at times are misaligned with the overall legal framework. Under art. 12.1 of the Petroleum Law petroleum contracts as well as annexes and amendments thereto are approved by the Parliament.

Since concession agreements will not be available in the future, the following section focuses on the typical provisions of petroleum laws and PSCs according to international practice and contrasts the practice in Chad. A detailed comparison is provided in Annex 2.A. Main observations are summarized below.
• **Legal and fiscal stabilization.** The stabilization principle in the PSC specifies that in the event of a change of laws that would modify the economic and financial conditions applicable to the contractor, the parties will agree on the amendments to the contract to preserve its economy. A stability clause aimed at keeping the economic equilibrium is normally difficult to apply. The existing stabilization clause is also at odds with international practice that tends to exclude changes in environment, health and safety legislation from the scope of stabilization. While some limited forms of stabilization may be necessary in some contexts, broad stabilization clauses in contracts can have detrimental effects on sector management by undermining carefully considered policy objectives or creating disincentives for updating outdated legal frameworks.

• **Transparency provisions.** Under existing concession agreements and PSCs, the contract itself is deemed confidential. This conflicts with the disclosure obligations established by Law no. 018/PR/2016 on the transparency and good governance of the public administration (“Transparency Law”) and the communiqué no. 0482/PR/PM/MPE/HCN/CSTP/18 that require the disclosure of certain information and contracts. This apparent contradiction should be addressed and resolved.

• **Liabilities.** Under the model PSC the contractor holds the host government harmless from damage, loss or liability arising out of or connected to the activity of the subcontractors to the extent the contractor is “at fault”. International practice suggests a more extensive responsibility of contractor vis-à-vis the Government as highlighted in 2.1.3 sub g.

• **Conflict of interests and ethics.** The PSC does not address conflict of interest and principles of ethical conduct (see also 2.1.3 sub i.).

### 2.2 The Fiscal Regime for Petroleum Operations

The analysis of the fiscal regime for petroleum activities is intertwined with the analysis of the contractual framework. As noted earlier in this chapter, Chad has two types of petroleum contract: concession agreements and Production Sharing Contracts (PSCs). While there tends to be distinctive features to each, it is quite possible to structure either (and a third style, risk service contracts, not in use in Chad) to result in the same level of fiscal sharing and even degrees of control. In fact modern concessions and contracts do tend to “borrow” features from each other’s styles. Often differences arise because of administrative capacity more than the contract type.

This section focuses on the structure of the fiscal regime, and its competitiveness and efficiency. Tax administration, although crucial to the efficiency and effectiveness of the fiscal regime, is not discussed in this report.

The overall amount and percentage of profits from a field or contract area that goes to the State are usually expressed as “Government Take”. This should not be confused with “State Take”
which includes revenues for equity interests held by state-owned entities. Both are discussed below.

2.2.1 The Fiscal Regime for Concessions

Concession agreements are often referred to as “Tax and Royalty” systems. This is because most of the Government Take comes from a combination of royalty and corporate income tax, although often a special tax or tax rate apply to oil and gas operations.

Concessions in Chad are a legacy type of contract, with all new contracts issued since the Hydrocarbon Law of 2007 being PSCs. Most Government / State Take in Chad is generated from the legacy concession arrangements covering several fields operated by an ExxonMobil under conventions from 1998 and 2004, and others operated by CNPC under 1999 arrangements.

The Chad concession agreements cover three forms of Government Take (excluding take common to all petroleum contracts), as shown in Table 2.3.  

Table 2.3 Comparison of Concession Fiscal Terms

<table>
<thead>
<tr>
<th>Producing Concession Arrangements</th>
<th>Doba</th>
<th>Permit H</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership</strong></td>
<td>ExxonMobil (operator, 40 percent), Petronas (35 percent), SHT (25 percent)</td>
<td>CNPC International (100 percent)</td>
</tr>
<tr>
<td><strong>Convention</strong></td>
<td>1988</td>
<td>2004</td>
</tr>
<tr>
<td><strong>Fields</strong></td>
<td>Nya, Moundouli</td>
<td>Komé, Miandoum, Bolobo</td>
</tr>
<tr>
<td><strong>Production (bopd, 2016)</strong></td>
<td>60,250</td>
<td>54,151</td>
</tr>
<tr>
<td><strong>Government Royalty</strong></td>
<td>12.5 percent oil, 5 percent gas</td>
<td>14.25 percent oil</td>
</tr>
<tr>
<td><strong>Statistical Royalty</strong></td>
<td>1.0 percent</td>
<td>1.5 percent</td>
</tr>
<tr>
<td><strong>Corporate Tax</strong></td>
<td>50 percent</td>
<td>60 to 65 percent</td>
</tr>
</tbody>
</table>

The Government royalty is currently taken in-kind (RIK) and marketed by the National Oil Company SHT. The royalty rate is 12.5 percent for the 1988 Concession agreement, and 14.25 percent under 2004 arrangements. For the CNPCI concessions no royalty is levied on domestic sales, and 13.5 percent is levied on exported oil.

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Statistical royalty is an additional charge on export volumes and although small in comparison to wellhead royalty, its collection does provide a means of auditing export volumes.

Corporate Tax rates are variable by the convention being applied. The Komé, Miandoum and Bolobo field profits are subject to a variable tax rate based on an R-Factor. This is a profitability index that reflects the ratio between revenues and costs for the fields. While the lower bound of the index can be as low as 40 percent in a low-oil price scenario (around US$30 per barrel in current terms), in today’s oil prices it is between 60 percent and 65 percent, depending on the R-Factor (Figure 2.1). On the other hand, the Nya and Moundouli fields are subject to a fixed 50 percent corporate tax rate. The rate for the Maikkeri and Timbré fields, which are subject to 2004 Concession arrangements, is also progressive but higher rates are triggered at lower R-Factors, or when cumulative production exceeds 400 MM Bbls. The top rate for all concessions is 65 percent.

Figure 2.1 Comparison of R Factor Adjusting Corporate Tax Rate for Concessions

![Graph showing corporate tax rate adjusted by R-Factor]

A significant distinction between the 1998 and 2004 ExxonMobil concessions is the treatment of depreciation. In the 1998 concession all drilling can be amortized 100 percent in the first year. In the 2004 this was reduced to depreciation over 5 years for all successful development wells. The cost of wells is the major component of development activity (excluding the Chad-Cameroon export pipeline). While this does not alter the nominal amount of tax paid, it does significantly affect its timing and the Government Take calculated on a discounted cash flow basis.

2.2.2 The Fiscal Regime for Production Sharing Contracts

PSCs may include fiscal features similar to those used in concessions (for example, a royalty). However, as the name suggests, they rely on a slightly different concept: that of the sharing of

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15 There are four additional bands between the low and high rates.
16 This concession area is split into three zones. Only the higher, west, area is shown.
production. The degree to which that sharing takes place is based on a calculation of the value of oil and gas needed to repay costs and share profits according to a structure laid out in the contract. Often the sharing is “progressive”, that is the Government share increases as profits or proxies for profits increase. Corporate Income Tax may apply as well to PSCs.

Since 2007 all Chad’s petroleum contracts have been PSCs. However only one PSC currently produces oil to a consortium of Glencore and SHT.

The revenue of the contractor (the companies that are party to a PSC) derives from two sources: the Cost Oil, and the Profit Oil. In Chad the State’s share of Profit Oil (excluding the part due to SHT as an equity partner) is known as Tax Oil. Cost Oil is a share of production equal to the costs that have been incurred to explore for, develop and produce oil. Cost Oil cannot exceed 70 percent of the value of oil produced and sold in any accounting period. Costs in excess of 70 percent are carried forward to the next accounting period until they are recovered. This approach ensures that, in addition to royalty, the Chad also receives a share of the production as Tax Oil.

What is left after Cost Oil is taken by the contractor (30 percent of the total, plus any part of the 70 percent not required to recover costs) is then split according to a formula based on the R-Factor. This is very similar to the approach used to set the corporate tax rate in the concession agreements described above. While the Government share (ranging from 40 percent to 60 percent) and the corporate tax rates are in fact similar to those applicable to existing concessions, the minimum R-Factor is higher, and the maximum is lower in PSCs than in concessions (Figure 2.2).

![Figure 2.2 Comparison of R Factor for Profit Oil](image)

There is a further factor impacting the PSC terms in that contractor corporate tax is deemed included in the Tax Oil. This is not always the case around the world. While from the perspective of fiscal take it may not matter if there is a higher initial contractor split that is
reduced commensurately to reflect the tax rate, a key difference is that the administration of the Government share moves from the finance ministry (who is responsible for taxation), to the national oil company (who administers production sharing). The administrative implications of including the corporate tax into Tax Oil deserve careful consideration.

2.2.3 The State Participation

In addition to the Government Take, the State can participate in the benefits of oil and gas exploitation by becoming a participant in a contract. This can occur in two ways:

a. In the ExxonMobil-led Doba concessions, the SHT is an equity participant, having purchased its position from Chevron. This means that while the SHT will directly (and the State, as its 100 percent shareholder, indirectly) benefit from the profits from the concessions, it is also exposed to cash calls to fund activities and any losses or liabilities that occur. While this approach to State participation does exist elsewhere, the exposure to costs and liabilities means that it is generally not a preferred route for many countries. International Oil Companies (IOCs) are fiscally neutral on the issue as SHT (in this case) is just like any other consortium partner having to pay its way. However, special rules that might be set forth in the Joint Operating Agreement (JOA) governing the rules of participation among the companies that form the concessionaire may contain special arrangements for the SHT that would affect the neutrality of its participation. Thus, in this case, Government Take would be the share of the Profit Oil (Tax Oil) from the entire project, while State Take would include the net benefits of SHT’s participation.

b. In the PSCs, SHT has the right to back-in for up to 25 percent, paying its equity share of both past exploration costs, and development costs. However, these are not actually paid in cash but are recovered out of Cost Oil, meaning that they are effectively financed by the SHT’s partners. The “carry” of the SHT from the time incurred until recovered from production attracts an interest charge. While the principle of the interest charge is included in the PSCs, it is defined as “LIBOR + X percent”, and X does not appear to be defined.

2.2.4 Other Forms of Government Take

In addition to royalty, taxes and production sharing, other forms of Government Take under all types of petroleum agreement may include signature or milestone (e.g. declaration of commerciality, first production, etc) bonuses, surface fees, training and other social responsibility payments, as well as “local content” requirement. While the latter may not

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17 The 2010 Model PSC indicates a maximum of 20 percent, but subsequent PSCs actually issued include a 25 percent back-in right.

18 This only affects development costs. SHT’s share of past exploration costs does not incur any interest and is deemed recovered last.
directly constitute a form of Government Take, to the extent they imply increases in costs or otherwise impact the economics of a project, it may affect the Government Take.

Except for bonuses, the amounts of these other forms of take are relatively modest and are therefore not discussed in this report.

Two forms of bonus are payable in Chad; a signature bonus at the time the contract is executed, and a production bonus when a development license is granted. While the development bonus is relatively small (US$2 million appears to be the standard amount), the signature bonus can be both large and variable in size, ranging from US$6 million to US$86 million in a selection of publicly available contracts.\(^19\) The 2010 Model PSC states that bonuses are non-recoverable. However, at least one PSC allows 25 percent of a US$40 million signature bonus to be recovered through Cost Oil.\(^20\)

Government revenues from sources of general applicability such as customs revenues and VAT (where applicable) are not usually included as forms of Government Take, although they impact costs and reduce profit, thereby impacting the sharing of production in PSCs, and Corporate Tax in all cases where this is paid.

### 2.2.5 The Audit Rights of the State

Both concessions and PSCs grant the government audit rights. PSCs also provide for payments to be made to the Government of US$200,000 per year during the exploration phase, and US$400,000 per year during the production phase, as well as funding for travel and *per diem* costs of four auditors each year. It is unclear whether these payments were made and how they were accounted for. However, the total amount that should have been received by the state Treasury should be enough to provide for a meaningful training and audit funding.

### 2.2.6 Comparison with Other Jurisdictions

The basic structure of Chad’s concession and PSC is the same as may be found in other countries around the world.

However, fiscal terms vary across concessions. While it is not unusual for royalty rates to vary by individual concession or between oil and gas, it is less usual for corporate tax rates to vary across concessions. Common practice is to apply a single or standard corporate tax rate (or rate structure) to all concessions, even if the rate for oil and gas activities may be different (higher) than for other industries. In Chad, there are several variants on corporate tax rate, ranging from a fixed rate of 50 percent established at the time of the 1962 Petroleum Code, to progressive rates that act like a special petroleum rent tax. Publicly available information on CNPCI concessions is limited. There appears to be a special regime applicable on the Phase I production sold to the local NRC refinery, which is exempt from royalty and the income tax liability is not clear. On Phase II developments the rate appears to be progressive with a higher royalty rate though a rate, which differs from other concessions and PSCs. It is assumed that

\(^{19}\) OpenOil “Modeling the Mangara-Badila Fields”, March 2015.

\(^{20}\) Griffiths Energy Chari-Ouest-Doseo PSC, January 2011.
this is a R-Factor based adjustment although no details as to its exact structure are publicly available.

While the various rates applied are not necessarily an issue, the multiplicity of different structures is a complicating factor, particularly in countries that face low administration capacity.

The PSC structure is rather conventional, maintaining royalty, and introducing the concept of a cost recovery limit (70 percent of revenue), which in practice acts like an additional royalty. That is because the Government takes a minimum 40 percent Profit Oil, so is guaranteed at least 12 percent of revenue on top of the royalty rate, regardless of the project’s profitability.

Corporate tax is deemed paid by the contractor as part of the Government share of Tax Oil. Arrangements on this matter vary across the world. In some PSCs, contractors are liable to pay corporate tax on their share of Profit Oil, although the after-tax value may be equivalent to Chad’s Tax Oil share.

Provided that a receipt can be obtained for the tax deemed to have been paid (which is understood to be the case here), the approach is favored by contractors as, even if the country should change the corporate income tax rate, the Profit Oil (Tax Oil) split will remain the same.

Chad contracts allow for interests on loans to be either tax deductible or cost recoverable. This is a common practice, but one that deserves carefully oversight by the authorities to ensure that a reasonable interest rate is applied by contractors.

2.2.6.1 The Competitiveness of Chad’s Fiscal Regime

A high-level review was conducted to assess the overall competitiveness of Chad’s fiscal regime vis-à-vis other countries, using data available from existing research on fiscal regimes in Africa and around the world. Detailed modeling of Chad’s fiscal regime and that of other countries is however beyond the scope of this report and could be carried out as a separate in-depth study if necessary.

For this type of analysis, the typical approach is to compare Government Take / State Take, which is the proportion (percentage) of a project’s cash flow that is taken by the Government or State. A project may be a single-field development, or it may be many fields or projects across the whole Concession or PSC area.

As noted previously, Government Take and State Take are slightly different concepts. Government Take is the Government’s royalty, special petroleum taxes, profit oil, and corporation taxes as well as bonuses, rentals and other charges levied on a contract. Its definition (at least in comparing percentages rates between countries) usually excludes customs duties, VAT and employments costs and levies where these apply. However, these sources of revenue are often not negligible. State Take includes Government Take and revenues from direct participation by the NOC (the SHT in Chad).

There is no “right” level of Government or State Take and whether it is optimum can usually only be determined in retrospect, nor is the optimum level a constant. Too high a level of take
will stifle activity and produce less total revenue than at a lower level. Too low a level is one that does not encourage any activity at the margin, while taking less than could be sustained. Overall the sustainable level of take at any point in time is a function of the geology and the size and productivity of a field; the historic success rate of operations; the costs of operation in the country (or in a basin/area of the country where there is variability); the price of oil and gas and the attendant enthusiasm of both oil and gas companies, and the financial sector, to invest in oil and gas projects; the ease or complexity of undertaking operations in a country; and the alternatives that oil and gas companies have to go elsewhere. Thus, the optimum level of take will vary over time.

Because the optimum level varies over time, revisions are required to deal with change. This can be a tricky area. While a certain amount of flexibility can (and should) be built into contract structures, such as progressive tax or royalty rates based on the R-factor or similar metric, these are usually only good within a set of boundary conditions (for example, an oil and gas price range, or a maturity factor). In an early phase of operations in a country, when the geological potential is not well known, terms may be established that are designed to encourage broad participation and are very competitive with other countries. The main objective is to spur activity to better define the geological conditions. If that approach becomes “too successful” then “seller’s remorse” may set in, and the country find that it could have set more stringent terms, at least for newer discoveries. Approaches to address this could include specific relinquishment provisions or other incentives that have “sunset clauses” designed to limit how far they can apply. The reverse could also be true, in that a lot of initial activity can prove a disappointment, in which case further incentives may be required. Similar “resets” may be necessary when an area becomes very mature, and the type of company interested in participating may change.

The objective of this section is not to examine in any depth these alternative approaches to establishing and maintaining a competitive oil and gas sector, but rather to illustrate that the fiscal provisions, while important, are still only a single lever among many that impact competitiveness.

An overall important consideration is the fact that Chad is a landlocked country and, except for relatively modest volumes refined and used for internal consumption, is reliant on a single pipeline through Cameroon for its oil exports and monetization of its oil and gas resources. Generally, a country will benefit from a petroleum sector that is active with multiple companies. However, one of the key considerations for companies entering a country is that they have ready access to the necessary infrastructure to monetize any projects that they want to develop. In some countries this will not be an issue. **In Chad this requires ensuring easy access to the export pipeline and that there is a level playing field for all companies.** This is usually managed through regulated Third-Party Access requirements which include clear rules for accessing capacity and a level playing field as between companies for the costs involved. Transport tariffs are also a sensitive parameter for the overall economics of a project.

The result of the sensitivity analysis suggests that the current fiscal regime is overall satisfactory, although more detailed analyses are required to test the robustness of the fiscal
regime to changes in project size and circumstances, as well as potential distortionary effects of the R-Factor structure. Incentive for exploration/marginal fields might also be considered, if necessary and provided that clear “sunset” conditions are established. With regard to overall competitiveness of the fiscal system, the analysis suggests that, on the metric of Government Take, Chad’s fiscal regime is adequate considering sector maturity and country’s specific circumstances. This is discussed in the following sub-sections.

**Concession vs PSC terms: Relative Tax Efficiency**

While the concession agreements are no longer available to new companies entering the country, the different fiscal terms applicable in Chad were modeled for comparative purposes, and to assess international competitiveness. Input data was based on publicly available information associated with the Mangara-Badila fields. Even if costs may vary across fields and operators, the same field parameters (costs, spend timing and crude oil quality) were used in this analysis. This is because its scope is not to model the different fields, but it is rather to assess the relative efficiency of existing terms in capturing economic rent under different scenarios. Box 2.1 contains the main parameters utilized in our analysis.

**Box 2.1 – Fiscal Regime Sensitivity Analysis: Assumptions**

<table>
<thead>
<tr>
<th>The following terms were compared:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1988 Concession, IOC only</td>
</tr>
<tr>
<td>• 1988 Concession, 25 percent equity partner SHT participation</td>
</tr>
<tr>
<td>• 2004 Concession, IOC only (no SHT participation)</td>
</tr>
<tr>
<td>• PSC, 25 percent carried SHT participation</td>
</tr>
</tbody>
</table>

The base case scenario assumed:

| • US$75 per barrel Brent, less US$9.50 per barrel transportation and quality differential |
| • Flat economics (assumes zero inflation effects) |
| • All-equity finance |
| • US$50 million signature bonus payable |
| • US$200 million exploration costs |
| • 150 MM Bbls of oil discovery |
| • US$7.25/Bbl capital expenditure |
| • US$34 million per year plus US$2.50 per barrel operating costs |

Sensitivities were then undertaken for the following variables:

| • Brent oil price |
| • Changes in capital and operating costs |
| • Interest rate charged on SHT carry |

Figure 2.3 shows the overall cash flow for each of the fiscal terms analyzed in this section. The transport tariff for the Chad-Cameroon pipeline has a notable effect on the net-back price. The effect of such cost is different between operators that are not shareholders in the transport companies and those that are (the latter being able to recover part of the cost through transport revenue). The actual transport tariff also varies among operators, reflecting different volume-related tariffs, and individual marketing arrangements.
The difference between Government Take and State Take can also be seen, with the impact of SHT participation. All other things being equal, Government Take is in the order of 70 percent, although overall State Take is boosted to around 80 percent with SHT participation (Figure 2.4).

There is also a difference between concession’s and PSC’s Government Take, with the latter being somewhat lower. While concession’s R-Factors and corporate tax rates compare to those
used in the PSC and for Profit (Tax) Oil sharing, the fact that corporate tax is deemed to come out of the Tax Oil share is one important reason. The other is that under a PSC regime the SHT participation is carried; that is, all exploration costs are paid for by the contractor and only repaid by SHT (in equity proportion) if a discovery is made and developed. The SHT’s share of development costs is also funded by the other contractors and repaid out production, even if an interest rate (percentage presently unknown) is charged. From the perspective of the non-state investors carried arrangements are “another form of State Take” because they pay (in the first instance) 100 percent of costs and receive only (in this case, down to 75 percent) of the benefits, thereby carrying all the risk. This differs from the SHT’s participation in the 1998 concession because there the SHT participation bought its share from Chevron and is therefore assumed to participate on an equal basis with other concessionaires.

However, looking at the take in cash terms (money of the day) does not tell the whole story. It is not just how much the government takes but when it takes that matters. To illustrate this point, Figure 2.5 shows the result of discounting all revenue and cost streams at an interest rate of 10 percent. The image shows the Government Take increases to 85 percent from an undiscounted take of 80 percent, and the State Take increases to 90 percent.

Figure 2.5 Discounted Government, State and IOC Share of Cash Flow

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21 The discount rate is one that is commonly applied for such purposes and is not intended to represent any rate applicable to investments or borrowing in Chad.
Sensitivity Analysis

Sensitivities were then undertaken to look at the impact of the interest burden on the SHT carry, and changes in both the price of Brent oil, and project costs.

As previously noted, although SHT is liable to pay interest on its carried development costs until they are repaid out of production. The spread over LIBOR) is not specified. However, if the overall interest rate is 10 percent, the Government Take decreases by up to 2 percent, and the State Take by over 3 percent. Figure 2.6 illustrates this point.

Figure 2.6 Government and State Take at Different “LIBOR + X percent” Assumptions

![Graph showing Government and State Take at different LIBOR + X% assumptions](image)

While the fiscal terms of concessions and PSCs have progressive structures – increasing tax take with increasing cumulative profit – the responsiveness of such structures to oil price changes differs. **Overall, the concession regime is slightly regressive, while the PSC is slightly progressive.** Modern fiscal design favors progressivity in Government/State Take with increasing profitability. Figure 2.7 illustrates this point.

At lower oil prices the concession regime has a higher State Take than the PSC, although their behavior as oil prices rise is somewhat different.22 With total costs (pipeline tariff and field costs) in the order of US$30/ Bbl royalty, which is based on revenue, will start to approach 100 percent of profit as oil price falls to the level of costs. This can be seen in Figure 2.7 where the State Take moves rapidly towards 100 percent as the oil price falls below about US$40/ Bbl. Thereafter, the State Take will trend towards the marginal take (the take on each extra dollar of revenue).

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22 In this comparison, the 25 percent SHT equity stake in the Doba Concession is ignored, as it is an investor stake.
The 1988 Concession fiscal structure has a marginal State Take of 69.375 percent, such that it will tend to decrease towards this level when the project profitability increases. In the case of the PSC the equation is slightly more complicated. The marginal State Take starts at 61.4 percent and rises to 74.275 percent once the R Factor exceeds 3. This causes a dip in State Take as the oil price initially exceeds total cost, before increasing as a result of the R Factor triggering a higher Tax Oil share. At around US$100/Bbl the marginal State Take for PSCs and that concessions are equal.

Figure 2.7 State Share of Profits with Increasing Oil Price

Figure 2.8 shows the results of cost sensitivity. Under concession terms, the State Take increases with increasing costs, although not as a direct proportion because of the impact of the R-Factor thresholds and rates. With the PSC, there is a very marked change as costs decrease, to the point where the State Take increases by more than US$1 for each US$1 reduction in costs. This

23 The simulation refers to the terms applicable to the combined Kome, Miandoum and Bolobo fields. 12.5 percent royalty, plus 65 percent corporate tax on the remaining 87.5 percent once the R Factor exceeds 1.75. The marginal take is 65.0 percent below 1.75 R Factor when the corporate tax rate is 60 percent (12.5 percent plus 60 percent of 87.5 percent). In this simplified example the oil price is considered a proxy for profitability.

24 The simulation assumes 14.25 percent royalty, plus 60 percent Tax Oil on the remaining 85.75 percent once the R Factor exceeds 3. However, initially the Tax Oil is only 40 percent (below an R Factor of 1.75) yielding a marginal Government Take of only 48.55 percent. The Government Take increases to 57.125 percent for an R Factor between 1.75 and 3.0, and to 65.7 percent thereafter. The SHT participation adds 25 percent of the Contractor’s marginal take (e.g. 25 percent of 51.45 percent initially, rising to 25 percent of 34.3 percent above an R Factor of 3).
is because reducing costs means that the R-Factor threshold to move from 40 percent Government Profit Oil to 50 percent and then 60 percent occurs earlier in the project’s life cycle.

**Figure 2.8 Sensitivity to Capital and Operating Costs**

While the contractor initially benefits by receiving 60 percent of the additional Profit Oil arising from a reduction in costs, in later years it will receive only 50 percent or 40 percent where otherwise it would have received 60 percent without any cost reduction. The potential for the current R-Factor structure to disincentivize cost reduction (“gold plating”) should be carefully investigated.

*Sensitivity Analysis for Contractor’s Return on Investment*

In addition to looking at the change in Government Take and State Take with changing conditions, both PSCs and concession agreements (1988) were examined to see how they performed as oil price and field size varied. Development and operating costs were assumed to vary with field size so that smaller fields had a higher unit cost than larger ones. This is a simplification and does not reflect the reality in all circumstances (an example being a small field add-on to a larger development which might have a low cost of development and operation). No bonus or exploration costs were included for this comparison.

The project’s IRR (that is, the return before any Government Take or State Take) was compared to the contractor (PSC) or concessionaire’s IRR. For both fiscal regime types, changing price and field size resulted in changes in IRR as generally might be expected. IRR increased with price

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25 The model used to analyze this calculates the R-Factor annually, and it is possible that a model that uses quarterly calculations might not see the same dramatic distortion.

26 For this sensitivity a 10 percent change in oil price (up or down) was assumed to result in a 6 percent change in costs (up or down).

27 For the price sensitivity cases a 150-million-barrel field was assumed, and in the field size sensitivity cases US$75 per barrel Brent was assumed.
or size, but the contractor’s or concessionaire’s IRR flattened somewhat compared to the project IRR (Figure 2.9).

**Figure 2.9 Project, Contractor (PSC) and Concessionaire**

In each case the PSC terms provided a slightly higher contractor IRR than the concession terms, although not to a meaningful extent and both performed very much the same in relative terms. This mirrors the analysis shown in 2.8.1.2.

Both sets of terms produced marginal returns (in the order of 10 percent) at the smallest field size assumed (25 MM Bbls), although if unit costs could be reduced from those assumed then returns more in line with normal expectations could be achieved. However, the above simulation does not include bonus and exploration cost. Including these two elements would likely make either regime economically unattractive for marginal fields.

**Regional and Global Ranking**

When placed in a regional and global perspective, Chad Government Take appears to fall in the middle of the range (Figure 2.10).

Care should always be taken in these comparisons, which necessarily imply a high degree of simplification. The overall competitiveness of a country’s petroleum regime must also consider its geology, costs, and the ease and doing business.
Note: Adapted from Palantir (https://www.palantirsolutions.com/east-african-fiscal-regime-comparison/)

Compared to other countries, Chad’s fiscal terms remain generally in the middle, certainly for PSCs, with a Government Take in the 60 percent to 70 percent range (figure 2.11).

Figure 2.11 Comparative Government Take, Worldwide

Note: comparison is based on data from Palantir (www.palantirsolutions.com).
Overall, the general level of Chad’s Government and State Take is seen as being within reasonable bounds. However, a more detailed analysis, beyond the present scope, is required to consider a broader range of parameters and conditions, including non-fiscal factors, to draw actionable conclusions as to the need for improvement.

### 2.3 Feedback from Stakeholders’ Consultation

The Stakeholders’ consultation revealed substantially different perception between public and private sector actors about the clarity and coherence of the legal framework (Table 2.4). In particular:

a. The private sector remarked the lack clarity and coherence of existing laws and regulations, which lead to frequent re-interpretation of provisions and consequent uncertainty of application. Regarding the fiscal framework, current investors’ concerns relate to its applications, particularly regarding special customs regime and the qualification of the auditors appointed by the government.

b. The MPE considers the legal and regulatory framework, and its application as acceptable within the country context. The MPE also takes note of the inconsistencies among legal, regulatory and contractual provisions noted in this report, and committed to carry out an analysis. The MPE further confirmed that PSCs are non-negotiable, except for bonuses and minimum work program agreements.

Based on the feedback received, this report recommends **addressing inconsistency among legal, regulatory and contractual provisions as a matter of priority**. Going forward, the report further recommends upholding a licensing policy with **a limited number of negotiable parameters in PSCs**, limiting special arrangements to exceptions to be clearly documented and justified.
Table 2.4 – Summary of Stakeholders’ Feedback

<table>
<thead>
<tr>
<th>Key takeaways</th>
<th>Hierarchy of laws and matters to be addressed in laws should be clearly defined.</th>
<th>Transparent and accessible legal framework is a necessary prerequisite for orderly development of the sector and to attract new investors.</th>
<th>The variability of fiscal terms and special arrangements may lead to increased cost and decreased administrative efficiency.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPE</td>
<td>The hierarchy of laws and their content is considered by the MPE as adequately clear.</td>
<td>The legal framework is considered accessible to interested investors and the public. Main laws are published in the national gazette (Journal Officiel), and in the EITI website. The MPE would welcome its website, but lack of funding prevents its establishment.</td>
<td>The MPE affirmed that the model PSC is non-negotiable, except for bonuses and minimum work programs. Regarding the possibility of “gold plating” associated with the structure of the R-factor, the MPE has not come across this issue, and stated its interest in carrying out further analysis with the MFB.</td>
</tr>
<tr>
<td>SHT</td>
<td>No comment was provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chad Association of Petroleum Operators</td>
<td>A concern was raised regarding the lack of coherence in the fiscal and legal, regulatory and contractual framework that results in continuous rules’ interpretation from authorities that may end up in onerous settlements infringing the sanctity of the signed contracts and could affect the economic viability of the investments.</td>
<td>For existing operators, the main issue is the lack of clarity of the existing legal framework, which leads to frequent re-interpretation and hinders investment.</td>
<td>Current investors’ concern relates to the administrative capacity of the tax and customs authorities, which leads to audits that are not tailored to the petroleum sector and delays in the release of imported goods and equipment with impact on operations.</td>
</tr>
</tbody>
</table>
## Annex 2.A – Chad’s Legal and Contractual Framework: Comparison with International Practice

<table>
<thead>
<tr>
<th>Topic</th>
<th>Industry practice</th>
<th>Chad’s context</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award of Petroleum Exploration and Production Rights</strong></td>
<td>Governments allocate their hydrocarbon rights through licensing rounds, or direct allocation, or a combination of the two. Intuitively a government would maximize its share of benefits by “letting the market work”. Many countries use licensing rounds to increase competition among oil and gas companies to the benefit of the host government. By letting oil and gas companies compete against each other, host governments are spared from the difficult task of determining “what the market can bear”. Nonetheless, when a low number of participants is expected, licensing rounds may not be the most efficient procedure considering the high costs connected with such process.</td>
<td>Under the Petroleum Law, as amended by Ordinance no. 01/PR/2010 dated 30 September 2010 and its implementation decree no. 796/PR/PM/MPE/2010 (all three pieces of legislation together form the “Petroleum Code”), exploration and production rights can be awarded by direct negotiation or licensing rounds. Direct negotiations are likely less competitive than licensing rounds and are generally less transparent and more vulnerable to corruption. In Chad’s case the discretionary power of the Minister of Petroleum and Energy to opt for direct negotiations is substantial (see detailed discussion in Chapter 3). International practice suggests that the allocation system can be made more transparent through the definition of clear award criteria, the publication of negotiation results, and the use of external oversight bodies. The Minister’s discretionary power should also be framed.</td>
</tr>
<tr>
<td><strong>Size of licensed area</strong></td>
<td>It is extremely unusual for a State to license the entire territory over which the State has sovereign or control rights to a single company.</td>
<td>In Chad the size of exploration blocks under license or contract varies significantly, ranging from 141,860 km² (Largeau field) to 824 km² (DOH field). Awarding large blocks often results in lack of competition, and reduced incentives to accelerate development, which in turn results in lower government revenue and less geological and petrophysical data.</td>
</tr>
<tr>
<td><strong>Licensee’s rights, obligations, and the principles underlying the conduct of operations</strong></td>
<td>Rights and obligations of the licensee/contractor and principles underlying the conduct of operations are normally clearly set forth in the license/PSC. Clarity is normally improved when such provisions are gathered under a common set of clauses.</td>
<td>Rights and obligations of the holders of rights under a petroleum contract and principles underlying the conduct of operations are set forth in the relevant contract and the legal and regulatory framework. The organization of the PSC is generally clear, and relevant provisions are gathered under a common set of clauses depending on the matter that is being addressed.</td>
</tr>
</tbody>
</table>
Right to explore for and produce hydrocarbons

- It is standard practice to separate exploration and production phases under licenses and petroleum sharing contracts (PSC). Usually the license or PSC is granted for a period of 6 to 10 years (the Exploration Period), subdivided in 2 or three sub-periods (the “first”, “second”, and “third” Exploration Period).
- During the Exploration Period, the licensee or contractor has the exclusive rights to explore for oil and gas, subject to the terms and conditions of the license/PSC. Furthermore, in each Exploration Period the licensee/contractor is required to perform a Minimum Work Program (MWP). Failure to perform the MWP entails the termination of the license/PSC and the payment of the corresponding sum to the host government.
- The MWP is usually made up of a certain number of line/square kilometers of 2D/3D seismic, reprocessing of existing data when available, and drilling commitments.
- MWP obligations normally apply from the date the license/PSC becomes effective and they are not conditional on the occurrence of particular conditions or events.
- If a discovery is made that is deemed commercial, the licensee/contractor is required to apply for a production license. This requires the filing of a Field Development Plan and Field Development Budget, and the filing of an Environmental Impact Assessment and an Environmental Management Plan for the host government’s approval.
- An area that covers the discovery is “carved out” from the rest of the licensed area (there are standard rules for defining the extent of such area), and a production license/permit is granted to the licensee/contractor. The duration of the production license is generally between 15-25 years. Some countries allow for the extension of the production rights at terms and conditions to be negotiated between the parties.

In OHADA countries it is standard practice to have licenses.

| Executed JOA are not publicly accessible. Therefore, it is not possible to assess their conformity with the AIPN model as required under the model PSC. |
| Chad’s petroleum law provides for the following permits and licenses: |
| • Prospecting Permit (autorisation de prospection). The holder of a Prospecting Permit is entitled to perform preliminary surface prospecting works, on a non-exclusive basis. The permit is granted for a 2-year period, renewable once for a further 2-year period. It does not confer any preferential rights to its holder to enter into a petroleum contract. Prospecting results are disclosed to the Ministry of Petroleum and Energy (“MPE”). The transfer of rights and obligations arising from this permit is prohibited. |
| • Exploration Permit. An Exploration (permis de recherche d’hydrocarbure for concessions and autorisation exclusive de recherche for PSCs) are granted on an exclusive basis for an initial 5-year period that may be extended once for up to a further 3 years. Where a potentially commercial discovery is made, holders of exploration rights under a PSC may be granted a retention period not exceeding 2 years for oil and 3 years for gas. A commercial discovery entitles the holder to be granted a Production Permit, subject to the approval of a development plan. |
| • Production Permit. A Production Permit (permis d’exploitation for concessions and autorisation exclusive d’exploitation for PSCs) are granted for a maximum period of 25 years for oil and 30 years for gas with one renewal period of up to 10 years. |
| • Petroleum contracts are negotiated with the MPE and the CNNCP and contain all main rights and obligations established by the Petroleum Law. |
according to phases, as follows:

- **Prospecting permits** that give a right to carry out preliminary research work but do not make it possible to dispose of the product of research apart from samples. It is a license by which the company can make a first study to see if it would be interesting to carry out more in-depth surveys.
- **Exploration permits** conferring the right to freely dispose of liquid or gaseous hydrocarbons extracted from the soil during their exploration and the production tests that they may include.
- **Production permits** which are granted to the holder of an exploration permit who has proved the existence of a hydrocarbon deposit within the perimeter of the exploration permit which can be developed under technically feasible and economically profitable terms.
- **Production Sharing Contract** for the carrying out of the petroleum activities, setting out the applicable framework and obligations of the Parties.

**State Participation**

It is not unusual for a government to take a direct ownership stake in oil and gas often in partnership with private companies, and very rarely as sole operator. Usually state participation is exercised through a state-owned entity. The magnitude of state participation is generally linked to the maturity of the area: state participation in frontier acreage is not common; the state tends to participate after a commercial discovery is announced. Also, state participation may have different kind of carry provisions which affect its intrinsic cost.

The State may participate in petroleum operations either directly or through SHT. During exploration the State is entitled to an initial participation as set out in the Petroleum Contract. All costs and risks associated with that interest are incurred by the contractor (carry). During production, the State is entitled to an additional participation as set out in the petroleum contract. The model form PSC provides for an optional interest up to a maximum of 25 percent following the granting of a Production Permit.

**Associated Gas**

Considering the economic value of natural gas, industrial and developing countries are looking at financially viable options regarding the use of associated gas. Successful policies to reduce or eliminate gas flaring have three main components: legislation, monitoring, and enforcement. These policies must be complemented by market mechanisms that create both the means and the necessary incentives to utilize associated gas. The reference gas price affects the commercial viability of associated gas.

The best international practice, in countries like Norway, UK, Under the Petroleum Law natural gas is used in the following order of priority:

- by the permit holder for the purposes of petroleum operations, particularly for production or re-injection operations in the field;
- satisfaction of the needs of the local market at a preferential price;
- export, either as it is or after processing.

If Associated Gas cannot be used for the purposes of petroleum operations or cannot be marketed, the Operator shall reinject it. However, the Operator may flare it, with prior authorization from
Alberta (Canada), combine legal flaring limits, government agency reviews of new field developments, stringent monitoring and reporting requirements, and escalating penalties, including possible license termination. Countries that have high associated gas utilization rates also have commercial regimes that include unregulated gas prices and open access to adequate transportation infrastructure. In recent years, carbon dioxide taxes and other anti-global warming measures have further increased incentives for associated gas utilization in some countries. The common features of successful anti-flaring regimes include:

- Anti-flaring legislation accompanied by public reporting and monitoring
- Flexible approach that adapts to specific field circumstances
- Open and transparent access to pipelines and other infrastructure
- Independent pipeline regulatory body with effective enforcement capability and capacity for quick response, based on international best practices.

The State has in any case the right to use, at its own expense and without compensation, any amount of Associated Gas intended for the flare. In addition to its polluting effects, flaring can be an ineffective energy resource use, whereas for a good gas utilization a clear Government policy and transparent legal and regulatory framework are needed. Venting is not expressly prohibited but, being the options for associated gas utilization either operational and commercial use, reinjection or flaring, venting would seem to be de facto prohibited. This point deserves specific treatment in the law.

| Health, safety, and environmental protection | A license/PSC would normally contain provisions on health and safety, notification of hazards, emergency procedure, and protection of national heritage. These set forth, inter alia, the power of the minister/relevant government authority to intervene to prevent imminent dangers or disasters, the general principles upon which the environment impact assessment and environment management plan should comply with, the principle of compensation of affected populations, flaring of gas, and applicable principles of international law. Environmental assessment, impact assessment and mitigation plan are normally a condition for approval of the relevant field development plans and for the grant of the relevant licenses and permits. The respect of international safety and labor standards is

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28 According to the IFP Training Report dated December 2017 a development project would have been started with the technical and financial support of the Global Environment Facility. The relevant scope and the status should be inquired.

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generally specifically mandated.

- Sureties to cover potential environmental liabilities are normally addressed in the license/PSC.
- The accounting and cost recovery treatment of environmental mitigation structures and equipment is normally clarified in the Accounting Rules annexed to the license/PSC. Especially when environmental regulations do not exist, the principles for land reclamation are normally clearly defined.

<table>
<thead>
<tr>
<th>Relinquishment obligations</th>
<th>At the end of each exploration phase the licensee/contractor is required to return part of the original licensed area (for example, if the Exploration period is divided into two phases, after the first phase the licensee/contractor must relinquish 50 percent of the original area). Except for areas in respect of which a production license/permit has been granted to licensee/contractor, at the end of the Exploration Period the licensee/contractor must relinquish the entire area under license/contract.</th>
<th>Exploration Permits are granted on an exclusive basis for an initial 5-year period that may be extended once for up to a further 3 years. Election to renewal is accompanied by a requirement to relinquish at least 50 percent of the surface area covered by the permit. In the event of renewal of the Exploration Permit, the permit holder would be able to “hang on” to at least 50 percent of the original exploration area for up to 8 years. This may result in large areas under contract for which the license holder has little incentive to accelerate exploration, and de facto locks out potential competitors/investors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land use, right of access, compensation and resettlement</td>
<td>Land use and reclamation obligations are normally clearly set forth in the Hydrocarbon law, license/PSC. The licensee/contractor is normally granted the right of ingress and egress to publicly and privately-owned land (if required for the conduct of operations under the relevant license/PSC). Compensation is required for use of privately owned. The Hydrocarbon Law, Licensee/PSC normally treat long term and temporary land use differently. The principles and basis for compensation of land owners are normally clearly specified in the hydrocarbon law, regulations, and/or license/PSC.</td>
<td>The Petroleum Law sets out a general land use and right of access principle for the holder of a petroleum contract. Its implementation decree no. 796/PR/PM/MPE/2010 regulates extensively the land use for petroleum activities and refers to compensation as regulated by common law principles. Land use rights are restated also in the model PSC. The coherence and comprehensiveness of existing laws and regulations should be carefully assessed.</td>
</tr>
<tr>
<td>Ownership of data and confidentiality</td>
<td>It is the norm that all geological, geophysical and petrophysical data are the ownership of the host government. The licensee/contractor is therefore required to provide the host government with copy of raw and interpreted data, cores and other relevant data as they are acquired/processed/reprocessed and interpreted. Confidentiality obligations normally apply to both the</td>
<td>In its article 7 the Transparency Law (Law no. 018/PR/2016) states that “contracts between the administration and public or private companies (natural resources companies and companies operating public service concessions) are clearly established and brought to the attention of the public. These principles apply both to the contract award procedure and to the contract contents. These contracts are subject to the controls of the Court of Auditors and the competent parliamentary committees.</td>
</tr>
</tbody>
</table>
The use by the contractor of information acquired during the term of the contract;

- the definition of what constitutes confidential information;

- the limitations imposed on disclosures to regulatory agencies, security commission, or stock exchanges;

- the use of the data by the host government.

In some countries the host government can freely use the data and information after a certain number of years from acquisition (5 to 8 years).

Example of standard confidentiality provisions can be found in the AIPN.

**Licensee’s/ Contractor’s Local Representative**

When the licensee/contractor is not required to incorporate an affiliate/open a branch in the host government’s country, it is standard practice to request that a legal representative of the licensee/contractor be appointed to represent it in all matters related to the License/Contract. The legal representative shall be based in the Host country.

Any person carrying out petroleum activities in Chad is required to hold a petroleum contract. Foreign investors must incorporate a local company to carry out exploration and production activities in Chad.

**Assignments and transfer of rights**

The ability to transfer all or part of their rights and obligations in a contract area is very important in the petroleum industry where companies normally partner to decrease their risks. Generally, transfers to affiliated companies do not require particular formalities. Transfers to third parties are more complicated, as the host government needs to ensure that the assignee has the financial (and technical if the operatorship is transferred) ability to fulfill the requirement of the contract. Normally the assignor is not required to guarantee the obligations of the assignee, especially when the assignee is not an affiliated company. The criteria for approval or rejection of the transfer as well as authorizations and permits arising from petroleum contracts are subject to notification to and prior approval of the MPE. The transferee assumes all the contractual obligations. In the event of transfer to third parties the State may reject the transfer.

Approval and rejection, to be duly motivated and for material reasons, are set out in the model PSC. The State is granted a pre-emptive right in the event of assignment of petroleum rights.

Approval is deemed to be granted where no response to the request for approval is received within 90 days of its filing.
<table>
<thead>
<tr>
<th>Assignment or transfer of rights</th>
<th>The extent to which this practice - common under common law - is also accepted under Chadian administrative law should be explored.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unitization</strong></td>
<td>The obligation of the licensee/contractor to pursue the unitization and the right of the host government to order unitization in case a discovery straddles across two blocks is normally expressly provided for in the hydrocarbon law, the license/PSC.</td>
</tr>
<tr>
<td><strong>Abandonment</strong></td>
<td>The Petroleum Law requires abandonment and rehabilitation obligations to be included in petroleum contracts. In particular, contractors shall deposit abandonment costs in an escrow account specified under the petroleum contract. Facilities and equipment from which the contractor has recovered its costs may be transferred free of charge to the State. In addition, the Petroleum Law provides for the obligation to set out an abandonment plan.</td>
</tr>
<tr>
<td><strong>Guarantees</strong></td>
<td>The Petroleum Law sets out that in the event of transfer of a participating interest to an affiliate the transferor assumes the transferee’s performance obligations. In the event of transfer to a third party, the State may refuse the transfer. Under the model PSC the guarantee is mandatory, and its amount is linked to the minimum work program for the renewal period. Security rights in respect of work commitments are provided for in the Petroleum Law. Other types of security interests may also be required under petroleum contracts.</td>
</tr>
<tr>
<td><strong>Insurance and indemnification</strong></td>
<td>Under the Petroleum Law the contractor is required to take out insurance policies necessary to cover its oil and gas activities against all risks. These insurances are subscribed in accordance with Chadian law and practices in the oil and gas industry. The contractor is required to provide to the Minister in charge of Hydrocarbons evidence of the financial capacity of the insurer and to provide a duly certified copy thereof. The principle is further detailed in the model PSC.</td>
</tr>
<tr>
<td><strong>Sub-contractors</strong></td>
<td>Under the Petroleum Law the contractor as well as its subcontractors are obligated to subscribe to insurance policies.</td>
</tr>
</tbody>
</table>
for ensuring that the sub-contractors conform to the terms of the license/PSC. The licensee/contractor is normally required to hold the host government harmless from any damage, loss or liability arising out of or connected to the activity of the sub-contractors under the license/PSC.

necessary to cover all oil and gas activities against all environmental risks.

The PSC sets out that the contractor and its subcontractors subscribe to the insurance policies necessary for carrying out the petroleum operations, the coverage and amount of which are in accordance with the laws in force, as well as with the norms and practices generally accepted in the international petroleum industry.

Moreover, under the model PSC, the contractor shall ensure that its subcontractors comply with the generally accepted standards and practices in the international petroleum industry and the applicable laws.

The contractor shall hold the State harmless from damage, loss or liability arising out of or connected to the activity of the sub-contractors to the extent the contractor is at fault. Point of attention is the extent of the contractor’s liability for the activity of the sub-contractors.

<table>
<thead>
<tr>
<th>Right of the Host Government to develop discoveries deemed noncommercial by the Licensee/Contractor</th>
<th>The host government is normally granted the right to develop those discoveries that licensee/contractor do not deem commercial.</th>
<th>This area is not addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict of Interests and ethics principles</td>
<td>In line with good practice the license/PSC normally contains conflict of interest and ethics provisions.</td>
<td>Conflict of interests and ethics principles are not addressed.</td>
</tr>
<tr>
<td>Termination</td>
<td>Normally either party has the right to terminate the license/PSC with immediate effect in case of material breach. In case of nonmaterial breach, normally a notice period is given to the party in breach to remedy the same. Termination occurs if the breach has not been cured by the end of the notice period.</td>
<td>The State may terminate the contract in the event of material breach, after giving the contractor notice and a time to remedy.</td>
</tr>
</tbody>
</table>
| Fiscal terms | There are two main families of fiscal terms:
- Tax and royalties normally apply to licenses/concession agreements. The Licensee pays a royalty on hydrocarbon produced, or in some licenses, sold by it. Production is normally net of consumption. Corporate taxes apply to the taxable income. Rules for depreciation and amortization of investment are clearly set out in the Accounting Procedure | The two prevailing types of petroleum fiscal regimes are: the concession (or tax/royalty) regime and the production sharing contract (PSC). Under the Concession Agreement, the government cedes control of the oil in return for a royalty payment plus corporate income tax. Under the PSC the government contracts with a company to produce the oil in return for a share of the physical production. The two can be structured to be equivalent in terms of tax take and government control. |
annexed to the License. Personal income tax applies to employees of the License holder and its sub-contractor. Signature, commerciality, and production bonuses may apply. Training fees and training obligation normally apply. Incentives are sometimes granted. Losses may be carried forward until recovered or for a set number of years.

- **Production Sharing Contract.**
  The contractor pays a royalty on net production or on sales. After allowing for cost recovery, production is shared between the contractor and the host government, often on a sliding scale. Sliding scale profit sharing may be linked to reaching certain daily or cumulative production targets or may be linked to return on investment (R-Factor and RoR). In many countries the cost recovery limits are imposed. The contractor pays corporate taxes on its share of production (in some countries the host government pays corporate tax on behalf of the contractor and the percentage production share is adjusted accordingly). In some countries the host government (directly or via the national oil company) has the option to participate directly in petroleum operations. In these cases, normally the host government is “carried” through exploration (more rarely through development). Signature, commerciality, and production bonuses may apply. Losses may be carried forward until recovered or for a set number of years.

  The average government take ranges from 60-80 percent of the discounted net cash flow before tax.

  To accommodate different investment opportunities often countries make use of sliding scales based on R-factor or return on investment.

  For PSCs only:

  - Tax oil (40-60 percent share for government of total profit oil, depending on R-factor).
  - Profit oil calculated as total production minus royalty minus cost oil (with 70 percent cost limit).

  For concessions only:

  - Corporate income tax (42.5-65 percent of net profits, depending on field and R-factor).

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**Customs duty**

Many countries grant the licensee/contractor an exemption from customs duties on equipment, machinery and goods that are exclusively and necessarily used in hydrocarbon operations. In some cases, the exemption terminates at the beginning of the production phase.

<table>
<thead>
<tr>
<th>In Chad Concession Agreements and the PSCs generate the following revenue flows:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Signature bonus (US$ 40 million, with US$10 million being cost recoverable in at least one case).</td>
</tr>
<tr>
<td>• Production bonus (US$ 2 million, upon issuance of exploitation license).</td>
</tr>
<tr>
<td>• Production royalty (12.5-16.5 percent of production at well head).</td>
</tr>
<tr>
<td>• Statistical fee (1 percent of exports).</td>
</tr>
<tr>
<td>• Government participation (max. 25 percent, carried interest), gives rise to payments to SHT.</td>
</tr>
<tr>
<td>• Surface fees.</td>
</tr>
<tr>
<td>• Contribution to staff training (US$ 250,000 p/a in exploration, US$ 500,000 p/a in exploitation).</td>
</tr>
<tr>
<td>• Contribution to audit costs (US$ 200,000 p/a in exploration, US$ 400,000 p/a in exploitation).</td>
</tr>
</tbody>
</table>

The Economic Monetary Community of Central Africa (Communauté Economique et Monétaire de l’Afrique Centrale - CEMAC) customs regime is applicable. Imports of approved goods exclusively related to petroleum operations are exempt from customs duties. Exports of produced hydrocarbons are exempted from customs duties. A statistical tax applies.
<table>
<thead>
<tr>
<th><strong>Surface fees or acreage fees</strong></th>
<th>Surface fees are normally paid annually by the licensee/contractor. During the exploration phase their amount varies between US$15-100 per square kilometer, depending on the prospectivity of the area. Some countries apply a flat rate for the entire surface under contract/license. The fee is substantially increased (twice or three times as much) during the production phase. The fee is paid with respect to the licensed/contracted area only (in other words, relinquished areas are not included for the purpose of calculating the fee).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other taxes and duties</strong></td>
<td>Taxes or duties normally applicable to other sectors of a country’s economy may or may not apply to the oil and gas sector. For example, it is quite common for a petroleum project to receive special treatment for the purpose of application of personal income tax. This is due to the fact that most of the staff working on petroleum projects is on-rotation and does not remain in country long enough to be considered a resident for personal income taxes purposes. Transfers of rights and assignments may also be subject to special treatment with respect to the taxation of transaction gains.</td>
</tr>
</tbody>
</table>

An annual surface fee is due as set out in the petroleum contract. This fee is not a recoverable cost. Under the model PSC, the contractor will pay on an annual basis in CFA francs:

**Exclusive Exploration Permits:**
- first period of validity: 500F/km²/p.a.
- second period of validity: 1,500F/km²/p.a.
- third period of validity: 2,500F/km²/p.a.
- extension: 5,000F/km²/p.a.

**Exclusive Production Permits:**
- first period of validity: 1,500,000F/km²/p.a.
- second period of validity: 2,000,000F/km²/p.a.

**Domestic Transport Permits:**
- first period of validity: 1,500,000F/km²/p.a.

Contractors are subject to taxes and other contributions under the Petroleum Law, the General Tax Code and the petroleum contract.

- Fixed entry fees: granting, renewal or transfer petroleum authorizations or permits is subject to payment of fixed entry fees as follows:
  - Issuance or renewal of a prospection permit: USD 50,000.
  - Transfer: USD 1,000,000.

- Issuance, renewal, prorogation or division: USD 50,000.
- Transfer: USD 1,000,000.

- Issuance, renewal, prorogation or division: USD 500,000.
- Transfer: USD 3,000,000.

- Bonuses: the Petroleum Law provides for a signature bonus, a discovery bonus and a production bonus, to be negotiated within the petroleum contract.

- Surface area royalty: an annual surface area royalty is due as established in the petroleum contract (as per separate section of this table).

- Production royalty: a monthly production royalty is set out in the petroleum contract and ranges from 14.25 to 16.5 percent for oil and 5 to 10 percent for gas payable in cash or in kind.

- Corporate income tax: applicable rate is specified in the
petroleum contract and ranges from 40 to 75 percent. The model form PSC exempts the contractor from corporate income tax.
- Capital gains: gains resulting from an assignment of any authorization to undertake petroleum operations under a PSC are taxed at a rate of 25 percent.
- VAT: goods and services related to petroleum activities which are approved by the MPE are exempted from VAT.
- Customs: the CEMAC customs regime is applicable (as per separate section of this table).
- Withholding tax: distribution of dividends is exempt from taxation.
- Transfer duty: transfer of petroleum rights is subject to payment of a transfer duty at the rate of 1 percent.
- Abandonment cost: contractors are required to deposit abandonment costs in an escrow account as specified under the petroleum contract.
- Support contributions: various support contributions are provided for and are to be specified in the PSC.

Furthermore, the following rules apply to production sharing:
- Cost Oil limited to 70 percent, after deduction of the production royalty,
- Profit Oil, as well as its calculation method (based on the ‘R-Factor’ ratio), as set out in the PSC.
- The State entitlement to a tax oil, which comprises at least 40 percent of profit oil.

Contractors have the obligation to supply the domestic market a defined part of their production pursuant to the terms of the petroleum contract.

| Stability clauses | More than seventy percent of the countries provide some form of protection to the investor against changes in legislation, i.e. stabilization provisions. The various legislations around the world provide for different degrees of protection. The lightest form of stabilization provision consists in providing for contracts to contain provisions that have the effect of providing assurances in favor of the contractor that the contractor be protected against the financial consequences of laws, decrees, regulations or orders enacted or issued after the effective date of the contract. In its Petroleum contracts enjoy legal and fiscal stabilization of the contract terms. The stabilization principle is further stated in the model PSC, which also adds that in the event of a change of laws which would modify the economic and financial conditions applicable to the contractor, the parties will agree on the amendments to the Contract to preserve its economy. A stability clause aimed at keeping the economic equilibrium is |
strongest form, the hydrocarbon law provides for a contract to contain provisions that ensure that the rights and obligations of contractor will be unaffected by changes in laws, decrees, regulations and orders enacted or issued after the effective date of such contract. The stronger the protection against changes in legislation, the better for the investor (the opposite applies to the host government).

In contrast with international practice which excludes changes in environment, health and safety legislation from the scope of stabilization, Chad provides a blanket stabilization clause.

| Local content | It is normal practice to require the licensee/contractor to make use of local goods and services of similar/suitable quality to that of imported goods and services and provided that the price is competitive (some countries define local goods and services as competitive if they are priced at no more than 10 percent more than imported goods and services). Some countries mandate local landfall of products and material. |
| Local content | The Petroleum Law sets forth:  
- Preference to local companies for construction contracts or services contracts provided they offer equivalent conditions of quality, quantity and price;  
- Hiring, in priority, local employees with equivalent qualifications;  
- Funding and establishing training programs for local employees; and  
- Submitting reports specifying the current level of recruitment of local employees and a program for recruitment.  
Local content provisions and their effective use to drive local value creation are outside the scope of this report. However, an in-depth analysis of their effectiveness and scope for improvement is recommended. |

| Petroleum Cadaster | It is normal practice to require a petroleum cadaster, a registry of petroleum properties, and their graphical representation, usually managed by an administrative body responsible for overseeing the process of granting and managing petroleum exploration and production rights. Georeferenced cadasters provide an additional layer of information, facilitating the management of overlapping rights, as well as the design of optimal resource promotion and development policies. Modern cadaster systems also enable supporting the oversight of contract implementation and revenue modeling. |
| Petroleum Cadaster | A publicly accessible, authoritative cadaster of all existing oil and gas licenses, containing certain minimum information on the licenses and the license holders is paramount to keep better track of the oil and gas belonging to the Government, and to consolidate their supervision of, and control over, the utilization of these resources, and ultimately ensure the rational and transparent exploitation of the country’s petroleum potential.  
The provisions on the petroleum cadaster contained in Decree no 796/PR/PM/MPE/2010 do not adequately address this matter. |

| Contract Amendments | Amendments, supplements or modifications to contracts are usually required to be made in writing. These should be signed by the legal representative of the contractor and by the representative of the state, usually the sector minister. To be noted that amendments should follow the same procedure used for entering into a contract. In particular they should be normally difficult to apply. |
| Contract Amendments | Petroleum contracts can be amended by mutual agreement of the parties in writing.  
Under the Petroleum Law Annexes and Amendments to the PSC must be approved by law. This principle is restated in the model PSC.  
Concession agreements and PSCs cannot derogate from the |
| Settlement of disputes | Certainty of rights is a very important element for the investor, especially in respect of capital intensive, long term projects. The majority of the countries provide for international arbitration of contracts. | Concession agreements and Petroleum Law set forth ICC arbitration in Paris. Art. 57 of the model PSC established international arbitration under ICSID Convention to be held in Paris. |
3. Petroleum Sector’s Institutional Framework

To ensure that the petroleum industry takes important public interests into account and that resources are utilized as effectively as possible, the Ministry of Petroleum and Energy (MPE), its dependencies and state-owned enterprises under its purview must be well organized, with clear and well-defined and broadly communicated areas of responsibility, and mechanisms to guide and monitor their performance towards achieving stated sector policy objectives.

This Chapter reviews the institutional and organizational structure of the MPE, the Hydrocarbons Company of Chad (SHT), and other relevant bodies tasked with the management and oversight of the petroleum sector, particularly the Ministry of Finance and Budget (MFB) and the Ministry of Environment and Fishery (MEF). It is intended to provide the background for the identification of potential institutional reforms, and specific measures which may be adopted to improve institutional effectiveness and efficiency, and inter-ministerial coordination.

Key take-aways

The three most critical take-aways that have emerged from the institutional analyses discussed in this Chapter are listed below.

1. **Sound organizational principles should guide the design of institutional arrangements.**

   Compared to past organization models, the current structure of the MPE represents a considerable attempt to streamline internal processes and achieve operational efficiency. A few but critical improvements are suggested:

   a. An *Institutional Capacity Assessment (ICA)* should be carried out to identify the MPE’s and other critical institutions’ strength and challenges, and to ensure that resources (funding, equipment, and human capital) are aligned with its/their mission(s). The ICA would help to ensure that: the roles and objectives of each Directorate and Department within the MPE are clearly defined; overlapping mandates across ministries are addressed; where internal (within the MPE) or external (with other ministries) collaboration is necessary, primary and support roles are identified; and the legal and regulatory framework is harmonized to reflect the roles of various institutions in a clear and consistent manner. The ICA would also help to identify the resources that are necessary to carry out the organization’s mission.

   b. The MPE should ensure that its ability to effectively and efficiently use its resources is monitored and visible. To this end, performance and impact indicators, calibrated to account for local reality, should be designed to guide the MPE’s operations towards achieving its policy objectives. Performance and impact results should be made public.
Individual performance parameters should be designed in coherence with the institutional performance objectives.

2. **Ownership of and broad consensus on the negotiation process is crucial to ensure durable contracts and due process.** The use of inter-ministerial body empowered to negotiate petroleum contracts is a common practice among petroleum producing countries. To be effective, these bodies rely on the skills and knowledge of their members (and/or their advisers where necessary). Such bodies are intended to ensure that: the government retains collective responsibility and senior level buy-in across different entities; different views from government entities representing different sectors are reconciled before and during the negotiation with investors; and opportunities for undue process are reduced. In other words, it helps to establish broad consensus and a certain level of checks and balances. The current membership of the National Commission for the Negotiation of Petroleum Conventions fails to represent important stakeholders such as the Minister of Environment and Fishery, and the Minister of Economy and Development Planning. The inclusion of these important actors would ensure that broader economic and social imperatives are accounted for in contract negotiation, particularly given the broad mandate currently assigned to the National Commission by Decree No. 795/PR/PM/2006 as amended.

3. **Good corporate governance is developed when structures and mechanisms are balanced, and supportive to efficient and accountable decision-making.** The effectiveness of different corporate governance systems is influenced by differences in countries’ legal and regulatory frameworks, and historical and cultural factors. Combining ownership (sole shareholder or actionnaire unique in French) and supervisory (board of directors, BOD) roles presents overlaps that may undermine the integrity of both functions and expose decision-making to political capture. However, where limited resources and sector specific skills exist, the overlap among governance levels may act as a knowledge sharing mechanism, and contribute to timely, coherent, and efficient decision-making processes. As capacity consolidates, the separation between board membership and executive management should be pursued to strengthen the oversight function of the board and management accountability. In any event:

   a. A clear and transparent dividend and investment policy would empower the BOD to plan and make efficient business decisions, reinforce its independence, and provide a critical input for establishing and assessing management performance;

   b. To make informed decisions that lead to the achievement of the SHT’s objectives, a sound accounting and management information system is required. This would also facilitate the use of performance and impact targets, which should be formulated by the sole shareholder and detailed into management and staff performance targets; and

   c. The proper use of internal and external audit processes would further strengthen decision-making, improve cost efficiency, and the independence of the SHT management.
3.1 Sector Institutions

Countries that have had more success in managing their resource endowment usually feature a clear separation of responsibilities for policy design, oversight of the sector and commercial operations. Separation of roles and responsibilities favors accountability, transparency, and the efficient use of resources, in other words good governance. However, this management and oversight model is often not applicable in countries that are new to the petroleum sector or face capacity constraints (see box 3.1). In these cases, the establishment of a sector ministry or sector authority subject to the normal political control and oversight is often the only practical approach.

**Box 3.1 – Institutional design for petroleum sector management and oversight**

Norway has made a point of administering its petroleum resources using three distinct government bodies: a national oil company (NOC) engaged in commercial hydrocarbon operations; a government ministry to help set policy; and a regulatory body to provide oversight and technical expertise. In Norway’s case, this institutional design has provided useful checks and balances, helped minimize conflicts of interest, and allowed the NOC, Statoil, to focus on commercial activities while other government agencies regulate oil operators including Statoil itself. Norway’s relative success in managing its hydrocarbon resources has prompted discussion on whether this “Norwegian Model” of separated government functions should be recommended to other oil-producing countries, particularly those whose oil sectors have underperformed.

Seeking insight into this question, Stanford University carried out an in-depth study of eight countries with different political and institutional characteristics, some of which have attempted to separate institutional functions in the manner of Norway and some of which have not. Researchers concluded that while the Norwegian Model may be a “best practice” of sorts, it is not a universally applicable model. The separation of functions is most useful and feasible in context where political competition exists, and institutional capacity is relatively strong. When technical and regulatory talent is lacking in a country, better outcomes may result from consolidating policy, and regulatory functions (and in extreme cases commercial functions) in a single body until institutional capacity has further developed. Reforms should then focus on incremental but sustainable improvements in technical and institutional capacity.


In Chad, the government entities that intervene in the management and oversight of the petroleum sector comprise the Ministry of Petroleum and Energy (MPE) and the recently established National Commission for the Negotiation of Petroleum Conventions (National Commission). In addition, the national oil company – Société des Hydrocarbures du Tchad or SHT – carries out the state’s commercial objectives in the oil and gas sector. The Ministry of Finance and Budget (MFB), and the Ministry of Environment and Fisheries (MEF) intervene in their respective domains. Section 4.1 reviews the roles and organization of sector institutions, while section 3.2 focuses on the interaction between MPE, MFB and MEF.
3.1.1 The Ministry of Petroleum and Energy: Mandate and Organization

The Ministry's Mandate

The Ministry of Petroleum and Energy (MPE), acting through the Minister, is the primary policy maker and regulator for the sector. The MPE represents the State in all activities governed by Petroleum Law (Law no. 06/PR/2007) and its implementing regulations. The MPE shares responsibilities with the Ministry of Finance on taxation matters, and the MEF on environment protection and conservation.

In line with international practice, the MPE has extensive powers including:

- formulating and implementing policies relating to petroleum operations;
- developing, formulating, issuing and enforcing the regulations administering the Petroleum Law;
- monitoring petroleum operations and the respect of contractual obligations,
- approving development plans and relevant permits and authorizations in conjunction with the MEF (as detailed section 3);
- determining the admissibility of applications for research or exploitation permits or authorizations prior to their adoption by decree of the Council of Ministers;
- opening areas to petroleum operations;
- dividing the territory into blocks;
- supervising any public agencies and publicly-owned corporations which regulate or carry out petroleum operations;
- chairing the National Commission; and
- overseeing licensing rounds and tender procedures.

In addition, the Minister signs petroleum sharing contracts and concessions (which then undergo legislative approval), administers them, approves the assignment of contracts and concessions, approves joint operating agreements that bind the parties to a petroleum contract, issues non-exclusive study licenses. The Minister exercises such other or additional powers and functions as may be necessary, including organize the Ministry, develop, and formulate and issue the model contracts.

While the Petroleum Law identifies public tenders as the normal policy for the award of petroleum rights, it also empowers the Minister to derogate from such requirement at the Minister’s discretion. Such derogation would allow the Minister to award petroleum rights following direct negotiation between the government and interested investors through solicited or unsolicited expression of interest (so called, open-door system), thus providing flexibility in the award procedure.

Flexible award procedures are a desirable policy tool, since they allow a government to tailor the licensing system to varied and evolving circumstances. Nonetheless, open-door systems are often less competitive than licensing rounds (public tenders) and are generally considered less transparent and more prone to undue pressure from specific interest groups. Such systems can, however, be made more transparent through the definition of clear criteria for award, the
publication of the outcome of negotiations, and the use of external oversight bodies. Annex 3.A outlines the pros and cons of different allocation policies and proposes institutional solutions.

The Ministry’s Organization

The organization of the MPE is set out in Decree 429/PR/PM/MPE/2018 and summarized in figure 3.1. It comprises four directorates, each led by a Director:

1. The Directorate of cabinet, tasked with advising and assisting the Minister in the accomplishment of all his missions;
2. The Directorate of General Inspection, which ensures the correct application of the legal and regulatory framework in the sector, carries out the control, evaluation, and audit of the MPE’s services and of the entities under the functional control of the MPE, and intervenes as required by the Minister;
3. The Directorate General, which comprises seven Directions including technical services and cross-cutting services; and
4. The Directorate of Decentralized Services that oversees and coordinates the activity of field offices.

The Director General, Deputy Director General, and Inspector General are appointed by decree of the Council of Ministers, while the Director of Cabinet, the Advisors, the technical Directors and the Inspectors are proposed by the Minister and appointed by decree.

Figure 3.1 – Organigram of the MPE
While there is no ideal model regarding the organization of the MPE, basic principles of institutional organization should be considered. These are summarized in table 3.1 and implication for Chad are suggested.

Table 3.1 – Organization principles and their application to the MPE

<table>
<thead>
<tr>
<th>Organization principle</th>
<th>What does it mean?</th>
<th>How is it applied in Chad?</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear definition of institutional roles and objectives</td>
<td>Clear roles and responsibilities – everyone knows what the organization does, who does it, and how the various responsibilities are linked to the mission of the organization – lead to important institutional benefits (including increased internal control, opportunities for job specialization, improved process management, and enhanced operational performance), and contribute to improving the investment environment. The objectives of a sector ministry, and its internal organization, are greatly affected by the overall sector policy objectives. Hence clear goals expressed in a sector policy are important to devise institutional arrangements that work towards achieving them.</td>
<td>Chad does not have a published sector policy. General policy principles are set out in the Petroleum Law 2006 that underscores the importance of optimizing petroleum recovery and the conservation of reservoirs, as well as the protection of the environment (article 2.2). Decree N.429/PR/PM/MPE/2018 set out the organization of the MPE. While it represents a considerable improvement compared to previous arrangements, there are overlapping responsibilities across different departments. Detailed job description for each post and operating procedures do not appear to be in place.</td>
<td>The Petroleum Law assigns the MPE the task to ensure the optimal valorization of the national hydrocarbons base, implying a strong emphasis on both technical and economic skills and effective collaboration with MFB and MEF. There are, however, overlapping roles and unclear inter-ministerial coordination mechanisms that would require improvement. These are discussed in detail later in this section and in section 3.2.</td>
</tr>
<tr>
<td>Ability to obtain and maintain the resources, including human capital, necessary to carry out the organization’s mission</td>
<td>To be successful an organization must have the people, skills, space, funding, and other enablers (such as institutional leadership, information management, staff empowerment and delegation) to carry out its institutional and programmatic activities. The importance of human</td>
<td>An institutional review of the MPE carried out by the French Petroleum Institute (IFP) in 2017 identified a lack of coherence between the structure of the MPE (later reorganized), and the capacity of its employees to fulfil their roles. The lack of detailed terms of reference for each position was also identified as contributing factor to the overlap of responsibility across different job posts, and the difficulty in assessing</td>
<td>Results from the design and completion of the recent IFP training program suggest that a comprehensive Institutional Capacity Assessment (ICA) is required to identify the MPE’s strengths and challenges to implementing its mission, and to devise</td>
</tr>
</tbody>
</table>
capital cannot be over-emphasized: knowledge and skilled employees are resources that provide an organization the capacity to achieve its goals, and to remain flexible to changes in policy priorities, political environment, and external circumstances. To this end an organization must be able to attract and retain skilled employees, and to ensure their continuous professional development.

This is often a sore point in public administration, particularly in developing economies, that often lament scarce budgetary resources and the lack of a performance culture.

The importance of skills development and retention is recognized in decree 429/PR/PM/MPE/2018 on the organization of the MPE, which includes among the tasks of the HR Department the identification of staff incentives, performance monitoring, and solutions for continuous professional development.

<table>
<thead>
<tr>
<th>Ability to use resources in an effective and efficient manner, and to monitor the same over time</th>
</tr>
</thead>
<tbody>
<tr>
<td>This refers to the capacity of an organization to implement policies and procedures that result in cost-effective and impactful delivery of its tasks and services. Service impact, effectiveness, and efficiency are critical measures to ensure the sustainability of an organization, and to establish a culture of respect both within the organization and by the public.</td>
</tr>
</tbody>
</table>

| This principle is recognized in decree 429/PR/PM/MPE/2018 on the organization of the MPE, which assigns to the General Inspection Directorate the task to monitor and evaluate the performance of the MPE’s services, dependencies, and public companies under its purview. |

| Public disclosure of the MPE’s and its dependencies’ service performance and impact data would be an effective tool to strengthen their credibility vis-à-vis investors and the public. Such performance and impact indicators should serve as basis for the design of staff incentives by the HR Department. To this end, the MPE should set up a system for the regular assessment of staff performance, which should be included among the critical functions of the HR Department. |

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29 ICAs, also known as “functional reviews”, typically assess the following areas: 1) Leadership capacity: the ability of the leadership team to develop a vision and inspire others to achieve it; 2) Operational capacity: the ability to obtain and maintain resources; 3) Management capacity: the ability to effectively use the resources; and 4) Adaptive capacity: the ability to respond to changes.
Regarding the public disclosure of performance data of the public companies that are under the control of the MPE, the General Inspection Directorate could be required to collaborate with the relevant service of the MFB.

Compared to past organization models, the current structure of the MPE represents a considerable attempt to streamline internal processes and achieve operational efficiency. There remain a few grey areas which deserve further consideration. The main points are listed below:

1. The Directorate of General Inspection (DoGI) has among its attribution the function of internal auditor. In this capacity the DoGI has access to all contracts, documentation, and accounts of the MPE, its decentralized services and public companies under its purview. It would be important to clarify whether the DoGI has a functional link to the Court of Auditors, and to what extent its functions overlap with those of such institution.

2. The responsibility to oversee the proper application of the law, regulations, ministerial directives, and international agreements is listed among the responsibility of several directorates, namely the DoGI, Production and Transport Department, the Legal Affairs and Litigation Department, and the Economic and Fiscal Studies Department (limited to the financial and fiscal aspects). While technical aspects of laws, regulations, ministerial directives, and contracts require the input of technical departments, the primary responsibility should rest with a specific department or directorate, while others should be assigned supporting roles.

3. Similarly, a few Departments are tasked with “contributing” to the drafting of laws, regulations, contracts and international agreements related to the sector. To facilitate internal coordination and ensure accountability, it would be advisable to entrust the Legal Affairs and Litigation Department with the primary responsibility to prepare draft laws, regulations, contracts, and to coordinate with other MPE’s department as well as with relevant Ministries (primarily the MFB and MEF), as required.

4. While Information Technology is an integral part of modern geo-referenced cadasters and contract management systems, the management of such systems does require specific technical knowledge and expertise which is typically not available in an IT service (part of the attribution of the HR Department). A geo-referenced petroleum data base and cadaster could also in the future constitute the basis of the national geological
service (a stand-alone entity potentially servicing several ministries). The development and management of the geo-referenced data base should be entrusted to a technical department such as the Exploration, Production and Transport Department, while the associated cadaster and contract management system should be entrusted to the Legal Affairs and Litigation Department. This is particularly important given that the recently approved Domestic Resource Mobilization and Management Project envisages an important financing towards the design and establishment of a geo-referenced petroleum cadaster and contract management information system, which requires proper anchoring within the organization (see Annex 3.B).

5. Similarly, the collection and disclosure of all data related to the energy and petroleum sector would seem a task that require a level of technical comprehension and analysis normally not available in IT services. Regarding data collection and disclosure, the extent of IT services responsibility and that of other technical departments, particularly the Economic and Fiscal Studies Department should be clarified.

6. A modern and efficient information system is a critical element of the performance of any organization. Information technology is a fast-evolving field that require updated and focused knowledge, as well as organizational visibility to ensure its ability to obtain and retain resources for its effective functioning. The function of IT services differs profoundly from that of human resources, and such difference is reflected in the type of management and technical skills required in these two areas. Given the importance of both functions, it would be advisable to consider separating them in two Departments.

3.1.2 The National Commission for the Negotiation of Petroleum Conventions: Mandate and Organization

The National Commission’s Mandate

Ownership of the negotiation process is crucial to ensure durable contracts, particularly given the inter-sectoral nature of petroleum contracts. Often an inter-ministerial body is tasked with contract negotiation. This practice is common among petroleum producing countries and is intended to ensure that: i) the government retains collective responsibility and senior level buy-in across different entities; ii) different views from government entities representing different sectors are reconciled before and during the negotiation with investors, and iii) opportunities for undue process are reduced. In other words, it helps to establish broad consensus and a certain level of checks and balances. Institutional capacity of such high-level bodies is also a critical element for their success.

In Chad such inter-ministerial body is the National Commission, which is tasked to negotiate all upstream and downstream contracts. The National Commission was created by Decree N. 795/PR/PM/2006, of August 28, 2006, and reorganized by the Decree N. 07-592/PR/PM/MP/2007, of August 9, 2007.
The National Commission’s Organization

The institutional arrangements associated with the negotiation of petroleum contracts largely reflect the political economy of a country and its general system of government. For example, in Liberia the Hydrocarbons Technical Committee - an inter-ministerial body empowered to negotiate petroleum contracts – is chaired by the Chief Executive Officer of the National Oil Company of Liberia, and includes the minister of justice, finance, land, labor, mines and energy, advisors to the President, the chairperson of the National Investment Commission, and a representative of the Environmental Protection Agency.

Where important contracts are being negotiated or decision-making is centralized, the inter-ministerial committee may be chaired by the head of government to give credibility to the process and arbitrage among potential opposing priorities among ministries. In some countries, the role of inter-ministerial bodies extends beyond the negotiation process itself and is often intended to facilitate an otherwise asymmetric access to information among government agencies once the contract is in place. This is for example the case in Guyana where the Inter-Ministerial Technical Committee on Petroleum in intended to ensure the coordination between the Ministry of Natural Resources and the Ministry of Finance, or Thailand where the Petroleum Committee takes all major decisions regarding the award and oversight of petroleum contracts.

In Chad, the National Commission is chaired by the Minister of Petroleum and Energy, and includes the Minister of Finance and Budget, the Director General of SHT, and the Advisors for Petroleum to the Presidency of the Republic and the Prime Minister. Compared to international practice, the composition of the National Commission fails to represent important stakeholders such as the Minister of Environment and Fishery, and the Minister of Economy and Development Planning. The inclusion of these important actors would ensure that broader economic and social imperatives are accounted for in contract negotiation.

3.1.3 The National Hydrocarbons Company of Chad (SHT): Mandate and Organization

The SHT’s Mandate

Governments’ petroleum sector policies often pursue a variety of development and socioeconomic objectives, including the maximization of the net present value of the economic rent derived from the exploitation of petroleum, inter-temporal equity, the promotion of backward and forward linkages, the promotion of bilateral trade, energy self-sufficiency, sustainable energy mix, and security of supplies. National oil companies (NOCs) are often used to achieve a wide array of these objectives, as primary tool or in combination with other policy tools. The choice of policy tools – NOC, regulation, or a combination of both – depends on the type of objectives that policy makers wish to achieve and their relative priorities. These in turn depend on the country specific context. Exogenous factors, including oil and gas prices,

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30 This section is adapted from S. Tordo et al, National Oil Companies and Value Creation”, Volume I, World Bank’s Working Paper No.218/2011.
economic cycles, and the existence of international sanctions, also affect government policies. This helps to explain the diversity of policies pursued by governments over time, and the variety of objectives assigned to their NOCs.

NOCs differ on several very important variables, including the level of competition in the market in which they operate, their business profile along the sector value chain, and their degree of commercial orientation and internationalization. One thus needs to be mindful of possible over-generalizations. On the other hand, most NOCs share at least some core characteristics: they are usually tied to the “national purpose” and serve political and economic goals other than maximizing the firm’s profits. Perhaps this is the most relevant single factor that explains their existence and resilience in very different political, social and economic environments.

The SHT is a limited company wholly owned by the Government of Tchad. It was established by Law 27/PR/2006 of the 23 of August 2006, later modified by Presidential Order N. 001/PR/2017 of the 27th of February 2017 with primarily a commercial mandate, and the mission to implement Chad’s industrial and commercial policy objectives in the hydrocarbons sector.

According to its Statutes (Decree 307/PR/2017 of the 11th of April 2017) the SHT’s mandate is:

- The exploration, development, production and transport of oil and gas;
- The refining, transport, storage and distribution of petroleum products;
- The sale of oil and gas and petroleum products;
- The preparation of studies related to its activity;
- The training and promotion of its national personnel as necessary to manage all aspects of the petroleum sector.

Presidential Order N. 001/PR/2017 envisages the following two additional mandates:

- The participation in companies and consortia of companies; and
- The creation of investment funds.

These additional mandates are not included in the SHT’s Statutes, which suggests that, since its creation, the mandate of the SHT has been progressively refocused on the traditionally “core activities” of a petroleum company. Table 3.2 is a representation of the current portfolio of activities of the SHT.

Table 3.2 - The SHT’s participating interest

<table>
<thead>
<tr>
<th>Company</th>
<th>Sector</th>
<th>SHT’s participating interest (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consortium Esso-Petronas-SHT</td>
<td>Hydrocarbons production</td>
<td>25</td>
</tr>
<tr>
<td>Consortium CNPCIC-Cliveden-SHT</td>
<td>Hydrocarbons production</td>
<td>10</td>
</tr>
<tr>
<td>Consortium PCN-Glencore-SHT (Mangara/Badila)</td>
<td>Hydrocarbons production</td>
<td>15</td>
</tr>
<tr>
<td>Consortium PCN-Glencore-SHT (Krim)</td>
<td>Hydrocarbons production</td>
<td>15</td>
</tr>
<tr>
<td>Consortium Glencore-Griffith-SHT (Kibea)</td>
<td>Hydrocarbons production</td>
<td>25</td>
</tr>
<tr>
<td>Société de Raffinage de N’Djamena (SRN)</td>
<td>Refining</td>
<td>40</td>
</tr>
<tr>
<td>Société de Raffinage de Rig Rig (S3R)</td>
<td>Refining</td>
<td>40</td>
</tr>
<tr>
<td>Cameroon Oil Transportation Company</td>
<td>Pipeline transportation</td>
<td>21</td>
</tr>
</tbody>
</table>
The company’s mission is described on its website as follows:

- To contribute to the valorization and efficient management of Chad’ oil and gas resources, including upstream and downstream activities;
- To maximize value creation for the sole shareholder though the creation of subsidiaries and the participation in petroleum operations with other companies;
- To become a competitive and integrated company;
- To be responsible towards the State for partners’ activities and for the performance of the company;
- To act as a major player in the petroleum sector at home and internationally; and
- To act as a major player in the international petroleum market.

The SHT is a relatively young company in a country with a thin capital market and a small local industrial sector, where most of the territory has seen little to no exploration. In this context, the efficient and sustainable exploration and exploitation of petroleum resources is likely the most pressing objective to ensure the SHT’s growth and sustainability.

Defining proper mission objectives for the SHT is thus critical to value creation. For example, creating a skilled workforce, developing technology, and supporting the local supply industry would allow the SHT to lower the cost of operations while fulfilling its national mission objectives. On the other hand, developing industries that are not essential to its core business (for example, waste management, banking and capital investing) bear the risks of diverting limited resources and management attention, ultimately resulting in lack of efficiency and impact. A strategy of minority participations only partially addresses this risk.

**The SHT’s Organization**

From a corporate governance perspective, adequate oversight and control exercised by the owner is of primary importance to reduce information asymmetries and the potential for managerial rent-seeking. Generally accepted principles of good corporate governance exist and will be referred to in this subsection. However, in practice a national oil company’s (NOC) oversight and control systems are affected by its mandate, which in turn depends on several context variables, such as a country’s public-sector governance, its oil dependency, and the size of its resource endowment, and affect the NOC’s strategy.

It is not infrequent for NOCs to be granted special privileges by law, such as the exclusive right to conduct petroleum activities solely or in association with private oil companies and
mandatory minimum levels of NOC participation in petroleum operations. This is the case in Chad too, where the SHT has a minimum participating right of 10 percent in all PSCs, with the option to acquire an additional 15 percent when a commercial discovery is made. The SHT is also the only title holder in PSCs, and exploration and production permits may only be granted to it. Countries that give their NOCs special privileges tend to be dependent on petroleum revenue, while in countries that are net oil importers or have small resource endowments NOCs often have to compete with private sector companies. This policy choice seems to reflect the propensity of oil dependent countries to use their NOCs to capture additional rents (in addition or in preference to the fiscal regime). It may also reflect a government’s desire to control the pace of exploitation of the resource base through mandatory participation of the NOC in petroleum activities and legal restrictions on ownership and access to petroleum resources. NOCs that enjoy the strongest privileges are those that are entirely owned by their government. Special privileges, coupled with concentrated ownership, tend to reduce incentives to efficiency by sheltering an NOC from competition with private oil companies. This risk can be addressed through strong internal governance arrangements, including transparency of NOCs operations.

The SHT is a limited liability company wholly owned by the Government of Chad. It has full financial autonomy, and is governed by a General Assembly, a Board, and a General Manager in accordance with the provisions of the company law of the Organization for the Harmonization of Company Law in Africa (Organisation pour l’Harmonization du Droit des Affaires en Afrique – OHADA). Like other NOCs, the SHT governing bodies have ample decision-making power and autonomy.

This sub-section reviews the SHT’s external and internal governance mechanisms and compares them with generally accepted governance principles for state-owned enterprises, and NOCs in particular.

External governance arrangements

External governance arrangements relate to the relationship between the NOC and the state as its owner—that is, the ownership structure of the NOC and the organization of state ownership. Countries that depend on petroleum revenues usually entrust the ownership function of the government to the ministry of finance or an asset management agency. Some countries assign such task to the sector ministry, and very few, like Chad, to the presidency of the republic. There are pros and cons associated with each of these options: the ministry of finance or a government asset management corporation would likely emphasize efficiency and financial sustainability, as well as the NOC’s contribution to the state budget; the sector ministry would likely prioritize the technical role of the NOC and its potential to reduce information asymmetry with the private sector; the presidency would likely prioritize broader political objectives. The choice of arrangement greatly affects the strategy and operations of the NOC, as well as its overall governance.

The statutes of the SHT provides for the sole shareholder (actionnaire unique) to be represented by the Secretary General of the Presidency, The Minister in charge of Hydrocarbons, The Minister in charge of Finance, the Secretary General of the Government, and the Director General of the SHT, for the purpose of the General Assembly (ordinary or extraordinary).
powers conferred to the General Assembly are, in accordance with OHADA principles, very wide. No parliamentary oversight is required under the SHT’s establishing law or its statutes.

**The SHT does not have an explicit ownership policy.** Having an explicit ownership policy can reinforce the authority and responsibility of the owner and provides guidance to the board. Such policy usually defines the overall objectives of state ownership, the state’s role in corporate governance and the manner in which the policy will be implemented, including the extent of government participation (priority or strategic sectors, controlling or non-controlling share), and the policy with regard to the exercise of voting rights in equity investments (active or silent owner).

Although not explicitly discussed in the SHT’s Statutes, a critical task of the shareholder representative is that of **translating the company’s objectives into performance targets.** These should include overall financial performance targets, and operational targets to guide business practice and monitor efficiency and clear public policy targets to measure the SHT’s contribution to local economic development as relevant. Targets should be clear and a methodology for measuring them should be made explicit in the shareholder’s compact or similar agreement between the owner and the board of directors (BOD), which will then translate overall targets in strategies and performance indicators.

**Internal governance arrangements**

Internal governance includes institutional arrangements, such as the composition, structure, functioning and authority of the BOD, and the NOC’s management processes, such as recruitment, oversight and replacement of key executives, decision-making process, sources of capital, the degree of budgetary autonomy, disclosure and transparency standards, the skill base, and human resources policies.

The duties of an NOC’s BOD are generally comparable and similar to those usually attributed to the BODs of other state-owned enterprises and of companies in the private sector, and normally include appointing corporate officers and executive management and evaluating their performance; approving investment policies; ensuring that internal financial and operational controls are in place and appointing auditors; confirming that processes are in place to manage risks; establishing performance indicators and benchmarks in line with the objectives of the company; and ensuring that financial statements and other disclosures clearly present the company’s performance. These duties, normally specified in the law, by-laws of the company, serve to set the board’s authority vis-à-vis the management providing the basis for management accountability and to defining management independence from the owner. Within this general framework, there often are differences in level of authority and decision-making power across NOCs. For example, in some NOCs, budget, or investment decisions, or decisions that have a significant financial impact on the company’s affairs require formal approval by the government or by parliament. In these cases, the BOD and the general shareholders’ assembly are not the ultimate governing bodies of the company.

The powers of the SHT’s BOD are summarized below:

- To approve reports on the company’s affaires;
• To propose and revoke the General Manager of the company;
• To approve the organigram of the company and its internal procedures;
• To approve HR policies;
• To approve administrative, financial and procurement procedures and all other internal procedures that are necessary to the orderly functioning of the company;
• To approve the company’s budget, its accounts, and assets acquisition and dispositions;
• To approve the acquisition of participating interests;
• To approve borrowing;
• To appoint special committees; and
• To assign special duties to its members.

The size of the BOD and its composition (professionals versus government officials) affect the efficiency, quality, and independence of the decision-making process. In general, smaller BODs have been associated with higher efficiency. The need to ensure an adequate level of professionalism and independence of the board (both actual and perceived) is common to all state-owned entities where government officials often serve as board members. Combining ownership and supervisory roles results in overlaps that may undermine the integrity of both functions and expose decision-making to political capture. In any event, requisite skills and experience should be specified in the law or by-laws of the NOC and should apply to all members of the board. Furthermore, separation between board membership and executive management should be observed to strengthen the oversight function of the board.

NOCs and state-owned companies increasingly have independent directors with professional and academic backgrounds in relevant business areas. Nomination committees are used to appoint board members (like for example in STATOIL, Norway’s NOC), although this is a rare practice for NOCs. Such committees are composed of individuals themselves deemed to be independent and objective and can reduce political interference and increase the independence of the board, although it is difficult to expect perfect independence when the owner is the state. The number of independent directors usually reflects the concentration of ownership in the NOC. Government officials from various government levels—including parliament and subnational governments—are members of the BOD for most of the NOCs. In some cases, a high-level government official—often at the minister level—is the chairman of the BOD as it is the case for the SHT.

The BOD of the SHT comprises the following 8 members:

- The Secretary General of the Presidency, who is also the Chair of the BOD
- The Director General of the SHT

31 An “independent” director is one who is independent in conduct, character and judgement, and has no relationship with the company, its related corporations, its substantial shareholders or its officers that could interfere, or be reasonably perceived to interfere, with the exercise of the director’s independent business judgement in the best interests of the company (code of corporate governance, 2018, www.ecgi.global/download/file/fid/17234). Hence, independent directors exclude government officials, employees of the company or any of its affiliates, or representatives of employees.
• A representative of the Ministry in charge of Hydrocarbons;
• A representative of the Ministry in charge of Finance;
• A representative of the Secretariat General of the Government;
• 3 persons appointed on the basis of their professional competence.

It is important to highlight the overlap between the members of the General Assembly and the members of the BOD, as well as the overlap between management and governance bodies. This practice is not in line with commonly accepted principles of good governance that require separation of responsibility among ownership, oversight, and management of a company. Separation of responsibility is important to prevent conflict of interest and to ensure accountability and operational independence in the management of the SHT. To be noted that the Secretary General of the Presidency has the casting vote in case of equality of votes within the General Assembly and the BOD. Table 3.3 below illustrates this point.

Table 3.3 – Overlaps in the SHT’s Ownership, Oversight, and Management

<table>
<thead>
<tr>
<th>Ownership function</th>
<th>Oversight function</th>
<th>Management function</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Assembly</td>
<td>Board of Directors</td>
<td>Company’s management</td>
</tr>
<tr>
<td>Secretary General of the Presidency</td>
<td>Secretary General of the Presidency</td>
<td>Director General of the SHT</td>
</tr>
<tr>
<td>Minister in charge of Hydrocarbons</td>
<td>A representative of the Ministry in charge of Hydrocarbons;</td>
<td></td>
</tr>
<tr>
<td>Minister in charge of Finance</td>
<td>A representative of the Ministry in charge of Finance;</td>
<td></td>
</tr>
<tr>
<td>Secretary General of the Government</td>
<td>A representative of the Secretariat General of the Government</td>
<td></td>
</tr>
<tr>
<td>Director General of the SHT</td>
<td>Director General of the SHT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 persons appointed on the basis of their professional competence.</td>
<td></td>
</tr>
</tbody>
</table>

In addition, the SHT’s Statutes do not include criteria for the appointment of the 3 professional board members, their level of independence from the government, the term of their appointment, or the authority that appoints them. The overlap in the three layers of governance may lead to reduced checks and balances, which are necessary given the ample financial and operational autonomy of the SHT. Notwithstanding the foregoing, where limited resources and sector specific skills exist – as it is the case in Chad – the overlap among governance levels may act as a knowledge sharing mechanism, and contribute to timely, coherent, and efficient decision-making processes. This governance model is not uncommon among NOCs. For example, prominent NOCs like Petrobras and Sonatrach are characterized by a concentration of roles at the shareholder and supervisory level. Such approach would also provide cross-fertilization by transferring skills and knowledge to government officials, while contributing to build strong governance processes. Considering the importance of the SHT to Chad’s economy and its strategic role going forward, as capacity consolidates, the clear separation of ownership, oversight, and management functions should be pursued to strengthen the oversight function of the board and management accountability, as well as the appointment of highly professional independent directors, based on explicit criteria and term mandates.
Specialized committees are often used to improve the performance of the board. These include the audit committee, the remuneration committee, the risk management committee, the corporate governance committee, and the ethics committee. Audit committees and compensation committees are often present, particularly in large NOCs, which also often use external auditors and publish their annual reports. While most NOCs have an official corporate governance policy, a few have established corporate governance committees, ethics committees, risk management committees, or sustainability committees. But this is probably a new trend for state-owned enterprises in general. Table 3.4 summarizes internal governance arrangements for a small sample of NOCs.

**Table 3.4 – Examples of internal governance systems**

<table>
<thead>
<tr>
<th>NOC</th>
<th>BOD size</th>
<th>Indep. dir.</th>
<th>Structure</th>
<th>Appointment authority and process</th>
<th>Duties of the BOD</th>
<th>BOD committees</th>
<th>Expertise of independent directors</th>
<th>Term of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNOOC</td>
<td>11</td>
<td>5</td>
<td>3 executive directors; 8 non-executive directors, of which 5 independent</td>
<td>Elected by the shareholders after nomination by the nomination committee. Independent directors are appointed by the BOD by majority decision or elected by the shareholders at the general meeting.</td>
<td>To appoint corporate officers and executive management; review operating and financial performance; approve financial statements; appoint independent auditors; approve debt issuance; declare dividends; approve registration of securities; evaluate management performance; set compensation levels; and monitor compliance with the code of ethics.</td>
<td>Audit; Nomination; and Remuneration committees, each staffed with non-executive directors with a majority of independent director.</td>
<td>All independent directors are professionals or scholars with experience in legal, economics, financial and investment matters.</td>
<td>3 years renewable</td>
</tr>
<tr>
<td>Ecopetrol</td>
<td>9</td>
<td>6</td>
<td>Directors include the Minister of Finance, the Minister of Mines and Energy, and the Director of the National Planning Agency.</td>
<td>Except for the 3 government appointees, the BOD members are elected by the general assembly at annual general meeting.</td>
<td>To enforce the codes of conduct, engage in high level decision making, and has direct impact on the activities of the company.</td>
<td>Audit; Nomination; and Corporate governance. All members of the audit committee and at least one member of the other two committees must be independent.</td>
<td>All independent directors are professionals with experience in engineering, legal and financial matters.</td>
<td>1 year renewable</td>
</tr>
<tr>
<td>KMG E&amp;P</td>
<td>8</td>
<td>3</td>
<td>Government representatives are also executives of NC KMG, itself wholly owned by the government through Samruk-Kazyna.</td>
<td>3 directors are appointed by Samruk-Kaznya; the 3 independent directors are appointed by the BOD and approved by the shareholders at the annual general meeting.</td>
<td>To define the strategy and long-term objectives of the NOC; monitor the implementation of approved policies; approve internal procedures and monitor their implementation; and manage internal conflicts.</td>
<td>Strategy and planning; Audit; Remuneration; and Nomination. Independent directors chair the Strategy and the Audit committees.</td>
<td>Independent directors are professionals with experience in financial affairs and oil and gas exploration and production.</td>
<td>3 years renewable</td>
</tr>
<tr>
<td>Petrobras</td>
<td>9</td>
<td>2</td>
<td>The State Minister of Mines and Energy, the Executive Secretary of the Ministry of Mines and Energy, the military commander of the Southeast, a member of the National Energy</td>
<td>The government appoints the CEO and 6 directors. Minority shareholders elect at least 1 director. Preferred shareholders can elect 1 director if, together and excluding the majority shareholder, they hold at least 10% of the shares.</td>
<td>The BOD determines the long-term strategy of Petrobras and oversees the acts of the Executive Board, which directs operations and manages the company.</td>
<td>Audit; Compensation and succession; and Environment.</td>
<td>Independent directors have experience in corporate finance, and quality of spending in private and public sectors.</td>
<td>1 year, renewable</td>
</tr>
<tr>
<td>Company</td>
<td>No. of Members</td>
<td>Composition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTT</td>
<td>15</td>
<td>Deputy Permanent Secretary for Energy (Chairman), Secretary General of the Office of National Economic and Social Development Board, Director General of the Department of Mineral Fuels, Deputy Permanent Secretary for Foreign Affairs, Permanent Secretary of the Office of the Prime Minister, Director General of the Department of Lands, Deputy Permanent Secretary for Finance, and Chief Financial Officer and President and CEO of PTT PLC.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHT</td>
<td>8</td>
<td>Secretary General of the Presidency; Director General of the SHT, 1 representative of the MPE, 1 representative of the MFB; 1 representative of the Secretariat General of the Government; 3 professional board members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sonatrach</td>
<td>13</td>
<td>The BOD comprises representatives of: Ministry of Finance (2), Central Bank (1), and Ministry of Energy and Mines (2). In addition to the President and General Manager of the NOC, there are 4 executive directors, 2 employees’ representatives, and 1 external appointee with expertise in oil and gas operations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Policy Council, and the president of the National Development Bank.</th>
<th>least 10 percent of the NOC’s equity.</th>
<th>public organizations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTT</td>
<td>The Annual General Meeting of shareholders elects qualified directors who have previously been selected and nominated by the Nomination Committee (based on certain criteria).</td>
<td>To define the NOC’s vision, directions, and strategies; to endorse major strategies and policies, including objectives, financial targets, and operating plans; to establish corporate accounting, financial reporting, and financial auditing policies; to manage conflicts of interest; to define comprehensive risk management guidelines and to establish efficient risk management systems and process; and to establish senior management’s compensation policies.</td>
<td>Audit; Nomination; Corporate governance; and Remuneration.</td>
</tr>
<tr>
<td>SHT</td>
<td>The Annual General Meeting of the shareholders</td>
<td>To approve reports on the company’s affairs; propose and revoke the Director General; approve the organigram of the company and its internal procedures; approve HR policies; approve administrative, financial and procurement procedures and all other internal procedures; approve the SHT’s budget, its accounts, and assets acquisition and dispositions; approve the acquisition of participating interests; authorize borrowing; appoint special committees; assign special duties to its members.</td>
<td>N/A</td>
</tr>
<tr>
<td>Sonatrach</td>
<td>The General Assembly, chaired by the Minister of Energy and comprising the Minister of Finance, the Governor of the Central Bank, the Commissioner General for Planning, and a representative of the Presidency, is the highest governance body. The Minister of Energy has extensive powers: it appoints Sonatrach’s President and General Manager (PDG), who is also the Chairman of the BOD, and provides prior consent to the appointment by the PDG of the executive committee.</td>
<td>The powers of the BOD, the Chairman and PDG are provided for in the company’s by-laws, which are approved by presidential decree. The powers of the company are very wide and concern all activities.</td>
<td>Ethics, Executives, International Projects Coordination, Projects Review</td>
</tr>
</tbody>
</table>

| Company | Ethics, Executives, International Projects Coordination, Projects Review | N/A | N/A | 3 years | Independent directors are professionals with experience in finance, economics, engineering, and business administration. |
## Internal Governance processes

<table>
<thead>
<tr>
<th>NOC</th>
<th>Budget Autonomy</th>
<th>Financial Autonomy</th>
<th>Audit Process and Disclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNOOC</td>
<td>The BOD has decision making powers on budget and investment plans, but government entities participate at various stages of budget preparation and approval.</td>
<td>The BOD has decision making powers on financial matters. But must obtain government approval for certain investments and foreign borrowing.</td>
<td>External auditors. Reports filed on relevant stock exchanges.</td>
</tr>
<tr>
<td>Ecopetrol</td>
<td>The BOD has decision making powers on budget and investment plans.</td>
<td>The BOD has decision making powers on financial matters.</td>
<td>External auditors. Material information disclosure policy in accordance with Colombian and US Securities and Exchange Commission’s (SEC) standards.</td>
</tr>
<tr>
<td>KMG E&amp;P</td>
<td>The BOD has decision making authority on budget and investment plans, but government approval is required at various stages.</td>
<td>The BOD has modest decision-making powers on financial matters.</td>
<td>External auditors. Reports according to national accounting guidelines.</td>
</tr>
<tr>
<td>Petrobras</td>
<td>The BOD has decision making powers on budget and investment plans.</td>
<td>The BOD has decision making powers on financial matters.</td>
<td>External auditors. The NOC reports according to IFRS. Reports filed on relevant stock exchanges</td>
</tr>
<tr>
<td>PTT</td>
<td>The BOD has decision making powers on budget and investment plans.</td>
<td>The BOD has decision making powers on financial matters.</td>
<td>Financial statements are always audited by the governmental Office of The Auditor General of Thailand with reports filed in Bangkok.</td>
</tr>
<tr>
<td>SHT</td>
<td>The BOD has decision making powers on budget and investment plans.</td>
<td>The BOD has decision making powers on financial matters.</td>
<td>Financial statements are audited by the external auditor (commissaire aux comptes), and are subject to the customary controls of the state. Consolidated accounts for 2015-16 were published on the SHT’s website.</td>
</tr>
<tr>
<td>Sonatrach</td>
<td>The BOD has decision making powers on budget and investment plans. Budgets are approved by the General Assembly.</td>
<td>The BOD has decision making powers on financial matters.</td>
<td>Internal auditors. Reports according to national accounting guidelines and US GAAP since 2006.</td>
</tr>
</tbody>
</table>

**Note:** Information in Table 3.4 is derived from “National Oil Companies and Value Creation”, Volume I, World Bank’s Working Paper No.218/2011.

While the SHT’s internal governance arrangements are not dissimilar from those of other non-publicly listed African NOCs with comparable size and mandate, two points deserve further consideration:

1. **Profit distribution and retention policy:** the General Assembly determines, on the recommendation of the BOD, the distribution and reinvestment of the SHT’s net profits. One of the most important decision of a BOD is to determine the distribution and reinvestment of the net profits of a corporation, within the policies and principles set by the owner (which, for the SHT is represented by the General Assembly). Setting a clear and transparent dividend and investment policy empowers the BOD to plan and make efficient business decisions, reinforces the independence of the BOD and is a critical input for establishing and assessing management performance. It is important to note that the dividend policy should consider the company’s situation, its sources of funding, plans going forward, and risk management principles. In other words, distributing a dividend to the state may not be appropriate in every circumstance. But setting a clear policy can play important signaling and accountability effects.

2. **Audit and its disclosure:** sound audit processes and disclosure policies are a critical element of good governance, and are particularly relevant for state-owned enterprises and companies that are not exposed to market scrutiny or parliamentary oversight such
as the case of the SHT. As noted in table 4.4, the SHT’s General Assembly has the power to appoint an external auditor (commissaire aux compte), as well as an internal auditor. The SHT is also subject to the normal control processes of the state through the Court of Auditors (Cours des Comptes). The Statutes are silent about the publication of audit reports. In fact, external and internal auditors play fundamentally different roles: external auditors focus on the financial situation of the company and the effectiveness of the control in place. They are independent of the company and address their report to the shareholders (in the case of the SHT, to the General Assembly). Internal auditors focus on the risks faced by the company and whether such risks are appropriately monitored and addressed. They are employees of the company and address their report directly to the BOD or the audit committee of the BOD (chaired by an independent non-executive board member to ensure the integrity of the oversight process and to shelter the audit function from political interference). Audit conducted by the state supreme audit institution would normally focus on the use of public funds and budget resources. As such, these audits are not a substitute for external audit (itself very important given SHT’s overlap among governance levels). Box 3.2 provides an overview of the main differences between external and internal audit.

**Box 3.2 – Audit and Disclosure: Purpose and Governance Arrangements**

<table>
<thead>
<tr>
<th>An external auditor</th>
<th>An internal audit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examines the financial records and issues an opinion regarding the financial statements of the company. External audits are usually performed on at least an annual basis to provide the annual statutory audit of the financial accounts. This audit is designed to show whether the accounts are a true and fair reflection of where the company sits financially. External auditors provide their experienced opinion on the truthfulness of the company’s financial statements and perform work on a test basis to monitor the effectiveness of the systems in place. They address their report to the shareholders, and are independent of the company, its management, and its owners. The manner of appointment, the qualifications, and the format of reporting by an external auditor are defined by statute, which varies according to jurisdiction. External audit reports are usually published.</td>
<td></td>
</tr>
<tr>
<td>Designed to look at the key risks facing the company’s business and how the company is managing those risks effectively. It usually results in recommendations for improvement across departments. Both financial and non-financial elements are usually included. Internal auditors work within an organization and address their reports to the audit committee and/or BOD. They help to design the company’s organizing systems and help develop specific risk management policies. They also ensure that all policies implemented for risk management are operating effectively. Internal auditors are usually employees of the company, and their work tends to be continuous and based on the internal control systems.</td>
<td></td>
</tr>
</tbody>
</table>

It is important to note that a **sound accounting and financial information system is the basis of good company governance**. Currently, the SHT does not have an integrated accounting and reporting system capable of supporting the growing complexity of its business. Management accounting has yet to be established, and sales and production statistics are held manually offline. Given the many ventures in which the SHT participates and its plans for future expansion, the establishment of a sound information management system is a critical step for
proper financial management, risk management, and performance evaluation. To address this challenge, the Domestic Resource Mobilization and Management Project, approved in July by the World Bank’s Board and awaiting effectiveness, envisages $1.2 million for the financing of:

- **A needs assessment.** This activity will review the current business processes and systems, with the objective to determine their adequacy to the SHT’s current and planned business and needs. Through business process reengineering, this activity will identify business processes that are critical to the SHT’s efficient and transparent management and their implications for its information system (scoping and basic architecture) and internal procedures. This activity includes the preparation of the new SHT accounting plan for general and management accounting, information sharing, and reporting. ToRs for the procurement of the new system will also be prepared during this activity; and

- **Implementation of accounting and management information system.** This activity will finance the upgrade of the existing accounting and reporting software or the acquisition and operationalization of a new software in accordance with the findings of the needs assessment, field testing, operationalization, and trainings for system users and administrators. This activity includes the financing of a backup server, and interconnectivity among SHT offices. The current accounting system will remain in place until the end of system testing and integrity audit. Targeted training and the preparation of relevant operations manuals are also included in this activity.

### 3.2 Inter-ministerial Coordination Mechanisms

Decree 429/PR/PM/MPE/2018 on the organization of the MPE provides for the collaboration of the MPE with other ministries on specific aspects of petroleum sector management and oversight. The same principle is set forth in the Petroleum Law. The MPE is required to collaborate with:

- the MFB on issues related to the design and administration of the petroleum fiscal regime, and issues related to the audit of companies that have been issued petroleum rights; and

- the MEF on issues related to environmental management of petroleum operations.

**Areas of Coordination between MPE and MFB**

The main area of collaboration/overlap between the MPE and MFB are outlined below.

1. The Petroleum Law (article 42) provides for the right of MPE and the MFB to examine or have examined by auditors if their choice the books and records of accounts related to petroleum operations and tax obligations. While the need for cooperation among the two ministries is evident, Decree 429/PR/PM/MPE/2018 on the organization of the MPE fails to require such coordination. In fact, article 14 on the attribution of the Economic and Fiscal Affairs Department, states that such department is responsible for the organization and supervision of audits of the books and accounts of petroleum
companies, in collaboration with another service of the MPE, the General Inspection Directorate. Yet the Petroleum Law requires companies to provide copy of their books and accounts to the MFB. This disconnect should be addressed, and procedures should be in place to **define the role and responsibility of each ministry/department in this area, as well as guidelines for petroleum companies/tax payers**. It is also important to note that, while the DGI has been carrying out regular tax inspections, the MFB has not been funding petroleum operations audits since 2004. Audit rights are forfeited after 5 years according to article 42 of the Petroleum Law (save is fraud or malpractice is suspected). Hence it is important that MFB and MPE ensure the regular funding of audits and adequate training for their staff who are tasked with the supervision of the audit mission and the follow up of audit recommendations. This gap is partially addressed through the financing provided by the Domestic Revenue Mobilization and Management Project (P164529).

2. The large Tax Payers Department (Direction des Grandes Entreprises), created by the Arrêté 058/MFB/SE/SG/DGI/2015 of April 8, 2015 and anchored in the Tax Directorate (Direction Générale des Impôts, DGI), lists among its attributions “the implementation of punctual controls of large enterprises”, the management of the tax base, the control, and the collection of corporate taxes, and the assessment of taxpayer’s filings. In Chad’s petroleum sector corporate income tax is associated with the concessionary regime, while for holders of petroleum sharing contracts corporate tax is acquitted by the State on their behalf. For these companies the DGI issues **tax certificates** that they can use in their country of origin to avoid double taxation. However, in discussions with the DGI it seems that such tax certificates have never been issued. This matter should be investigated further.

3. In line with the practice in many petroleum producing countries, goods and services that are directly necessary to petroleum operations are exempt from VAT and customs duties. Goods that are destined to be re-exported are also exempt from duties. The Petroleum Law provides for the MPE to issue exclusions lists, that are used by contractors to prepare exonerations certificates for submission to the MFB/Customs Directorate (Direction Générale des Douanes et Droit Indirects, DGDDI). The production sharing agreement sets out the goods and services that are exempt from VAT. According to a review carried out by the French Institute of Petroleum, **exemptions lists are a source of contention between the MPE and the MFB regarding their scope and entitlement, causing delays in customs clearance and creating opportunity for malpractice**. The modernization of customs and tax information systems envisaged under the Domestic Revenue Mobilization and Management Project (P164529) will help to address this issue.

4. Petroleum companies may take loans to finance the development phase of petroleum projects and transportation infrastructure, provided that interests do not exceed normal market rates. In any event, the Petroleum Law provides for the **prior approval of such loans by MPE, who shall also communicate the loan to the MFB.** This aspect is not specifically addressed in the attribution of the Economic and Fiscal Affairs
Department of the MPE and has not been mentioned by the DGI as a potential gap in coordination.

5. The Petroleum Law imposes on the holders of petroleum contracts the obligation to pay a royalty on the production of hydrocarbons. Decree 429/PR/PM/MPE/2018 on the organization of the MPE entrust the Economic and Fiscal Studies Department with monitoring volumes (assisted by the Exploration, Production, and Transport Department) and market prices. However, the Decree 429/PR/PM/MPE/2018 is silent on the coordination with the MFB to ensure that the royalties received by the Treasury correspond to those that should have been received. This is an important task, that deserves a clear operating procedure.

Overall, although the areas in which MPE and MFB are required to collaborate are clearly set for in the Petroleum Law, the modality of such collaboration do not appear to have been specified in operational procedures or in specific job descriptions for each post, which may result in duplication of tasks, unnecessary delays, and potentially conflicting priorities.

Areas of Coordination between MPE and MEF

The principle of environmental protection and conservation is prominent in the Petroleum Law, which accordingly assigns an important role to the MEF. In the past, the MPE had a department tasked with ensuring the coordination with the MEF. Such department did not have approval functions and was dismantled with the coming into application of Decree 429/PR/PM/MPE/2016 on the organization of the MPE. The main area of collaboration/overlap between the MPE and MEF are outlined below.

1. The Petroleum Law requires the holder of a research license (autorisation de prospection) or exploration permit (Permis de Recherche) to furnish an environmental impact study (EIS) to the Minister responsible for Hydrocarbons and the Minister responsible for Environment within 6 months from the issuance of such license.

2. In order to be granted a production permit (Permis d’Exploitation) the holder of and exploration permit (Permis de Recherche) that has declared commerciality of a discovery, needs to prepare an EIS, an Environmental Management Plan (EMP), an Emergency Plan in accordance with the Law on the Protection and Conservation of the Environment (Law N. 14/PR/98 of August 17, 1998), and obtain the approval of the Minister responsible for Environment. However, the Model PSC (article 36.4) requires the EIS to be approved by relevant environmental authority, on the recommendation of the Minister responsible for Hydrocarbons.

3. Building a pipeline system for the transport of hydrocarbons requires the joint approval of the Minister responsible for Hydrocarbons and the Minister responsible for Environment.

4. Prior to commencing production from a field, the holder of production rights needs to prepare the abandonment and remediation plan, which shall receive the joint approval of Minister responsible for Hydrocarbons and the Minister responsible for Environment.
5. The Petroleum Law provides for a Special Fund for the protection and conservation of the environment to be established, with modalities specified in the relevant petroleum contract. However, the Model PSC does not mention such fund.

6. Failure to comply with the environmental law and contract obligations regarding the conservation and protection of the environment constitutes a material breach, which entitles the Minister responsible for Hydrocarbons to withdraw any permit and authorization and terminate the petroleum contract.

The Law on the Protection and Conservation of the Environment (Law N. 14/PR/98) states the authority of the MEF about the approval of EIS. The organigram of the MEF includes, under the authority of the Director General for Environment, a Department of Environmental Evaluations for Fighting Pollution and Annoyances” (DEELCPN), tasked with: (i) participating in the validation of the strategic environmental evaluations and the environmental impact studies; (ii) verifying the requests for the approval of such studies; (iii) supervising and managing waste; and (iv) implementing the national regulation on pollution and nuisances. The MEF is also responsible for the oversight of the “Comité Technique National chargé de l’Elaboration, du Suivi et du Contrôle de l’Exécution du Plan de Gestion de l’Environnement des projets Pétroliers an Tchad” (CTNSC). Established in 1997, this Committee oversees (i) the preparation of the environmental management plans, (ii) the follow-up of such plans, and (iii) the supervision of the mitigation measures of environmental impact plans.

Overall, although the areas in which MPE and MEF are required to collaborate are clearly set for in the Petroleum Law, there seems to be a certain lack of coherence regarding the approval authority of environmental documentation. It would be important to clarify whether the MPE should provide his advice or consent on EIS, Abandonment Plans, and the likes or should approve jointly with the MEF. Whatever the MPE’s function, it should also be reflected in Decree no. 429/PR/PM/MPE/2018 on the organization of the MPE, which is currently silent with respect to the role of the ministry in this area. Simple guidelines for investors could also be prepared. This is particularly important since the MPE no longer plays the role of one-stop-shop.

3.3 Feedback from Stakeholders’ Consultation

The Stakeholders’ consultation revealed substantially different perception between public and private sector actors about the clarity and coherence of institutional framework (Table 3.5). In particular:

a. The private sector remarked the lack of clarity in the mandate of sector institutions and overlapping responsibilities, weak sector-specific capacity, and inadequate resources to support the effective operation of such institutions. The lack of a strategic vision enshrined in a sector policy to send a clear signal to investors is also considered a critical factor hindering the MPE’s ability to effectively interact with the private sector/market.
b. The MPE recognizes that improvements are needed for the functioning of institutions. However, it considers the roles and mandates of MPE adequately described in Decree N. 429/PR/PM/MPE/2018. The lack of funding and skilled staff is considered a hindering factor for the successful implementation of the MPE’s mandate.

c. SHT acknowledges that the current governance arrangements are not completely aligned with commonly accepted principles. However, current arrangements are justified by Chad’s specific context whereby skills and knowledge specific to the management of NOCs are scarce. To address this constraint, the SHT’s governance structure has been modeled on other prominent NOCs facing similar constraints.

Based on the feedback received, this report urges the authorities to: i) formulate a short and long-term vision of the role the petroleum sector is expected to play for the economic and social development of the country, in consultation with private sector investors and other relevant stakeholders, and ii) enshrine such vision in a sector policy to which the institutional and legal framework would be tuned.

Given the wedge in perception of institutional efficiency between the MPE and investors, this report strongly recommends that a comprehensive Institutional Capacity Assessment (covering leadership capacity, operational capacity, management capacity, and adaptive capacity) is carried out to identify the MEP’s and other critical institutions’ strengths and challenges to implementing its/their mission(s), and to devise the relevant corrective or support measures.
Table 3.5 – Summary of Stakeholders’ Feedback

<table>
<thead>
<tr>
<th>Key takeaways</th>
<th>Sound organizational principles should guide the design of institutional arrangements.</th>
<th>Ownership of and broad consensus on the negotiation process is crucial to ensure durable contracts and due process.</th>
<th>Good corporate governance is developed when structures and mechanisms are balanced and supportive to efficient and accountable decision-making.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPE</td>
<td>Recognition that improvements are needed for the efficient functioning of institutions. However, overlapping of functions in the restructuring of the MPE under decree 429/2018 is not recognized. The decree does not detail the entire organization of the MPE because it excludes Units under each Department and Directorate. For example, the MPE has a unit responsible for environmental matters, placed under the Directorate General. The absence of detailed job description for each post is recognized. The MPE sees as a challenge to their effectiveness the lack of financial and human resources. For example, the recent “austerity measures” implemented by the government led to the reorganization of the MPE with the consolidation of Directorates such as the one responsible for Information Technology that has been placed as a Unit under the HR function.</td>
<td>The MPE feels no need to include other members, like MEF and Ministry of Economy and Development Planning, as the model PSC is non-negotiable. The only items the Commission is required to opine on are bonuses and work program agreements.</td>
<td></td>
</tr>
<tr>
<td>SHT</td>
<td></td>
<td></td>
<td>SHT recognizes that its governance could be improved in the future to foresee a separation of ownership, oversight and management roles.</td>
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</tbody>
</table>
However, in the current context a concentrated ownership model has been chosen to improve effective decision-making.

Chad Association of Petroleum Operators

The Association noted with concern the lack of clarity of and overlapping mandates of the institutions (particularly regarding environmental and fiscal matters). A stark example relates to the management of environmental issues, where the oversight purview of the MPE and MEF is unclear and conflicts of authority among these entities arise due to overlapping mandates. The CTNSC (the environmental agency) faces difficulties in executing their mandate, due to lack of funding and lack of effective authority, particularly after the establishment by the MEF of the DEELCPN. Another area where conflict of authority often arises relates to the import of goods and equipment for use in operations. Exemptions lists issued by the MPE are often challenged by customs’ authorities, resulting in high release time and increased cost (for example, holding up the release of drilling equipment delays exploration and development activities and increases mobilization costs). To improve efficiency and lower operational cost, rules allowing the use of equipment and material from one field or contract to other fields/contracts should be crafted. This would reduce downtime due to current long release-
time of imported material and equipment, as well as reduce operating cost since import-export and re-import operations would no longer be necessary.

In addition, the Association noted the presence of weak sector-specific capacity, and inadequate resources to support the effective operation of government institutions engaged in the petroleum sector.

The lack of clear and publicly shared vision for the development of the petroleum sector and its contribution to the economy creates uncertainty for investors and prevents the development of investment synergy.
Annex 3.A – Open Door Systems or Licensing Rounds: Policy and Design Issues

Efficient allocation policies must consider the objectives and constraints that are specific to each country, as well as exogenous factors that are common to all or many producing countries (for example, the expected future level of oil and gas prices). These tend to change over time. Furthermore, countries tend to license E&P rights in areas that have different characteristics (including different levels of prospectivity, different distance from final markets, different access to infrastructure, different risk and development costs, different stages of development, and different materiality). Therefore, a single allocation policy will likely not apply to all situations in a given country. For these and other reasons, hydrocarbon laws often make allowances for open-door systems or licensing rounds in particular circumstances or at the discretion of the sector ministry or regulator.

Licensing rounds may take the form of auctions (where exploration and production rights go to the highest bidder) or administrative procedures (where exploration and production rights are allocated through an administrative adjudication process based on a set of criteria defined by the government). The geological potential of an area to be licensed is a key element for the choice of allocation system and bidding parameters. In areas where there has been little or no exploration activity, the problem is not just that the risks are larger; rather, there is little basis to estimate the risk. In these circumstances that are likely to attract bids from a limited number of companies, an auction may not work efficiently because bidders would apply a high discount rate to determine the expected NPV of the blocks. Therefore, the winning bids would most likely not reflect the true value of the blocks. Moreover, often the most relevant policy objective pursued by governments in frontier and under-explored areas is to improve the understanding of their geological potential. Consequently, in lieu of auctions, some governments choose to allocate petroleum exploration and production rights based on work program bidding, which ensures that a certain level of exploration activity will be carried out in these areas.

In most cases, however, both auctions and work program bidding could be considered for the following reasons:

a. the extent to which the inefficiency affects rent capture depends on the conditions for licensing, including the structure of the fiscal regime, and not just on the form of licensing system. In general terms, the higher the level of uncertainty, the more the allocation mechanism should be based on both the expected value of the blocks at bidding (observed value) and the actual value of the blocks at project completion (true value). A fiscal regime that provides the government with an adequate share of economic rent under varying conditions of profitability—that is, a progressive fiscal regime such the one applicable in Chad—would allow that government to capture additional rent in the future, should the value of the blocks turn out to be higher than
anticipated at the bidding stage. The further “downstream” a government goes to extract the rent, the more progressive the fiscal regime. Progressive fiscal regimes reduce project risk. For this reason, they tend to elicit higher winning bids than regressive ones, as investors will factor this risk reduction into their determination of the bid.

b. Auctions could be designed with minimum work program requirements. For example, profit share bidding could be combined with a minimum work program. But to establish meaningful work program obligations, the government would have to have a certain level of technical knowledge. Combining bonus bidding with minimum work program obligations may be less advisable because it may: (i) reduce the amount of risk capital available for exploration; (ii) increase the exploration thresholds; and (iii) discourage some companies from bidding. However, if a government chooses bonus bidding, it should consider providing for cost recoverability/tax deduction of the bonus.

c. The licensing program could offer a limited number of blocks, strategically chosen to prove specific plays or geological concepts. A certain level of efficiency trade-off could be worth considering, with the objective of gradually reducing the perception of risk as more data on the geological potential of the area becomes available.

A functioning petroleum cadaster is a critical tool for the allocation and management of petroleum exploration and production rights, and the monitoring of compliance with petroleum contracts. The MPE currently relies on manual procedures for the archiving and management of contracts, and licensing procedures. In addition to the lack of a functioning cadaster, the ministry does not have an intranet, and does not have management information system/document management system.

To address this important information gap, the Domestic Resource Mobilization and Management Project (P164529), approved by the World Bank Board in July 2018 and currently awaiting effectiveness, provides for the financing of the design and establishment of a geo-referenced cadaster and associated contract management system (subcomponent B.5.3, for US$ 1.6 million). This activity will support the development and implementation of a platform that will incorporate a digital cadaster linked to a geographic information system (GIS) to allow coherent and efficient management of both data (geoscience and blocks/titles), and petroleum information. This would allow the MPE to manager and oversee petroleum activities, as well as to provide access to information to interested parties. The principal objectives for the development of an integrated digital cadaster and a GIS are summarized below:

- Proper storage and management of all national oil and gas fields related data in one databank controlled by the MPE;
- Ability to download data on request and further visualization based on either a geographic data browser or a GIS (geographic information system) platforms;
- Ability to use subsurface information (from wells and geophysical surveys) through and easy-to-use 3D analysis and viewing system;
- On-line access to operating companies to stream line reporting and data provision requirement;
- Perform in-house processing on available data stored. This service would include simpler operations like the merging of navigation to seismic, and simultaneous editing of the data for redundancies and noise. It would allow the preparation of basic data packs resulting from available interpreted data (mainly geophysical surveys) which would include different types of standard processing algorithms; and
- Promotion of petroleum Chad’s exploration potential, including planning and land management.
Adequate institutional arrangements will need to be designed and implemented as soon as possible to provide guidance to the expert consultants that will be retained to design and later implement the cadaster. Staff associated with the cadaster and contract management system will need to be identified based on business needs, and their skills developed if and as necessary to ensure the effective and efficient use of this tool. Funding for this effort is not envisaged in P164529, which was designed when the MPE had a Cadaster unit.
4. Transparency and Accountability in the Petroleum Sector

Transparency and accountability (good governance) are central to the aim of transforming natural resource wealth into fair benefit sharing, thus allowing sustainable economic and social development along with improving the country’s investment environment.

This chapter focuses on the transparency and controls in the management of the petroleum sector in Chad, with emphasis on the status of initiatives currently underway to improve sector governance, and considerations on their long-term success.

Key take-aways

The three most critical take-aways that have emerged from the analysis conducted in this Chapter are listed below.

1. **Good governance with clear and well-communicated objectives should inform the petroleum sector and its role in the economy**; resulting sector policies should be shared by a multi-stakeholder consensus. A few but critical improvements are suggested:

   a. Clear policy objectives should be contained in a sector policy adopted by the Government and periodically updated.

   b. Stakeholders’ consultation on policy objectives and measures to achieve them would secure a coherent approach between public and private sector, and sustainable implementation.

   c. Adequate institutional capacity is necessary to design and implement policies. Countries with low capacity sometimes resort to partnership approaches and outsourcing.

2. **A strong legal framework is in place to support transparency in public sector administration and in the petroleum sector in general. But implementation presents some challenges.** Transparency is the flow of relevant, timely, reliable, easily understandable and easily accessible information. Public sector transparency requires the State to proactively provide such information, which can bolster oversight, improve trust between multiple actors and reduce inefficiencies. The following critical improvements are recommended:

   a. The establishment of a functioning cadaster and contract management system will enable the authorities to produce timely and regular information on the petroleum sector and decrease the cost of compliance with governance standards such as the Extractives Industry Transparency Initiative (EITI).

   b. A comprehensive website for the MPE would provide a first point of contact between...
the Administration and its stakeholders (investors, potential investors, other Ministries, financial institutions, and the citizens at large). Such website should provide basic information including the mission and organization of the MPE, applicable laws and regulations, acreage under contract and open, upcoming offerings, basic geological and geophysical information, and latest news.

c. The petroleum sector disclosure policy, the broad principles of which were announced in April 2018 in a communiqué issued by the Minister of Petroleum and Energy (no. 0482/PR/PM/MPE/HCN/CSTP/18) has yet to be published. Adoption and dissemination of such policy are also a requirement under the 2016 EITI standard as well as a trigger for the second budget support operations negotiated with the World Bank. Confidentiality provisions in existing contracts and disclosure obligations under the 2016 public sector law on transparency and EITI should be aligned.

3. Regular audits of petroleum companies investing in Chad’s petroleum sector are critical to guarding over the correct application of laws and contracts and can provide input for policy reforms. Tax audit and petroleum operations audits are important tools for effective sector administration. Audits help to identify departures from, and differences in interpretation of applicable laws. More importantly they provide information to gauge the efficiency of the fiscal regime, calibrate incentives, and identify leakages. Even under the best of circumstances there will be tax manipulation at the margin, which can result in large losses to the Treasury. Given limited resources, a risk assessment should guide what to audit, which ideally requires the design of a risk strategy for auditing the sector enterprises.

4.1 Governance and Policy Objectives for the Petroleum Sector

Governance can be defined as a set of traditions and institutions by which a country’s authority is exercised. Good governance requires both transparency of rules and requirements and accountability for respecting them.

While it is true that emerging oil and gas producers can learn from the experiences of more established jurisdictions, capacity constraints often inhibit their ability to implement best practice. Countries should aim for governance practices that consider the realities of their national context, seeking rapid results in a context of urgent need, and incremental improvement in governance processes over time through aspirational but achievable milestones. As capacity grows and greater revenues begin to flow, these producers will need to adjust their methods and institutions to promote standards of good governance that are appropriate to their new reality.

The first critical step for a government is to establish policy objectives and policy options right at the early stage of exploration, and to update such objectives and policies as the sector and its importance for the country’s economy evolves over time. Open consultations with concerned ministries, the private sector, and civil society have proven useful to identify policy priorities,
and to gather wide consensus and buy-in from stakeholders. Box 4.1 contains a checklist to help policy makers assess the adequacy of sector policy to the national context.

**Box 4.1 – Petroleum Sector Policy Adequacy Checklist**

- Elaborate a strategic vision for the sector
- Attract the most qualified investors for the long run
- Maximize economic returns to the state through licensing
- Earn and retain public trust and manage public expectations
- Increase local content and benefits to the broader economy
- Build capable national organizations to participate in and oversee the development of the resources
- Increase accountability
- Safeguard the environment


### 4.2 Transparency in the Petroleum Sector

The public’s right to information is enshrined in many national and international conventions, and an increasing number of countries have freedom of information laws stipulating that all government information is public unless disclosure is specifically prohibited by law. To be relevant and accessible, the information should be presented in plain language and in formats appropriate for multiple stakeholders. **Transparency is not an end in and of itself. Instead, it is a means to achieve accountability,** that is to ensure that the public sector, the private sector, citizens organizations, and other stakeholders are answerable for their actions. But transparency even with accountability **may not fully suffice if the rule of law is absent and sanctions are not a credible deterrent.**

Government and business can benefit from greater transparency. **Disclosure requirements create the incentive to maintain effective systems of information management, which lowers the cost of collecting and maintaining good data and improves their accuracy.** This is essential for efficient government operations: it informs management decisions, improves the quality of service provision to companies and citizens, and supports strong lines of accountability within government. On the other hand, companies face the challenge of managing public expectations in the areas in which they operate: effective transparency allows them to alleviate distrust and strengthen the “social license to operate.”

Roles and standards of behavior of the decision makers and relevant institutions should be clearly defined and understood by all stakeholders so that the public can monitor their action. **A set of values and ethical standards, reflective of society’s expectations for those in positions of authority and codified in laws and regulations, should guide decision-making.** The government functions better if clear lines of responsibility are drawn, and the executive and bodies such as an independent auditor can monitor and bring to account those institutions that
fail in their duties. Furthermore, to respond appropriately to the demand for better performance, government institutions should be able to make effective decisions.

The provision of information must be paired with the ability to use it to monitor and judge the actions of the government. Civil society (including diverse organizations and the media) has an important role in this regard. For these organizations to be effective, they must be independent of the government and open about sources of funding and the interests they represent. The government in turn must establish and protect the rights of civil society, including the media, and allow it to operate freely. An informed citizenry is also better able to engage with the government on the nation’s strategic direction. Given the transformational importance of resource governance, managing public expectations is critical. An effective communication strategy and relationship between government and civil society is essential in this regard.

The legislature is essential in its oversight of the executive. It can audit the activity of the government and other institutions, and act as a conduit for public concerns. For the legislature to perform this role it requires an enhanced capacity and understanding of extractive issues, as well as access to reliable advice on the nuances of extractive resource management.

4.2.1 The Extractive Industry Transparency Initiative

The Extractive Industries Transparency Initiative (EITI) is a multi-stakeholder initiative that aims to promote openness and accountability in the management of natural resources throughout the decision-making chain. Each country that implements the EITI has a multi-stakeholder group that publishes information from government and extractive companies throughout the decision-making chain. The process of creating these reports must meet a set of standards, which compliance is checked through a process of validation. EITI is most effective when government commitment is high, and proper resources and institutional arrangements are set up to ensure the open participation of all parties concerned, including civil society.

As of June 2016, 51 countries are implementing the EITI in accordance with the 2016 EITI Standard, the main requirements of which are listed in Annex 4.A. Chad is one of these countries, and it is currently going through a validation process to assess its compliance with the 2016 EITI Standards.

4.2.2 The Legal Framework for Transparency

Article 136 of Chad’s Constitution mandates the finance law to establish the resources and charges of the State in compliance with transparency rules and good governance.

Law no. 018/PR/2016 on transparency and good governance of the public administration (Transparency Law) in its Article 7 mandates that “contracts between the administration and public or private companies (in particular the natural resources companies and companies operating public service concessions) are clearly established and brought to the attention of the public. These principles apply both to the contract award procedure and to the text of the contract. These contracts are to be regularly controlled by the Court of Auditors and by the competent parliamentary committees. Government involvement in the private sector must be
carried out transparently and under non-discriminatory rules and procedures.” Furthermore, article 8 states that “any concession of use or exploitation of state goods as well as public-private partnerships are grounded on formal and explicit legal bases.”

These transparency principles are echoed in a communiqué issued by the Minister of Petroleum and Energy regarding the disclosure of petroleum contracts (no. 0482/PR/PM/MPE/HCN/CSTP/18). The Communiqué also refers to public policy on publication of petroleum sector data to be issued by means of a Government act, based on the principles established by the Law no. 018/PR/2016 and good practices of the EITI standards.

Since the Transparency Law already sets the legal framework for the disclosure of information, including those related to the petroleum sector, a point of clarification is the sanctioning of the disclosure policy announced in the Communiqué though an appropriate legal act.

It is important to note that existing contracts and the model PSC impose the principle of confidentiality as follows:

- Article 31 of the model PSC states that “the state preserves the confidentiality of this agreement as well as of all those documents, reports, statements, plans, data, samples and other information transmitted by the contractor under or in connection with the performance of this contract;” and

- Article 18.5 of the concession agreements stipulates that the concession, together with all information provided by one of the parties to the other in relation to the convention if they bear the word “confidential”, will be considered confidential until abandonment of the area to which the information relates.

A typical confidentiality clause in a PSC provides for a party to obtain prior consent of the other before it can disclose “confidential information” to a third party; this is generally defined to include all data, information and reports relating to petroleum operations. The clause will then provide for a list of permitted persons or entities to whom a party can disclose confidential information without the need to obtain prior consent. This varies between jurisdictions but usually includes affiliates, potential assignees, banks, consultants and employees, who generally must also undertake to maintain confidentiality of the information. In some countries, the standard is lower, with the contractor only required to use its best endeavors to ensure affiliates observe confidentiality (e.g. Sao Tome); others require formal confidentiality agreements to be signed between the party seeking to disclose and the permitted persons or entities (e.g. Libya). A confidentiality provision will generally contain a long-stop date, after which the confidentiality obligations will cease to exist. This may range from two years following termination of the contract (e.g. Cambodia, Equatorial Guinea) to ten years (e.g. Angola, Sudan). In many cases, the definition of “confidential information” does not include the contract itself; however, in several jurisdictions it is expressly stated that the contract itself is a confidential document (e.g. Angola, Cambodia, China, Equatorial Guinea, Vietnam and also Chad) and therefore it cannot be disclosed by a party without prior consent of the other party.

Confidential provisions in a contract can be waived by agreement of the relevant party. To the extent that the Transparency Code sets out the disclosure of certain information and contracts,
which were deemed as confidential under existing contracts, clarification is necessary with respect to the alignment of such contracts with existing laws.

4.2.3 The Policy and Procedures for the Allocation of Petroleum Rights

Governments in resource-rich countries should encourage efficient exploration and production operations and allocate rights transparently. This topic is discussed in Chapter 3.

4.2.4 The Petroleum Cadaster and Contract Management System

In the Communiqué the MPE has committed to publish all existing contracts and licenses, including all addenda, annexes, amendments or modifications thereto. New contracts will be published within 90 days after their approvals. MPE has also committed to ensuring that contracts and licenses are made available to the public in an easily accessible form, in searchable formats, on-line portals and through interconnected government systems. However, Chad does not have a working petroleum sector cadaster and contract management system (see Chapter 3 for details and future plans), nor has the MPE a full-fledged website. Hence, for now, some contracts have been published on the website of the Ministry of Finance and Budget and the EITI website (http://itie-tchad.org/ and https://eiti.org/chad),32

The organization of such information is however cumbersome: documents are not electronically searchable, and a list of existing contracts vis-à-vis published contracts is not readily accessible. The lack of a functioning cadaster and contract management system severely hampers the authorities’ ability to produce timely and regular information on the petroleum sector and increases its cost of compliance with governance standards such as the EITI. The scarcity and dispersion of public information regarding Chad’s oil sector is only partly attributable to the lack of a working petroleum cadaster and contract management system. Indeed, such information, in a simplified format, as well as information on blocks under license, blocks open to exploration, producing blocks, and associated companies could be easily accommodated in a dedicated website of the MPE, with link to other relevant institutions. Only the EITI has its own active website with the reports of this initiative. But according to the 2016 Report, the website lacks updated databases and recent statistics.33

The SHT has a working website (http://sht-tchad.com) that provides basic information on its organization and business ventures. This is an excellent starting point, which should be strengthened going forward, including by providing updated statistics of its operations, objectives and performance assessments. It is important to note that the lack of an integrated accounting and management information system severely limits the SHT’s ability to produce timely and reliable information (this is discussed in Chapter 3).

32 The MFB website also includes quarterly notes on the oil sector, comprising the evolution of the Brent price, exchange rates, oil production, oil exports, oil revenues, oil-backed loans and information on new regulations (laws, decrees and other regulations on the oil sector).
33 According to the EITI reconciliation report dated August 2018, other contracts can be consulted on the official site of the MFB and on other platforms and hard copies of contracts can be freely consulted at the library located at Chad EITI secretariat.
4.2.5 The Flow of Information About the Petroleum Sector

If the publication of the information is a crucial element of transparency in the relations with civil society and other actors, a good internal flow of information is critical within the government. In a country like Chad, the budgetary importance of oil sector is considerable, and its good management requires cooperation of many government departments and agencies, all with different responsibilities. With respect to the collection and oversight of oil revenue, the three principal actors are the MPE, the SHT, and the MFB:

- The MPE has the closest contacts with the oil companies. It oversees contract negotiations, the monitoring of all upstream and downstream activities, and the promotion of the sector;
- The SHT has the right to participate on the government’s behalf in PSCs, benefits from oil prepayments guaranteed by the Government, engages in quasi-fiscal spending from its net income, and collects and sells the Government’s oil. It is important that information on SHT’s participations be up-to-date; and
- The MFB is responsible for revenue streams derived from taxation, debts contracted or guaranteed by the government, and the forecasting and reporting of all government oil revenue in the context of budget preparation and execution.

The Government recognizes the problematic nature of the flow of oil sector information, not only vis-à-vis the public but also within the administration. Over the years it has taken several initiatives to facilitate information flow. For example, the Office for Monitoring Oil Revenues (Bureau de Suivi des Recettes Pétrolières) was created within the MFB. Unfortunately, it was never truly operational, and in 2014 it was replaced by a Unit for Collecting and Centralizing Revenues from the Extractive Sector (“Cellule de Collecte et de Centralization des Recettes du Secteur Extractif”) in the Treasury department of the MFB. This unit was created at the recommendation of the 2012 EITI report and proved to be very useful in collecting information for the 2013 EITI report.

In 2015 the Government created an Inter-Ministerial Committee in Charge of Monitoring Petroleum Revenues (Comité inter-ministériel chargé du suivi des recettes pétrolières, established by the Arrêté 3418/PR/PM/2015). As a key reform, this Committee became a structural benchmark under the ECF-supported program for June 2015. Composed of representatives of the MPE, the MFB, the SHT, the Collège, and the EITI, the Committee was tasked with consolidating and conveying all information related to oil revenue. At its first meeting, in July 2015, it set an ambitious agenda for its Technical Committee (Comité Technique) consisting of: identifying all oil revenue flows, following up the various ongoing oil sector litigations, getting a good grasp of the second Glencore loan and its accounting, exploiting the available company audit reports, and preparing proposals for a new petroleum revenue management system. At the same time, the Government decided to publish more detailed oil sector information. In the first instance that would be included in the quarterly budget execution reports to be published on the MFB website (structural benchmark for September 2015). Following that, the Inter-Ministerial Committee would start the regular publication of oil sector information such as production
volumes, shipments, Doba discount, individual revenue flows, and the SHT financial flows. However, progress in this area has been uneven. Although quarterly report on the oil sector are published on the website of the MEF, the Inter-Ministerial Committee rarely meets.

As a development of the Inter-Ministerial Committee in Charge of Monitoring Petroleum Revenues, the Arrêté Conjoint no. 69/PR/PM/MPECPER/MFB/2017, of the MPE and the Ministère des Finances et du Budget from September 29, 2017, creates the “Cellule des Études et du Suivi de la Gestion des Revenus Pétroliers”, made up of a Pilot Committee and a Technical Committee. This new “Cellule” substitutes the previous “Équipe Technique de Suivi des Ressources Pétroliers”, created by the Arrêté Conjoint no. 106/PR/PM/MFB/MPE/2016 of September 14, 2016 (also a trigger under the first World Bank’s Development Policy Operation). This “Cellule” is in charge of the follow up of all the information related to the production, oil revenues, and reimbursements, and other key information about the oil sector revenues to prepare the budget, the follow-up of revenues, the analysis of the performance of the current mechanism for the management of such revenues, and the preparation of a new management mechanism addressed to support the budgetary policy, the allocation of resources to support priority programs, and the macroeconomic stability. To date though no progress appears to have been made with regard to the reform of the revenue management mechanism and even this new Cellule rarely meets.

4.2.5.1 Recommendations form the EITI Implementation Reports

Chad’s 2016 EITI report, issued in August 2018, is available on the internet (www.eiti.org). It covers the hydrocarbons as well as the mining sector, even though the latter is mainly informal. The report’s principal aim is to identify any significant discrepancies among payments made by oil companies to the State and payment declared by the State as being received. The 2016 report as well as previous reports include various remarks and recommendations. These are summarized in Table 4.1.

**Table 4.1 – Findings of EITI Reports, and Implementation Status**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment of petroleum contracts with confidentiality provisions</td>
<td>The confidentiality provisions contained in existing contracts should be aligned to the requirements of the Transparency Law</td>
</tr>
<tr>
<td>Compliance from declaring entities with the instructions for the preparation of the EITI declaration forms</td>
<td>Awareness activities should be carried out to ensure data collection and compliance with EITI standards</td>
</tr>
<tr>
<td>Declaration of Real Property Information</td>
<td>A study on the regulatory requirements for the disclosure of real property information in Chad would be necessary to help the EITI National High Committee to establish a definition of real property adequate to Chad’s circumstances, and procedures to collect this information for EITI reporting purposes.</td>
</tr>
<tr>
<td>Insertion of the permit application date in the petroleum cadaster</td>
<td>All the information required by EITI standard, including the permit application date, should be part of a petroleum cadaster</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Measures adopted for improvement</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Creation of a database for the Secretariat of EITI</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Need of recent statistics to properly follow up research and exploitation operations, as well as the oil production</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Publication of contracts</td>
<td>Several executed contracts have been published and the Government has committed to a timeline for publication, but full publication still needs to be completed.</td>
</tr>
<tr>
<td>Improvement of the follow-up on status of extractive sector revenues</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Follow-up of fluxes directly collected by the MPE</td>
<td>No significative advancement, apart from appointment of an accountant within MPE</td>
</tr>
<tr>
<td>Establishment of an oil and mining cadaster</td>
<td>Commitment to put in place the cadaster by end 2019. No significative advancement otherwise34</td>
</tr>
<tr>
<td>Provision of supporting documents for each payment</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Gaps and inconsistencies noted in the review of the pre-financing contract</td>
<td>No advancement</td>
</tr>
<tr>
<td>Transfers to producing regions</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Reliability and completeness of data collected by the Cellule de Collecte et de Centralization des Recettes du Secteur Minier and the involvement of financial authorities in the collection</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Delay in implementing the road map on real property</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Publication of information on SHT’s debts</td>
<td>No significative advancement</td>
</tr>
<tr>
<td>Lack of employment statistics</td>
<td>No significative advancement</td>
</tr>
</tbody>
</table>

In addition, the following administrative improvements were recommended following the completion of a technical assistance program financed by the Extractives Global Program Support Multi-donor Trust Fund managed by the Energy and Extractives Global Practice of the World Bank:

a. **Develop a fully costed work plan for the period 2018-2020 and strengthen the capacity of the EITI’s National Secretariat.** The objective of this activity will be to ensure more accurate cost estimates, timely planning of activities necessary to address critical gaps

34 The Chad Domestic Revenue Mobilization and Management Project, approved in July 2018 by the World Bank Board of Directors aims to support the design and establishment of a petroleum sector georeferenced cadaster and contract management system (see Chapter 4, Annex 4.B).
vis-à-vis the new EITI Standard, and timely follow up of implementation. This activity would include providing training to the national coordinator and staff at the secretariat, and help develop standard operating procedures for budgeting and monitoring of results and guidelines for future appointment of staff at the National Secretariat;

b. **Improve stakeholders’ engagement and internal governance of the EITI process.** This activity would review the current functioning of the National High Committee, and propose improvements to clarify its mandate and structure, considering the recommendation of the validation report and the experience of the most successful implementing countries. This activity will include the preparation of terms of reference for each position on the National High Committee, and the clarification of nomination criteria and compensation policies;

c. **Prepare the EITI communication and outreach strategy.** This activity would strengthen the National Secretariat communication and outreach capacity, through the identification of critical messages; the preparation of related outreach material; and their publication on the EITI website and relevant communication channels.

An important area for improvement also relates to the active involvement and level of representation of civil society. Transparency is achieved with proper and wide consultation of the civil society, which in Chad requires: (i) broadening the current civil society representation (number of members and scope of the representation) to reflect the societal diversity, and (ii) establishing an appropriate regulatory framework to guarantee, among other, that the different stakeholders have the right to appoint their representatives, they are independent in the exercise of their functions, and have the right to negotiate with other members of the civil society or other sector’s stakeholders to adopt common approaches or positions when they consider it necessary.

**4.2.6 Accountability**

Where the government is publicly accountable along with the private sector, resource wealth managed on behalf of citizens can lead to sustained prosperity. Ongoing scrutiny of behavior provides a strong deterrent against corruption and an incentive for improved performance. Furthermore, a national strategy of managing resource wealth will remain effective into the future only if this scrutiny ties present and future governments to the objectives they set themselves. Without real transparency, opacity in the extractive sector is perpetuated and so are the corruption risks, which can constitute a major obstacle to doing business in a country.

Chad ranks 24th out of 31 Sub-Saharan African countries assessed in the 2017 Resource Governance Index. This overall low score is attributed to a failing enabling environment. For the oil and gas sector the main challenges are identified as discretionary licensing procedures, low local impact, and the lack of emphasis on environmental protection and mitigation.

Chad also ranks 165 out of 180 countries assessed by the Transparency International Index Chad, and scores only 20 with regard to the perceived level of public sector corruption (on the scale from 0 – highly corrupt – to 100 – no corruption).
On the 2017 Index Report of African Governance of the Mo Ibrahim Foundation Chad has showed some improvement against the previous year, although Chad stays among few countries that present “warning signs”, displaying a negative trend in the last five years that may threaten the achievement of the past decade.

On the other hand, Chad has an anti-corruption legislation (Law no. 004/PR/2000) on economic crimes which criminalizes active and passive bribery, embezzlement and influence peddling, among others. The law imposes heavy sanctions and penalties. Money laundering is also criminalized in Chad, although some reports point to shortcomings in the legal framework and a general lack of implementation of the anti-money laundering regulations. Public officials are subject to financial disclosure laws and required to declare their assets, but the laws do not specify any sanction for noncompliance and remain largely unenforced. There are no laws providing for the protection of public and private whistleblowers. Also, the law does not provide for public access to government information.

In terms of its international commitment, Chad has not ratified the UN Convention against Corruption but is a signatory to the African Union Convention on Preventing and Combating Corruption.

Various institutions are involved in anti-corruption activities in Chad, some with overlapping mandates. They all generally face major resource and capacity constraints which hamper their capacity to fulfil their mandate. The government has taken legal and institutional steps to fight corruption and launch anti-corruption campaigns in recent years, resulting in the dismissal and arrest of several high-level officials. However, many external observers perceive these measures as principally motivated by internal politics more than policy principles.

4.2.7 Enforcement

Along with the means to monitor actions, a government must commit to enforcing penalties, which requires political will and capacity to punish offenders. A credible and independent judiciary is paramount in this regard. Without the credible deterrent of judicial action, the potential for corrupt or criminal activity increases.

4.2.8 Audit as Accountability Tool

Notwithstanding the important role played by EITI, its mandate does not cover whether the companies are paying what they should according to the contracts, laws and regulations. For that the Government must carry out regular audits of companies’ tax declarations, as well as operations and joint accounts audits. Even under the best of set of law and regulation, difference of interpretation or tax gaming will always occur if little to no oversight is exercised by the competent authorities. A risk assessment should guide what to audit, which ideally requires the design of a risk strategy for auditing the sector enterprises.

A comprehensive integrity system requires multiple types of audits, including:
• **Physical audit.** This covers the volume and quality of production. Oil companies should be subject to clearly defined obligations to measure and record physical production, and government agencies should oversee their performance with respect to those obligations.

• **Price audit.** This involves the audit of production valuation based on benchmark prices.

• **Cost audit.** This type of audit is concerned with ascertaining the accuracy of the cost information provided by companies: excessive costs lead to understatement of profits. Special attention should be paid to transfer pricing practices as they may lead to profit shifting to lower-tax jurisdiction.

• **Compliance audit.** Once production, prices and costs have been verified, the tax audit can proceed with verifying that all pertinent tax laws and regulations, and specific contract provisions, have been complied with in making the tax declaration.

Chad Government has used the services of an international company to audit their oil companies and the refinery, but according to information provided by the MPE, the last operations audit dates back from 2011. The MFB carries out annual tax inspection of companies holding concession agreements.

**Outsourcing of tax audits may be useful when capacity constraints prevent the full and effective utilization of all audit rights.** Developing country revenue administrations find it hard to train and retain the necessary staff and audit firms with an international reputation can be a good match for the specialized staff of the oil companies. They may even have experience with the same company in other countries. Moreover, they have access to the comparator data needed to benchmark costs in a cost audit. With appropriate terms of reference, outsourcing can also assist with capacity development. However, a country should invest in the development of in-house audit capacity.

**State-owned enterprises, such as the SHT, should also be regularly audited.** The SHT is a major player within the sector, and as an oil company the SHT is subject to the provisions of the Hydrocarbons Law regarding the production of financial statements. In addition, SHT’s by-laws oblige it to produce annual financial statements, within six months after the end of the year, and in line with internationally accepted accounting principles. Since the SHT is branching out to various core and non-core activities, its financial statements should be compiled on a consolidated basis. Under art. 28 of its by-laws, the SHT must submit its financial statements to an internal auditor approved by the “Communauté Économique et Monétaire de l’Afrique Centrale” (CEMAC), and the Government may nominate an external auditor. This external auditor is the “Commissaire aux Comptes” that in the case of the SHT is an alien, from Cameroon. Finally, the newly created Court of Auditors has a responsibility for the proper auditing of public enterprises.

The SHT is responsible for the marketing of the government’s oil, and should be regularly audited. Currently the government receives two thirds of its oil revenue in kind. According to its marketing contract, SHT must send the MPE an explanatory note (Note de calcul) immediately after each shipment. And every month it must send a detailed report to the MPE and the MFB justifying the prices and other terms and conditions of the sale.
The system of integrity assurances should be completed with an audit of the revenue administration itself. Such an audit should not re-audit the oil companies’ tax returns. Rather it should involve an examination of the revenue administration’s audit systems and include a selective review of its audit papers. Topics to be covered could include the distribution of responsibilities and accountability over different agencies, and the audit strategy being pursued. The recently approved Domestic Revenue Mobilization and Management Project aims to support system integrity and risk audit processes.

4.2.9 Petroleum Contract Modeling as Transparency Tool

Extractive industries companies use contract modeling extensively to support the negotiation process and to evaluate the performance of their projects. A model combines in mathematical form the parameters that together make up the oil fiscal regime—e.g. tax rates, profit oil splits, and amortization schedules—with project specific information—costs and production—with economic assumptions—e.g. prices, inflation, interest and discount rates—and with financing assumptions. Companies would typically be interested in profitability indicators, and governments in measures of “government take”. The most stable component of a model is often the fiscal regime; all other variables are subject to great uncertainty, and, therefore, model results must be taken as indicative.

Different types of models support different needs: they can be used over the long, medium and short term, and for individual projects or the whole sector. A long-term projection could forecast the revenues of a single project over its projected life or forecast in the aggregate the revenues from all existing projects over a certain period. A single project forecast can be used to evaluate the fiscal take of a project proposed by a company, or to simulate the effect of changes to the fiscal regime the government may be considering, for instance by comparing with regimes in other countries. A life-cycle model will show what type of revenues (e.g. royalty and income tax) will accrue at what stage of the project, which is a useful piece of information for managing popular expectations. A long-term forecast can usefully inform a government’s strategic economic planning. Medium-term revenue forecasts are most useful for budget preparation; they should be detailed and updated regularly. Finally, short-term forecasting, on a monthly or quarterly basis, is essential for informing the government’s cash management and spending programming.

Models can also be used retrospectively. For instance, a government may want to compare how a project has fared relative to what the company expected at the time it submitted its feasibility study. This would shed light on how much better or worse companies did than their own projections because of unforeseen circumstances. Finally, a potentially very lucrative application is for a resource revenue administration to calculate how much revenue should have been received from each ongoing project—given actual production, costs, prices, etc. A comparison of the model results with actual collections would help focus audit efforts.

To remain up-to-date a model must be fed continuously with new information. Companies’ work plans and annual budgets, both the provisional and definitive ones are a prime source of information. Equally critical are the companies’ monthly reports. For long-term forecasts it is
important to have company reports on remaining reserves, and the investments and operating costs required to produce them. This type of information is regularly provided by companies to the MPE as part of their contractual and legal obligations. The revenue forecasters should also receive the companies’ quarterly tax submissions, including details of the calculations of the fiscal flows, and the deductions for amortization and debt. According to the International Monetary Fund (IMF), tax submissions in Chad do not contain this level of detail.

The MFB currently uses a simplified sector level model for budget purposes. However, the model was developed some time ago and only partially reflects producing fields and changes in fiscal terms. There is great scope for improvement of the current petroleum revenue model. The recently approved Domestic Revenue Mobilization and Management Project will support the establishment of an updated petroleum revenue model, and procedures for its maintenance and regular utilization.

### 4.3 Feedback from Stakeholders’ Consultation

The Stakeholders’ consultation revealed substantially different perception between public and private sector actors about the legal requirement for transparency and audit effectiveness. The parties agreed on the importance of regular audits (Table 4.2). In particular:

a. The private sector marked its accord to the disclosure of petroleum contracts if mandated by law or international standards to which the government has committed. The private sector is concerned by the quality of audit firms retained by the government, which results in burdensome and inappropriate audit processes, lack of concrete recommendations/guidance to address agreed gaps, and opportunistic behavior.

b. The MPE expressed concerns over the potential negative economic impact of contract disclosure. Nonetheless, all contracts are available for consultation in paper copy at the EITI National Secretariat, and a geo-referenced cadaster is envisaged with financing from the World Bank’s DRMM project. The MPE recognizes the importance of regular audits of oil company’s operations. However, lack of funding is lamented as the principle hindrance.

Based on the feedback received, this report urges the authorities to: i) formulate and publish the petroleum sector policy; ii) formulate and adopt the disclosure policy on petroleum contracts mandating their publication in line with the broad principles announced in the Communique No. 0482/PR/PM/MPE/HCN/CSTP/18; iii) expedite the establishment of the petroleum sector geo-referenced cadaster and the appropriate staffing and funding of its functions; and iv) ensure that regular audits of petroleum operations are carried out by audit firms with proven experience in the petroleum sector. The MPE could also consider establishing a dedicated website as its window to the public and investors.
### Table 4.2 – Summary of Stakeholders’ Feedback

<table>
<thead>
<tr>
<th>Key takeaways</th>
<th>MPE</th>
<th>Chadian Association of Petroleum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good governance with clear and well-communicated objectives should inform the petroleum sector and its role in the economy.</strong></td>
<td>The need for a sector policy is not felt as a factor that would serve to address the current constraints of the MPE or its ability to oversee sector development. The MPE is open to consider the preparation of a sector policy, noting however that lack of funding would need to be addressed.</td>
<td>The lack of clear and publicly shared vision for the development of the petroleum sector and its role in the economy.</td>
</tr>
<tr>
<td><strong>A strong legal framework is in place to support transparency in public sector administration and in the petroleum sector in general.</strong></td>
<td>The MPE recognizes the need for improving the management of blocks and titles through the establishment of a geo-referenced cadaster. Regarding the disclosure of contracts, there is a concern that this could drive fiscal terms to the bottom as investors would tend to offer the lowest fiscal terms known to be in place irrespective of a block’s special features. An additional concern relates to the confidentiality provision in existing contracts, and perceived industry reluctance to disclose.</td>
<td>In October 2018 the Association of Petroleum Operators expressed the industry’s official position on contract auditing companies so far appointed by the government are not specialized in the petroleum sector.</td>
</tr>
<tr>
<td><strong>Regular audits of petroleum companies investing in Chad’s petroleum sector are critical to guarding then of laws and contracts and can provide the input for policy reforms.</strong></td>
<td>The MPE confirmed that PSCs contain the obligation from investors to provide funding earmarked for the payment of audits. This funding is used to fund the audit of PSCs. Concession agreements do not have the same funding mechanism and have not been audited in the past 10 years. The MPE would welcome funding from donors, in addition to that made available under the recently approved DRMM project.</td>
<td>The Association noted that auditing companies so far appointed by the government are not specialized in the petroleum sector.</td>
</tr>
<tr>
<td>Operators</td>
<td>contribution to the economy creates uncertainty for investors and prevents the development of investment synergy.</td>
<td>disclosure. If publication is required by law (Law No. 018/PR/2016) or under international standards of transparency to which the government has adhered, a contract should be made public. The Association noted that many of its members implement EITI in other countries.</td>
</tr>
</tbody>
</table>

Below are the main requirements of the 2016 EITI Standard.

1. **Oversight by the multi-stakeholder group.** This requirement relates to effective multi-stakeholder oversight including a functioning multi-stakeholder group which involves the government, companies, and the full, independent, active and effective participation of civil society. The key requirements related to multi-stakeholder oversight include: (1.1) government engagement; (1.2) industry engagement; (1.3) civil society engagement; (1.4) the establishment and functioning of a multi-stakeholder group; and (1.5) an agreed work plan with clear objectives for EITI implementation, and a timetable that is aligned with the deadlines established by the EITI Board.

2. **Legal and institutional framework, including allocation of contracts and licenses.** This requirement is about disclosures of information relating to the rules for how the extractive sector is managed, enabling stakeholders to understand the laws and procedures for the award of exploration and production rights, the legal, regulatory and contractual framework that apply to the extractive sector, and the institutional responsibilities of the State in managing the sector. This requirement includes: (2.1) legal framework and fiscal regime; (2.1) license allocations (2.3) register of licenses; (2.4) contracts; (2.5) beneficial ownership; and (2.6) state-participation in the extractive sector.

3. **Exploration and production.** This requirement relates to the transparency in exploration and production activities, which enables stakeholders to understand the potential of the sector, and includes: (3.1) information about exploration activities; (3.2) production data; and (3.3) export data.

4. **Revenue collection.** An understanding of company payments and government revenues can inform public debate about the governance of the extractive industries. This requirement is on a comprehensive reconciliation of company payments and government revenues from the extractive industries and includes: (4.1) comprehensive disclosure of taxes and revenues; (4.2) sale of the state’s share of production or other revenues collected in kind; (4.3) Infrastructure provisions and barter arrangements; (4.4) transportation revenues; (4.5) SOE transactions; (4.6) subnational payments; (4.7) level of disaggregation; (4.8) data timeliness; and (4.9) data quality.

5. **Revenue allocations.** Disclosures of information related to revenue allocations, enabling stakeholders to understand how revenues are recorded in the national and where applicable, subnational budgets. This requirement includes: (5.1) distribution of revenues; (5.2) subnational transfers; and (5.3) revenue management and expenditures.

6. **Social and economic spending.** This requirement relates to social and economic spending, helping stakeholders to assess whether the extractive sector is leading to the desirable social and economic impacts and outcomes, and includes: (6.1) social expenditures by companies;
(6.2) SOE quasi-fiscal expenditures; and (6.3) an overview of the contribution of the extractive sector to the economy.

7. **Outcomes and impact.** Regular disclosure of extractive industry data is of little practical use without public awareness, understanding of what the figures mean, and public debate about how resource revenues can be used effectively. This requirement seeks to ensure that stakeholders are engaged in dialogue about natural resource revenue management. EITI Reports lead to the fulfilment of the EITI Principles by contributing to wider public debate. It is also vital that lessons learnt during implementation are acted upon, that discrepancies identified in EITI Reports are explained and, if necessary, addressed, and that EITI implementation is on a stable, sustainable footing.

8. **Compliance and deadlines for implementing countries.** This requirement outlines the timeframes established by the EITI Board for publication of EITI Reports (8.2), annual progress reports (8.4) and Validation (8.3). It outlines the consequences of non-compliance with the deadlines and the requirements for EITI implementation. It also explains the possibility and criteria for countries to apply for adapted implementation (8.1) and extensions (8.5).
5. Overall Assessment and Priority Areas

This chapter builds on the findings of all preceding chapters and contains an overall assessment of the approach that the Republic of Chad has adopted or plans to adopt to enhance the benefits generated by the exploitation of its petroleum resources, and to manage the economic and social impact of such exploitation in a sustainable and equitable manner.

The petroleum sector value chain approach guided the analysis contained in this chapter. This methodology results in a guidepost matrix that depicts the existing extractive industries management system. The matrix (and its underlying analysis) can be used as a tool to identify potential vulnerabilities to the extractive industries management system, and to help prioritize potential areas of focus as well as in the self-evaluation of progress. It may also facilitate discussions with different stakeholders on their respective roles and responsibilities at different stages of the value chain.

Section 5.1 summarizes the assessment’s principal findings and recommendations. The methodology that was applied to track and monitor the quality of the overall system for the management of extractive industries is described in Annex 5.A. Annex 5.B proposes a guidepost matrix summarizing the status of Chad’s petroleum sector management system; and Annex 5.C provides an overview of the status quo, donors’ support, and possible gaps.

5.1 Top Reform Priorities

This section organizes the analysis carried out in previous chapter along the extractives industry value chain and highlights areas where additional work and/or support would help the Government to develop and implement a comprehensive approach to the management of the country’s petroleum wealth. Annex 5.B provide an at-a-glance view of potential gaps compared to good international practice. A common trend that can be observed across all segments is the existence of adequate or workable reference frameworks (legal and institutional). Challenges arise at implementation stage for lack of of capacity and/or means. Furthermore, there appears to be a low focus on monitoring and evaluation across all links of the value chain.

Thematic priorities going forward are summarized below and prioritization is suggested in Annex 5B:

a. Defining and disseminating sector policies. Chad does not have a published sector policy. General policy principles are set out in the Petroleum Law that underscores the importance of optimizing petroleum recovery and the conservation of reservoirs, as well as the protection of the environment. The objectives of a sector ministry, and its internal organization, are greatly affected by the sector policy objectives. Hence clear goals expressed in a sector policy are important to devise institutional arrangements that work towards achieving them. A clear and broadly communicated sector policy also serves as
signal to the market to guide investors’ behavior. There is currently no indication that such policy is being considered, and existing donors’ programs do not appear to be vested in this area. This is suggested as a short-term priority, that is an activity that should be initiated prior to starting a program of reforms.

b. **Promoting the optimal development of petroleum resources.** Chad’s upstream industry is relatively immature. The country’s geology suggests that further discoveries should be possible. Current investors are either large corporations who control all the production in the country, or very small companies that appear undercapitalized and not aggressively pursuing activities on their blocks. Targeted licensing and promotional strategies are needed to foster further development of the sector and ensure acreage turnover and activity. These measures would complement existing technical assistance (Domestic Resource Mobilization and Management Project) for the establishment of a geo-referenced cadaster and petroleum data management system. This is considered a medium term-priority, that is activities that should be undertaken after adequate institutional capacity and clear legal framework are established.

c. **Harmonizing the system of laws, regulations and contracts.** While the Petroleum Law is broadly in line with good international practice, implementing regulations lack clarity and coherence, and there are several instances of conflict of provisions with the model PSC. The model PSC regulates aspects that are normally the object of regulations. Petroleum contracts appear to regulate the environmental matter of their own, leaving potential grey areas regarding the compatibility of such contractual provisions with environmental regulations, particularly since contracts refer to industry practice as the guiding principle for environmental management and protection. This is considered a short-term priority action.

d. **Strengthening institutions and institutional capacity.** The priorities in this area are to ensure that the authority and resources available to these entities are commensurate with their responsibilities. An Institutional Capacity Assessment (ICA) of the MPE and of other entities that intervene in the governance and oversight of the petroleum sector would shed lights on the strengths and weaknesses of such institutions and pave the way for targeted reforms. The ICA is considered a short-term priority action, which should be followed by targeted capacity building, and accompanied by performance matrices which complexity and transparency should grow overtime in line with the institutional capacity to deliver. The following areas for further work have also been identified:

- The clarification of the roles of each Directorate and Department of the MPE, the identification of primary and support role where internal or external cooperation is required, the establishment of performance and impact evaluation systems, targeted training, and the deployment of information technology to ensure connectivity and automation of tasks. These measures are currently outside the scope of existing donors’ assistance programs.

- Corporate governance reforms of the SHT aiming to support efficient and accountable decision-making, including in the long term a clear separation between
ownership function, supervision role of the Board of Directors, and business role of the management, the establishment of clear ownership policy and investment policy, and the strategic use of internal and external audit processes. These reforms would complement the benefits expected from investing in an integrated financial and management accounting system and carrying out joint-accounts audit for which financing is envisaged under the Domestic Resource Mobilization and Management Project.

- The principle of environmental protection and conservation is prominent in the Petroleum Law, which accordingly assigns an important role to the MEF. However, there is a certain lack of coherence regarding the approval authority of environmental documentation with respect to the role of the MPE and whether it should provide his advice or consent on EIS, abandonment plans, and the likes or should approve jointly with the MEF. Coherence between environmental regulations and the model PSC should also be ensured, including on the modalities for the establishment of the special fund for the protection and conservation of the environment. The management and oversight of environmental impacts of petroleum operations is currently outside the scope of existing donors’ assistance programs.

e. **Administering and collecting taxes and royalty.** This is an area where major efficiency gains could be achieved. The priorities in this area are to ensure that audits of petroleum operations and companies are carried out on a regular basis, risk-based audit strategies are developed, and internal audit capacity is nurtured. Simplification of tax administration procedure is also suggested through the harmonization of contract and fiscal administration (common elements) into a unitary body, and increased use of information technology and standardized reporting requirements for companies. These measures are considered a short-term high priority and are currently outside the scope of existing donors’ assistance programs.

f. **Managing extractive industry revenues.** Chad needs to address multiple challenges in order to manage its extractive industry revenues, including: (i) ensuring that extractive resource revenues are transformed into other forms of reproducible and productive capital, in order to offset the depletion of the sub-soil assets and promote long-term growth; (ii) insulating the budget from fluctuating resource revenues and political pressures to increase spending above sustainable levels; and (iii) counteracting the negative effects that large flows of extractive industries revenues could have on the real exchange rate and on the prospects for economic diversification. In this regard, from a macroeconomic perspective, further work is needed to identify a sustainable fiscal path for Chad’s non-oil primary deficit, based on projections of the net present value of government revenues from extractive industries. In this respect, the assessment of law no. 002/PR/PM/2016 on the management of petroleum revenue is being undertaken by the MFB with the view to propose an integrated revenue management mechanism with stabilization purposes. Technical assistance is being provided to the MFB for setting up of a long term macro-economic model to help define the Government’s fiscal policy stance. Funding is also available under the Domestic Revenue Mobilization and Management Project to support the establishment of the relevant legal and regulatory framework.
g. Setting the basis for sustainable development. Chad does not have a specific policy for leveraging the petroleum sector investments for in-country value creation and economic diversification. Basic provisions in petroleum contracts require companies to "consider" local recruitment, establishing training programs, and give priority to Chadian companies for service and construction contracts, subject to qualifications with respect to industry standards, price, quantity, timing, delivery and payment conditions. The SHT is tasked with the promotion of local enterprises. Analytical work is required to assess the current and future potential for in-country value creation in connection with petroleum activities, including potential for oil-led green growth. This is considered a medium-term priority.

While reforms and measures identified under points b and f above are to some extent already addressed in existing technical assistance programs of the World Bank, there is currently no indication that other reforms and measures identified above are being considered by the Government, and existing and planned donors’ programs do not appear to be vested in these areas.
Annex 5.A – Methodology

This methodology used in this report is based on the extractive industry value chain analysis that was first described by E. Mayorga Alba in a paper on the Extractive Industry Value Chain, published by the World Bank in March 2009. The paper, which is available for download at https://openknowledge.worldbank.org/handle/10986/18400, contains the following schematic representation of the extractive industry value chain.

The paper identified a set of key elements that constitute each stage of the sector value chain. For example, in granting access to resources, adequate promotion, competitive procedures, a sound regulatory and an equitable fiscal framework will help maximize revenues to the treasury while ensuring the sustainable development of the sector. To use treasury resources efficiently, public financial management and procurement systems need to be robust. These critical elements are described below, and are listed on the left-hand column of the matrix in Annex 5.B which provides a visual representation of the assessment of Chad’s petroleum sector management system at each stage of the value chain.

The assessment involved several steps:

1. the review of publicly available document and information pertaining to the key elements of each value chain chevron (e.g. review of prospectivity information, legal and contractual arrangements, and institutional arrangements), supplemented by targeted interviews;
2. The identification of implementation practice;
3. The comparison of legal, regulatory, contractual, and institutional frameworks and their practical application with standard of good practice (goalposts); and
4. Stakeholders’ consultation to identify difference in perception among various constituencies, validate the analysts’ interpretation of publicly available data, and refine the conclusion of the desk review.

A certain element of subjectivity is inevitable in this type of analysis that necessarily require a certain level of knowledge of the sector and of the country being analyzed.

The Critical Elements of the Extractive Industry Value Chain:

Access to resources

Before EI operations begin on any project, the government must grant access to mineral and petroleum resources through issuing mining licenses or oil contracts to qualified companies. The companies obtain the right for exploration of the resources and to survey a specific area to
determine its production potential and the process of extraction. Efficient and effective award policies tend to exhibit the following elements:

- Adequate knowledge of the country’s geological potential to promote mineral and petroleum resources.
- Transparent and non-discretionary procedures for the award of exploration, development and production rights;
- Clear legal, regulatory, and contractual framework; and
- Well defined institutional responsibilities.

**Monitoring of Operations**

To ensure that the operations of private and state-owned oil, gas, and mining companies are carried out efficiently and in the respect of public interest, adequate regulation should be in place. A well-defined regulatory framework, coupled with the ability to enforce it, will support the goals of sustainable development. Two key steps for improving the efficiency and effectiveness of regulation and monitoring of Extractive Industry (EI) projects are:

- To ensure that responsibilities of the various government entities tasked with the monitoring of regulatory compliance are clearly defined, and that the authority and available resources of these entities are commensurate with their responsibilities;
- To build adequate capacity for the monitoring of regulatory compliance; and
- Environmental remediation, including mining site rehabilitation and the management of environmental hazards

**Revenue collection**

The taxes and royalties generated by EI projects will potentially provide the government with a financial base to support sustainable development projects from infrastructure to education to social services. Key steps to ensure a transparent and efficient system of EI revenue collection are:

- Adequate administrative and audit capacity of the relevant institutions, and
- Clear and transparent accounting and reporting standards and procedures.

**Revenue management and allocation:**

The wealth arising from oil and mining operations must be distributed and managed transparently otherwise it can easily end up funding corrupt practices, promoting social and economic inequalities, and generating intra-state or even inter-state conflicts. Key steps in managing and allocating revenues are:

- Appropriate macroeconomic policy responses to mitigate any negative impact from exchange rate appreciation
- Savings decisions to facilitate: (i) public expenditure smoothing in light of price volatility and (ii) asset accumulation in light of the finite nature of oil, gas and mineral resources, and
• Public expenditure allocation nested within a medium-term expenditure framework and aligned with a country development strategy, which ensures adequate scrutiny/appraisal of public investment choices and provides for sound revenue sharing policies.

**Sustainable development:**

Once the EI contracts have been awarded, exploration has been completed, the operations have been well monitored and regulated, the EI revenue has been collected and soundly distributed and managed, governments should have excess capital at their disposal to pursue and implement sustainable development projects. The key steps to ensure efficient and well-designed implementation of sustainable development policies are:

• Strong public financial management and procurement systems
• Public investment decisions adequately capture potential benefits of EI expansion/diversification
• Adequate policies to facilitate the development of local enterprises for economic resilience.

In addition, specific factors help to determine the strength of each element in the overall system for the management of extractive industries. An element is a strong link when the following three requisites are in place: (i) a clearly defined operational framework that is consistent with good practices; (ii) sound implementation; and (iii) effective systems for accountability. Regarding the operational framework, key criteria include the legal and regulatory framework and institutional structure. For effective implementation, there must be adequate human resources (HR) capacity, and sustainable and coordinated government institutions with adequate facilities, equipment and information systems. In addition, for sustainability, HR policies and procedures must support the recruitment and retention of quality staff. Effective checks and balances provide for a sound accountability framework for the management of extractive industries. Access to relevant information is a prerequisite for effective monitoring. Government structures should include appropriate internal monitoring mechanisms. Parliament plays an important role in the accountability system. In many instances, civil society can also take on important monitoring functions. In all cases, political determination, definitions of roles, an enabling environment, and capacity are required for monitoring agencies to carry out oversight functions. These criteria are summarize in Table 5.A.1, and are listed in the top row of the matrix in Annex 5.B.

**Table 5.A.1 – Assessment categories**

<table>
<thead>
<tr>
<th>Operational Framework</th>
<th>Implementation</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Laws, regulations and operational manuals</td>
<td>• Human resource policies and practices</td>
<td>• Information availability</td>
</tr>
<tr>
<td>• Institutional structure</td>
<td>• Capacity</td>
<td>• Monitoring</td>
</tr>
<tr>
<td></td>
<td>• Facilities, equipment and information systems</td>
<td></td>
</tr>
</tbody>
</table>
Finally, a coding system is deployed to quickly summarize the overall status of each criterion for each element. Items that are fully established in accord with good practice are coded green. Items that could be further strengthened but where efforts are ongoing are coded orange. Items with serious deficiencies and/or where more urgent actions are needed are coded red.
Annex 5.B – Guideposts

Evaluation Criteria and Scoring System:
Along every step of the extractive industries value chain, sound management requires: (a) a clearly defined operating framework that is consistent with good practice; (b) sound implementation; and (c) effective systems for accountability. These requirements are summarized in seven broad criteria. This section describes the “evaluation” criteria and the general code for tracking progress.

<table>
<thead>
<tr>
<th>Operating Framework</th>
<th>Implementation</th>
<th>Accountability</th>
</tr>
</thead>
</table>
| • Laws, regulations, operating manuals  
• Institutional structure | • Human resource policies and practices to support institutional sustainability  
• Capacity  
• Facilities, equipment and information systems | • Information sharing  
• Monitoring |

1. Operating Framework. Effective management requires a clearly defined operating framework that is consistent with international good practices. This includes an appropriate legal and regulatory framework and the existence of an institutional structure.

1.1 Laws, regulations, operating manuals (where relevant) exist and are consistent with good practice:

- **Green:** Necessary laws, regulations and operating manuals exist and are in line with good practice.
- **Orange:** Law, regulations and/or manual could be strengthened, and/or main elements of legal framework are in place but aspects of regulations/manuals may be missing. There are ongoing efforts to fill gaps and/or strengthen weaknesses.
- **Red:** Serious deficiencies in or absence of key elements of the legal framework. Progress is ongoing to improve, but more urgent/further actions are critical or no ongoing plan.

1.2 Institutional responsibilities are clearly assigned, without overlap to an appropriate entity.

- **Green:** Institutional responsibilities are clearly assigned, without overlap to an appropriate entity.
- **Orange:** Some overlap of responsibilities, or assignment of responsibility may not be conducive to sound implementation/accountability. There are ongoing efforts to address shortcomings.
2. **Implementation.** Three critical elements for effective implementation are considered. First, Human Resources policies and procedures need to be in place to support sustainable, high quality staffing needed for implementation. Second, staff must have adequate capacity. Third, facilities, equipment and information systems must be adequate to support implementation.

2.1 **HR policies** and practices in place to support merit-based recruitment and retention of qualified staff.

- **Green:** HR policies and practices in place to support merit-based recruitment and retention of qualified staff.
- **Orange:** HR policies and practices need strengthening, and actions are ongoing.
- **Red:** HR policies and practices are inadequate to support merit-based recruitment and retention of qualified staff. No actions ongoing to address issues and/or actions need to be accelerated.

2.2 **Capacity.** Adequate human resources capacity exists to carry out the relevant responsibilities.

- **Green:** There is adequate human resource capacity to carry out responsibilities.
- **Orange:** There is a program for capacity strengthening. The program is: (i) adequate; (ii) is adequate now but will require sustained attention; (iii) in need of strengthening.
- **Red:** Inadequate capacity and program for capacity strengthening inexistent or insufficient.

2.3 **Facilities, equipment and information systems** are adequate to support implementation.

- **Green:** There are adequate facilities, equipment and information systems to support implementation.
- **Orange:** There is a program for upgrading facilities, equipment and information systems. The program is: (i) adequate; (ii) is adequate at the moment but will require sustained attention; (iii) in need of strengthening.
- **Red:** There are deficiencies in facilities, equipment and information systems that seriously impede implementation. No actions ongoing to address deficit and/or actions need to be accelerated.

3. **Accountability.** Effective checks and balances provide for a sound accountability framework for the management of extractive industries. Access to relevant information is a prerequisite for effective monitoring. Government structures should include appropriate internal monitoring mechanisms. Parliament plays an important role in the accountability system. In addition, civil society can also play a role in important monitoring function. In
all cases, definitions of roles, an enabling environment, and capacity are required for monitoring agencies to carry out monitoring functions.

3.1 Information sharing. Clear policies exist on information availability, and rules for access. Presumption should be for wide sharing of information, unless a clear case is made otherwise.

- **Green:** Information is publicly accessible, or there are clear and appropriate policies for access.
- **Orange:** Information is available, but may not be easily available or presented in an accessible way. Rules for access may not be clear and transparent.
- **Red:** Information access is restricted.

3.2 Monitoring. Internal monitoring within government, Parliamentary oversight, and civil society engagement all play important roles in reinforcing accountability in the management of extractive industries.

- **Green:** Government monitoring, parliament oversight and civil society engagement appropriate for particular stage, with sufficient capacity for implementation.
- **Orange:** Some aspects of government monitoring, parliament oversight and/or and civil society engagement (appropriate for particular stage) missing, weak or with insufficient implementation capacity. Program in place to address issues.
- **Red:** Important aspects of government monitoring, parliament oversight and/or and civil society engagement (appropriate for particular stage) missing, weak or with insufficient implementation capacity. Insufficient or no program is in place to address issues.

*The next page contains a visual representation of the assessment of Chad’s petroleum sector management system.*
### Oil And Gas Value Chain: Key Policy, Institutional And Legal Arrangements

<table>
<thead>
<tr>
<th>Priority</th>
<th>Framework</th>
<th>Implementation</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laws, regulations, manuals</td>
<td>Institution</td>
<td>HR policy</td>
</tr>
<tr>
<td>1. <strong>Access to resources:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adequate knowledge of the country’s geological potential to promote the development of mineral resources.</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Clear Sector Policy and Strategy</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transparent and non-discretionary procedures for the promotion and award of petroleum rights</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adequate legal, regulatory and contractual framework</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adequate fiscal regime</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Well defined institutional responsibilities</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. <strong>Regulation and monitoring of operations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Definition of clear institutional responsibilities</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Capacity for the monitoring of regulatory compliance</td>
<td>M/H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Clear measures for environmental management and remediation, including site rehabilitation and the management of environmental hazards</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. <strong>Collection of taxes and royalties</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adequate administrative and audit capacity of the relevant institutions</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Clear and transparent accounting and reporting standards and procedures</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adequate procedures for the management and reporting of Government's EI revenue flows</td>
<td>M</td>
<td></td>
<td></td>
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<tr>
<td>4. <strong>Revenue distribution and management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Appropriate macroeconomic policy responses to mitigate any negative impact from exchange rate appreciation</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Savings decisions to facilitate: (i) public expenditure smoothing in light of price volatility and (ii) asset accumulation in light of the finite nature of oil, gas and mineral resources.</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Public expenditure allocations nested within a medium-term expenditure framework and aligned with a country development strategy that ensures adequate scrutiny/appraisal of public investment choices and provides for sound revenue sharing policies.</td>
<td>M/H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. <strong>Implementation of sustainable development policies and projects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strong public financial management and procurement systems</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Public investment decisions that adequately capture potential benefits of EI expansion/diversification</td>
<td>M/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adequate policies to facilitate the development of local enterprises for economic resilience</td>
<td>M/L</td>
<td></td>
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</tbody>
</table>
### Annex 5.C – Current Status, Donors’ Support, and Possible Gaps

<table>
<thead>
<tr>
<th>Oil And Gas Value Chain: Key Policy, Institutional And Legal Arrangements</th>
<th>Current Status</th>
<th>Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Access to resources:</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
| **1.1 Adequate knowledge of the country’s geological potential to promote the development of mineral resources.** | - Data from exploration, development and production activities are often retained by companies owing to the lack of a georeferenced cadaster and data management system. This severely limits the government’s ability to ensure the proper and optimal management of its petroleum resources (planning licensing strategies, produce timely and regular information on the petroleum sector);  
- The development and management of the georeferenced data base should be entrusted to a technical department such as the Exploration, Production and Transport Department, while the associated cadaster and contract management system should be entrusted to the Legal Affairs and Litigation Department. | WB (DRMM with respect to the design and establishment of a petroleum georeferenced cadaster and data management system) | Additional technical and financial support would help to ensure the proper design and roll out of information systems to support the effective use of the future georeferenced cadaster, as well as training of relevant MPE and SHT staff. |
| **1.2 Clear Sector Policy and Strategy** | Chad does not have a published sector policy. General policy principles are set out in the Petroleum Law 2006 that underscores the importance of optimizing petroleum recovery and the conservation of reservoirs, as well as the protection of the environment (article 2.2). | | Technical and financial assistance would help to support the design of and consultation over the sector policy by the MPE |
| **1.3 Transparent and non-discretionary procedures for the promotion and award of exploration, development, and production rights** | • There is no specific licensing regulation for award of petroleum rights, only very generic principles in the Petroleum Law and generic references in the Implementation Decree.  
• While the Petroleum Law identifies public tenders as the normal policy for the award of petroleum rights, it also empowers the Minister to derogate from such requirement at the Minister’s discretion.  
• Petroleum sector players currently include large corporations who control all the production in the country, and very small companies that appear undercapitalized and not aggressively pursuing activities on their blocks. | Technical and financial assistance would help to support the development of a licensing strategy and its implementation (this would include an independent audit of the resources and reserves, targeted licensing strategies to attract the most appropriate players; and procedures to accelerate acreage turnover and activity). |
| **1.4 Adequate Legal, Regulatory and Contractual framework** | • Petroleum Law, Regulations and Contracts need alignment (several instances of conflict of provisions);  
• The PSC regulates aspects that are usually addressed in the law or at a regulatory level.  
• Regulations lack clarity and coherence.  
• Clarification is needed on: a) the relative hierarchy of the Implementation Decree and the model PSC; and b) whether a signed PSC may derogate from the model PSC.  
• Clarification is needed on the way of application of the Petroleum Law’s transitional provisions, particularly about the stabilization provisions in existing contracts.  
• The definition of clear principles on environmental obligations and liabilities should be primarily established in the law and regulations, rather than in the contract.  
• Lack of cadaster and contract management system | WB (DRMM on petroleum cadaster and contract management system)  
Additional technical assistance and financing would help to support the review and harmonization of the petroleum legal and contractual framework, supported by training and the development of clear institutional procedures. |
| **1.5 Adequate fiscal regime** | • Chad’s share of benefits and profits is similar from concessions and PSCs and broadly in line with global averages.  
• The impact of the R-Factor and its structure in the PSCs should be examined. Small movements in profitability appear to have a disproportionate effect on Government Take | A study is suggested to stress test the current structure of the fiscal regime to changes in project and economic variables, with the objective to assess its propensity to gold-plating. |
as they adjust the R-Factor, possibly encouraging sub-optimal behavior by contractors.

- This requires additional analysis to understand fully the extent of the issue and means to address it if confirmed as a meaningful matter.

### 1.6 Well defined institutional responsibilities

- Within MPE the roles and objectives of each Directorate and Department are not clearly defined. Where internal or external (with other ministries) collaboration is necessary, primary and support roles should be identified.
- The resources that are necessary to carry out the organization’s mission should be identified and maintained over time.
- The MPE should ensure that its resources are used in an effective and efficient manner, and its ability to do so is monitored and visible.
- The National Commission, which is tasked to negotiate all upstream and downstream contracts, fails to represent important stakeholders such as the MEF and the Minister of Economy and Development Planning.
- Corporate governance mechanisms of the SHT should be strengthened to support effective and accountable decision-making.

### 2. Regulation and monitoring of operations

#### 2.1. Definition of clear institutional responsibilities

- Overlapping roles and unclear inter-ministerial coordination mechanisms (particularly with MEF and MFB) require clarification and improvement.
- Within the MPE, responsibilities and procedures for the monitoring of operations are not clearly defined/adequate to the task, including Directorate of General Inspection (DGI) vs Court of Auditors, and shared responsibilities among the DGI, the Exploration, Production and Transport Department, the Legal Affairs and Litigation Department, and limited to the financial and fiscal aspects, the Economic and Fiscal Studies Department.

**Technical and financial assistance** would help to ensure that sound organization principles inform the design of institutional arrangements. Activities would include: aligning the regulatory framework to reflect the roles of the various institutions; develop performance indicators and institutional performance objectives; strengthen the SHT corporate governance mechanisms; develop adequate websites for MPE and SHT.
| 2.2. Building capacity for the monitoring of regulatory compliance | • An institutional review of the MPE carried out by the French Petroleum Institute (IFP) in 2017 identified a lack of coherence between the structure of the MPE (later reorganized), and the capacity of its employees to fulfil their roles.  
• The lack of detailed terms of reference for each position was also identified as contributing factor to the overlap of responsibility across different job posts, and the difficulty in assessing skills. | WB (partially under the Petroleum Sector Capacity Building Grant) | Technical and financial support would help to support the development of detailed terms of reference for each position, further training, and develop standard monitoring and oversight procedures. |
| --- | --- | --- | --- |
| 5.2. Clear measures for environmental management and remediation, including site rehabilitation and the management of environmental hazards | • Very low capacity to assess and monitor environmental impacts.  
• The National Plan for Sustainable Development dealt largely with desertification and ignored potential petroleum developments.  
• The MEF had only recently been created, and the Environment Department was virtually devoid of staff and logistical support.  
• Coordination mechanisms between MEF and MPE, as well as the CTNSC | Technical and financial assistance would help to support the realization of a ICA of the MEF focusing on petroleum sector, clarify inter-agency coordination, and prepare guidelines for investors |

### 3. Collection of taxes and royalties

| 3.1 Adequate administrative and audit capacity of the relevant institutions | • Although the Government has the legal and contractual right to conduct financial audits on a routine basis and may request special audits of companies, such audits are not a common practice owing to lack of funding and in-house expertise.  
• The Cellule des Études et du Suivi de la Gestion des Revenus Pétroliers tasked with following the petroleum sector hardly ever meets, and in any case it is not involved at technical level in ensuring appropriate and timely reconciliation of revenue flow. | WB (partially under the DRMM, with financing of operations audits, joint accounts audits, and the collection of reference cost data; the development of risk audit procedures, and training under the Petroleum Sector Capacity Building Grant) | Technical and financial assistance would help to improve tax administration, including harmonization of contract and fiscal administration (common elements) into a unitary body; increased use of information technology and standardized reporting requirements for companies; development of risk audit strategies, improvement in audit capacity of MPE and MFB.  
Technical assistance should be preceded by a study on administration efficiency would provide input for addressing deficiency and bottlenecks. |
| 3.2 Clear and transparent accounting and reporting standards and procedures | • There is no reporting standard for petroleum companies: each company reports using its own standard.  
• The MFB uses a simplified revenue forecast model, principally for budget forecast purposes | WB (partially under the DRMM, with regard to the possible automation of input data acquisition from petroleum companies, the development of a petroleum revenue management model, and training of MFB officials in the use of such model) | Technical and financial assistance would help to support the development of standard reporting templates, information-based control systems, monitoring procedures and related institutional mechanisms. |

| 4. Revenue management and allocation |  |
| 4.1. Appropriate macroeconomic policy responses to mitigate any negative impact from exchange rate appreciation | • Law 2/2014 is a simple budget earmarking to channel petroleum revenue to a list of priority sectors and to support general government expenditure: no stabilization or saving function is envisaged;  
• A strategic investment fund was recently established. Its objectives and structure, as well as its strategic priorities and integration with budget policies are not publicly known. | WW (partially for establishment of integrated revenue management mechanisms with stabilization purposes, and long term macro-economic model to help define fiscal policy stance) | Technical assistance could help to fast-track the review of objectives and integration with fiscal and local development policies of the strategic investment fund |

| 4.2. Savings decisions to facilitate: (i) public expenditure smoothing in light of price volatility and (ii) asset accumulation in light of the finite nature of oil, gas and mineral resources | • Law 2/2014 is a simple budget earmarking to channel petroleum revenue to a list of priority sectors and to support general government expenditure: no stabilization or saving function is envisaged; | | |

| 4.3. Public expenditure allocations nested within a medium-term expenditure framework and aligned with a country development strategy that ensures adequate scrutiny/appraisal of public investment choices and provides for sound revenue sharing policies | • A strategic investment fund was recently established. Its objectives and structure, as well as its strategic priorities and integration with budget policies are not publicly known.  
• The lack of MTEF is a significant gap. According to IMF (2016), “the transition on program budgeting is not planned before 2022. The Authorities should improve the preparation and presentation of the budget, in particular strengthen the current macroeconomic framework by establishing a medium-term macroeconomic framework, and by publishing a multi-year public investment | IMF | |

| | | | |
### 5. Sustainable Development

#### 5.1. Strong public financial management and procurement systems

- New procurement code is being implemented, while fiscal consolidation and shift to cash-based budgeting are expected to curb the use of extraordinary spending.
- New PEFA is expected to be completed in 2018, providing updated information on key fiscal indicators.

**WB**

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#### 5.2. Public investment decisions that adequately capture potential benefits of EI expansion/diversification

- Law Nr 002/PR/2014, of January 27, 2014, on the Management of Oil Revenues, establishes the distribution of oil revenue to priority sector, current expenditure, and decentralized territorial entities of productive regions.

Analytical work is needed to identify a more concrete and focused definition of priority sector, as well as relative priority, and revenue distribution criteria.
<table>
<thead>
<tr>
<th>5.3 Adequate policies are in place to facilitate the development of local enterprises for economic resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>- No policy leveraging petroleum sector investments for in-country value creation and economic diversification</td>
</tr>
<tr>
<td>- Basic provisions in petroleum contracts require companies to “consider” local recruitment, establishing training programs, and give priority to Chadian companies for service and construction contracts, subject to qualifications with respect to industry standards, price, quantity, timing, delivery and payment conditions.</td>
</tr>
<tr>
<td>Analytical work is required to assess the current and future potential for in-country value creation in connection with petroleum activities, including potential for greening local value chains.</td>
</tr>
</tbody>
</table>