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By Rosário Paixão and Nuria Brinkmann
Miranda Law Firm

Top Refining Projects in Africa

The era of fossil fuels, far from being over, is starting a new chapter, especially after the recovery in crude oil prices in recent years. According to most forecasts, fuel demand shall peakin 2030, only then starting to decrease. Experts agree that, whether one likes it or not, petroleum will remain the world's main energy source for the next half century. In fact, demand is expected to rise from 79 million bpd in 2003 to 121 million bpd in 2025. In order to meet such demand, global crude oil refining capacity is expected to increase at an average annual growth rate of 4% from 102,603 mbpd in 2018 to 125,163 mbpd in 2023.

Although Asia is expected to lead the global refining industry between 2019 and 2023, both in terms of capacity and capital expenditure, the African continent has shown signs of a significant boom in the downstream sector in many countries. Major greenfield projects were announced in Nigeria and Uganda, while Angola is investing in the improvement of existing facilities and the development of new units, and Algeria's strategy for growth includes the acquisition of a refining unit abroad.

Angola – João Lourenço's 'Regeneration Program' boosts the downstream sector

Almost immediately after taking office, President João Lourenço announced his intention to make Angola's hydrocarbon sector more competitive and self-sufficient.

In addition to a major reform in the upstream sector, which included the replacement of the State-owned company, Sonangol EP, as the national concessionaire for the petroleum sector by the recently created National Oil, Gas and Biofuels Agency and significant simplification measures for tender procedures in the petroleum industry, President João Lourenço also decided to reorganize the downstream sector, focusing on the reactivation of dormant projects. A new legal framework applicable to refining activities, concluded in 2017 with the enactment of a new statute on technical and procedural rules for the design, construction, operation and maintenance of refineries, also eased the way for local and international players seeking to invest in the sector.

The Lobito refinery project, which had been suspended in 2016 by the former Chairman of Sonangol, allegedly to reevaluate the scope of the works considering the fall in international oil prices, was re-launched in 2017 with an open international tender.

Private investors responded enthusiastically to this opportunity. The international tender for the construction of the Lobito facility registered a massive participation, with a total of 16 proposals selected by Sonangol in the first phase, seven of which were pre-selected. The award of the project has not been officially announced yet, but the refinery is expected to be completed by 2025. Once it starts operating, the Lobito Refinery should be processing around 200,000 bpd of crude oil.

The tender for the construction of a new unit in Cabinda, launched in 2017, is also on the horizon. Of the nearly 70 proposals initially submitted by national and foreign companies, seven entities were selected and subject to additional evaluation and due diligence procedures. Sonangol's board of directors announced in 2018 the award of the construction of the Cabinda refinery to the United Shine consortium, the members of which are yet to be disclosed. Negotiations with the consortium members are underway and expected to be concluded in the first half of 2019. The new refinery will have a processing capacity of approximately 60,000 bpd and completion is expected by the end of 2021.

A third project that has long been in the Government's pipeline is the optimization and expansion of the only existing refinery in Angola, the Luanda refinery. After the recent award of the project to Italian oil major ENI, it is expected that, after conclusion of the work in 2021, the refinery will increase by four times its current capacity and there by dramatically reduce the country's continued dependence on imported refined products. The improved Luanda refinery will increase gasoline output to 1,200 daily tons, against the current 300 tons.

Nigeria– the largest refinery in Africa

Nigeria, the largest crude oil producer in Africa, is now half-way through the implementation of the country's first privately owned

Source: USTDA

Hydrocracking unit bound for Dangote Refinery

refinery and the world's largest single-train refinery. The controversial plan by cement magnate Aliko Dangote to turn Nigeria into a massive fuel exporter seems to be back on track after taking into consideration important criticisms and having to change the project's location.

Even though the 'Giant of Africa' has been topping the ranks of African petroleum and fuel producing countries, with a crude oil production of 1,999,885 bpd and a refining capacity of 445,000 bpd, fluctuations have always been significant, not only in the downstream but especially in the upstream sector. In recent years, violent attacks by local militant groups, many times blowing up pipelines and kidnapping foreign oil workers as a protest against poverty and environmental pollution, resulted in many operations having to be interrupted or even abandoned because of lack of security.

At the same time, although Nigeria has a considerable potential refining capacity which, if effective, would exceed domestic demand and allow for exports to neighboring countries, the State-owned Nigerian National Petroleum Corporation (NNPC)continues to import the bulk of the country's refined products' consumption. This is a consequence of the national refineries traditionally operating way below their fullest capacity, mostly due to sabotage, lack of maintenance for over 20 years and technical failures. The Minister of Petroleum recently explained that Nigeria's four refineries in Port Harcourt, Warri and Kaduna had still not concluded repair works, more than four years after their original constructors completed the technical assessments on the facilities, because it was concluded that most of the units were simply obsolete and could either hardly produce again or effectively increase their current production.

Fixing the decrepit existing refineries seems to be a never-ending challenge that has already cost Nigerian a fortune. Although plans to revamp the current units have not been entirely set aside, the Government is now more interested in planning the country's first green field project in more than 30 years, by supporting the construction of the Dangote refinery. Aliko Dangote had already announced his plans to enter and cause a major change in the refining industry in 2016. Back then, he was already considered the richest man in Africa, his net worth being estimated at $11.2 billion. The lack of expertise in the sector – Mr. Dangote's fortune was mainly made in the cement and food industries – did not stop him from entering into this extremely ambitious $14 billion project, presumably to be financed, more than 60%, by his company Dangote Industries Ltd.

While Mr. Dangote hopes the refinery could be producing annually 10.4 million tons of gasoline, 4.6 million tons of diesel and 4 million tons of jet fuel by 2020, most experts seem to suggest this may not happen before 2022.

The Dangote complex will also include a 3-million metric ton/year fertilizer factory and a petrochemical plant. The unit will be powered by gas, which will be piped from the Niger delta via two 550-kilometer underwater pipelines.

This should result in the Dangote project being able to supply fertilizer, kerosene and gasoline to the entire Nigerian population and still have plenty of products to export to neighboring countries, bringing in important foreign exchange reserves.

Uganda – a late but big entry into oil production and refining

Uganda first hit oil in late 2000, although production operations have been successively delayed since the Government failed to reach an agreement with the potential operators, namely regarding tax and strategic matters.

The country expects to be able to start commercial production of crude oil in 2022, two years after the initial target announced for 2020. Oil will be produced by France's Total SA, China's CNOOC, and Irish firm Tullow Oil Plc.

At the same time, Uganda is aiming to refine petroleum domestically in order to reduce importation of oil products. By mid-2018 Uganda had already signed a framework agreement with a consortium, led by General Electric, to build and operate a 60,000 bpd refinery that is expected to be fully operational by 2023.

Algeria – political and economic changes give rise to investment opportunities in the downstream sector

Despite overcoming the Arab Spring's revolutionary movements, Algeria's President Abdelaziz Bouteflika could not avoid his health issues and the increasing need of change that the Algerian population was protesting for in the streets of Algiers. After two decades in office, Algeria's longest-serving President recently announced his resignation.

The North African country is now facing considerable political and economic changes, which could entail significant opportunities for attentive investors. Hydrocarbons have long been the backbone of Algeria's economy, accounting for almost 60% of State budget

Source: Sonatrach

Algerian refining sector has seen some rehab

revenues. With 12.2 billion barrels, the country ranks sixteenth in proven oil reserves, a large part of this potential still being unexplored. To attract additional foreign investment to the area, a new and much anticipated hydrocarbons law was recently announced, a first draft of which, according to publicly available information, should now be under analysis. The amendments are expected to include tax incentives, a bigger variety of contracts and the alleviation of administrative procedures to improve the attractiveness of the sector to international players.

Both the upstream and the downstream sectors of the national oil industry are essentially owned by the State. The national oil company, Sonatrach, owns roughly 80% of total hydrocarbon production and Naftec, a subsidiary of Sonatrach, operates Algeria's four current refineries: Skikda, Hassi Messaoud, Algiers and Arzew.

Despite the four refineries' combined capacity being 450,000 bpd, domestic consumption still outstrips supply (currently, Algeria imports approximately around 2.9 million tonnes of gasoline and diesel annually). In order to balance out its product demand within the next 10-15 years, Algeria is putting in place a series of major reforms to the oil sector, including the new Sonatrach strategy (SH 2030), which is a combination of measures aiming at facilitating foreign investment, revitalizing the downstream sector and developing Algeria's shale gas deposits.

Several measures had already been announced by Sonatrach back in 2012, including a five-green field-facilities downstream development program. Two of the new refinery projects (Hassi Messaoud – near the country's biggest oilfield – and Tiaret) have already reached the tender phase.

Algeria also launched a modernization plan of the existing refineries more than a decade ago. Skikda's refinery upgrading works were completed, although the unit is still not working at its full capacity. The upgrade of the Sidi R'cine refinery was recently completed, and the unit inaugurated in February 2019. Sidi R'cine is the result of rehabilitation and expansion work on the pre-existing Algiers refinery. The project was awarded in 2016 to China Petroleum Engineering and Construction Corporation, a subsidiary of China National Petroleum Corporation, and increased the refinery's capacity from 59,000 bpd to 79,000 bpd.

Finally, Sonatrach has recently announced the acquisition of ExxonMobil's Augusta refinery in Sicily, a 10-million-ton capacity facility, and three oil terminals in Italy. Plans to buy other refineries overseas have not been set aside if the opportunity arises. According to Sonatrach's CEO, with the refineries of Augusta, Sidi R'cine and Hassi Messaoud, domestic production would largely meet the country's needs and allow exports of refined products, turning Algeria into one of the few self-sufficient countries in terms of fuel balance.

Refining gap – an opportunity for investors

The so-called African refining gap has been a hot topic for years now among experts, stakeholders and policymakers in most African countries. The fact that many major petroleum producers are still importing a large share of refined products to meet their populations' needs is a paradox that weights heavy on the respective States' budgets and that urges immediate and effective solutions.

Although prospects for green power are on almost all African agendas, the truth is that electricity and transportation in the region will continue to be based on fuel for the coming years. Demand for fuel will grow rapidly, thereby increasing pressure to increase domestic production and to improve the quality of refined products. Since refining facilities in almost all African countries are obsolete, inefficient or simply scarce, these countries are now facing the great challenge of building new refining facilities and upgrading the existing ones. Projects are being pushed aggressively by local governments since the need to revert the current trend of exporting crude oil and importing refined products to meet the domestic demand is enormous.

Emmanuel Ibe Kachikwu, the Nigerian Minister of State for Petroleum Resources and former Chairman of NNPC recently gave a speech which very much reflects this trend: "We are very much committed to repairing what we call the existing Big Four which are the four refineries we have located in Port-Harcourt, Kaduna and Warri. If everybody had ran at the speed that I wanted to run, we should have that up and running quite frankly all done and functioning by 2019. Not for election purposes, but for the fact that it will be such a sad day for this country if at the end of 2019, we're still hopping around the world trying to import product. It costs us a lot of money, it's waste of vital foreign exchange that we shouldn't pay and it deprives our people of good jobs at hand. We need to hurry up that process."

The same applies to Angola, where the intention to move on to a new era in the refining sector was made very clear with the enactment of the most recent legislation, to Uganda, a country that is only now entering the refining industry but already has big plans, and to Algeria, where the sector is undergoing a major modernization phase.

Notwithstanding the challenging singularities of African countries in general and the refining sector in particular, these developments are good news for foreign investors wishing to make the most of the momentum and leaving their mark in the process of overcoming the chronic refining gap that these countries have faced for decades.

**Rosário Paixão and Nuria Brinkmann are respectively a Principal Associate and an Associate at Miranda's Energy and Natural Resources Practice and are involved in advising oil and gas companies in their operations in Lusophone Africa. Rosário and Nuria may be contacted at Rosario.Paixao@mirandalawfirm.com and Nuria.Brinkmann@mirandalawfirm.com.*