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Refining Africa's future

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In March 2006, 36 representatives of Africa's 39 refineries met in Cape Town and formed the African Refiners Association (ARA). The force behind the creation of the ARA was the Managing Director of Société Ivoirienne de Raffinage (SIR), Joel Dervain, who was also selected as the organisation's first president. The ARA also chose the head of Cameroon's Société Nationale de Raffinage (SONARA), Godfrey Yenwo Molo, as its secretary-general and retained the services of the London-based energy consultants Citac. With surging demand and stagnant world refining capacity, Citac, headed by Mark Elliott and Gary Still, and the ARA must 'hit the ground running' if they are to make a difference in the African refining sector.

According to the International Energy Agency, \$20bn a year will have to be invested in the international refining industry between now and 2030 to meet the expected increase in demand.

Although refining profit margins are increasing, investment in capacity has been limited. In 2004 capital expenditure on refineries increased by only 1,6 percent, of which most was spent on maintenance costs. In 2003 \$17bn was invested but did not result in any increase in capacity, and in 2004 world refining capacity only increased by 0,8 percent. By 2010 refining capacity of nearly 3,5 million barrels per day (bpd) will come on stream (which includes new refineries and upgrading of older refineries) but the refining bottleneck may continue as demand will quickly consume any increase. Seventy-eight percent of the new capacity to be built by 2010 will be in the Middle East, South and South East Asia.

But Africa is also trying to cash in on the deals as well. Africa accounted for approximately 3,3 percent of the world's refined product output in 2004. Sub-Saharan Africa has an installed nameplate capacity of 68 million m/t per year which is theoretically enough to cover its 64 million m/t per year demand. But, in reality, most refineries in sub-Saharan Africa (SSA) — excluding South Africa — operate well below their official capacity, leaving over 50 percent of SSA's demand to be imported. Refineries in over a dozen African countries have had to close. According to Citac, of the 31 refineries built in SSA only 18 still operate.

Egypt, Algeria and Libya dominate the north African refining industry, but the region's sector has historically been markedly different to that of sub-Saharan Africa because of its proximity to the large European market. In sub-Saharan Africa, South Africa is the dominant player with the 110 000 bpd Caltex Refinery in Cape Town; the 165 000 bpd Sapref Refinery in Durban; the 105 000 bpd Enref Refinery, also in Durban, and the 85 000 bpd Natref Refinery in Sasolburg.

Although inefficient, riddled with closures, operating below 50 percent of capacity and owned by the government, Nigerian refineries dominate West Africa. The 110 000 bpd Kaduna Refinery, the 125 000 bpd Warri Refinery and the 210 000 Port Harcourt Refinery represent 60 percent of the region's refined output.

African governments are actively seeking foreign investment in the refining sector, but only a few new projects have been completed or are likely to come on-stream in the near future. They include the \$30mn upgrade of SIR's Abidjan facilities; the \$275mn plan to upgrade the Tema Oil Refinery from its current 45 000 bpd to over 100 000 bpd; the planned \$220mn upgrade of the Mombasa Refinery in Kenya and the Sudan Khartoum Refinery Co. Ltd. expansion of its Khartoum facility from 70 000 bpd to over 100 000 which has already been completed.

Dozens of companies are talking about building refineries in Nigeria, including Transnational Corporation of Nigeria (Transcorp) in which President Obasanjo has a minority interest held in a 'blind trust'. But few have come to fruition. Other than small refineries to supply the needs of the oil and gas industry, the 12 000 bpd Amekpe Refinery in Akwa Ibom State and the 55 000 bpd Orient Refinery in Nsugbe-Ulumeri, Anambra State, there have been no new major additions to Nigeria's refining capacity. Although Qatar-based Noor Petroleum has signed a Memorandum of Understanding with the government of Tanzania to invest \$2bn in a refinery and pipeline from Dar es Salaam to Mwanza, the only major additions to Africa's capacity by the end of the decade will be from the 100 000 bpd refinery being built in the Port of Sudan in a joint venture between the Sudanese government and Malaysia's Petronas, and the 200 000 bpd Chinese-financed Lobito refinery in Angola.

The ARA was created to enhance cooperation amongst Africa's refineries to address economic, social and environmental issues related to the industry, and address issues within the international refining industry which are affecting African refineries. As Gary Still of Citac suggests, "African refineries at the moment are in full solidarity mode."

The ARA is especially interested in foreign governments' assistance to domestic refineries, which may result in the dumping of cheaper refined products in the African marketplace. "Lets not pretend

this is not happening,” says Still.

So, with 23 members representing most of Africa’s refining capacity, the ARA is set to become an important player in industry’s future by deepening the debate between African refineries on the one hand, and the international community on the other, which has its own vision of the future of the refining industry.

According to the United Nations Conference on Trade and Development (UNCTAD), “Few [African] countries have large enough markets to support more than one refinery or one set of jetties or storage terminals.” So institutions like the World Bank believe a more liberalised and rationalised approach is the best way to guarantee the African refining sector a place in such an internationally competitive sector. Most of the refineries in sub-Saharan Africa are simple ‘topping’ facilities which only produce fuel-oil (the first stage of the refining process) most of which has to be exported for further refinement into diesel or gasoline. As Eleodoro Mayorga-Alba, the lead petroleum economist at the World Bank, states, “these small facilities are starting to weigh heavy on the economies”, and continued government protection and control of refineries continues to create “supply problems, inefficiency and corruption”.

According to Mayorga-Alba, of the three stages of the refining sector — facilities to handle supply; processing; and downstream distribution — Africa’s weak link is in the middle, because the facilities are too old and inefficient. Moreover, the distribution infrastructure is lacking, and companies involved in downstream marketing are not integrated into the system very well.

In an ideal setting, devoid of political considerations, Mayorga-Alba believes that five to six ‘greenfield’ refineries can handle all of sub-Saharan Africa’s demand, but at an average cost of \$1,5bn the main issue is money, and the World Bank is not willing to remove money from social programmes to fund such a rationalisation.

Part of the ARA’s mandate is to protect the few remaining refineries in Africa from the effects of rationalisation, because, as Still suggests, if the rationalisation argument is extended to its logical conclusion, all refineries in Africa will be shut down owing to the massive refining advantage of the Middle East and Asia, leaving the continent utterly dependent on foreign sources.

The second key debate that will gain ground in the coming years between the ARA and the international community is the reduction of the environmental impact of refined fuels. Although, as Mayorga-Alba suggests, the world has been “successful in eliminating leaded gasoline in all of sub-Saharan Africa in less than five years”, there is still a long way to go — among other things, reducing the level of sulphur in sub-Saharan African refined product output.

Although Still applauds the elimination of lead, he is more cautious about the effects of removing sulphur: “To stop putting something in is much different from removing something that occurs naturally,” he says, and in order to achieve much lower sulphur levels, Africa “needs more complex refining systems”. “Where is that money going to come from?” asks Still.

For starters, foreign investment is seen as the key in providing much-needed capital injection into Africa’s refining sector, but most of the new capacity will be coming from the Middle East, South Asia and South East Asia. Although not targeting the African market, their products will eventually end up in Africa and may reduce the refining profit margins and make Africa’s refining sector less attractive to foreign investors.

In a report entitled Meeting Trade and Development Challenges in an Era of High and Volatile Energy Prices, released in November last year, UNCTAD stated that, “...already in 2004, about 5 million mt of AG/India gas/oil was sold to West African countries, including 2,5 million to Nigeria alone. These low-cost deliveries already have had a major impact on African refineries.”

The fact is Total is the only international oil major with a significant interest in the refining sector and downstream distribution networks in sub-Saharan Africa. Total operates over 3 700 service stations throughout the sub-continent and has a 30 percent market share in over twenty countries. Total also has ownership in seven refineries in the sub-continent; 55 percent of Société Africaine de Raffinage (Senegal); a 25 percent stake in SIR; a 44 percent stake in Société Gabonaise de Raffinage; 56 percent of Fina Petroleos de Angola; an 18 percent stake in SONARA; 50 percent of the Indeni Refinery in Zambia; and a 36 percent stake in Natref in South Africa.

Attracting more oil majors like Total to Africa is key to the future of the African refining sector, and the announcement in late 2006 that the Port Harcourt Refinery (PHR) in Nigeria is now back under the auction hammer may be an attractive lure.

Still states that “the market for gasoline and dual-purpose kerosene is not fully liberalised” — hence oil majors may once again shy away from the PHR ‘opportunity’. In July 2006 the Obasanjo government decided to cancel the privatisation of the 60 000 bpd and 150 000 bpd facilities that make up the PHR, because as Edmund Daukoru, Minister of State for Petroleum Resources at the time said, the “government is satisfied with the progress made in the plants’ rehabilitation and their performance. It is as a result of the improvement in the operations of the refineries that President Olusegun Obasanjo granted a request to exempt Port Harcourt from the ongoing privatisation.”

Although Nigerian companies, such as Oando Plc., Transcorp and even the Rivers State government, were interested in bidding for the PHR, the only international oil major to show a sign of elevated interest was Shell, because, as Still argues, "it is a sorry story with refining in Nigeria".

Nigeria's refining sector will be a challenge for the ARA but maybe the January cabinet reshuffle, which saw President Obasanjo finally relinquish his role as Minister of Petroleum Resources after seven years and the promotion of Dr Daukoru to Minister of the new Energy portfolio, an amalgamation of the former Ministry of Petroleum Resources and Ministry of Power and Steel, will offer a new framework in which all stakeholders can work efficiently towards the revitalisation of the refining sector.

ARA has begun to take action on its dual mandate to protect African refineries and attract further investment, against a backdrop of a booming oil and gas industry. The stage is set for yet another debate on the future of a key economic sector in sub-Saharan Africa...

Time to assert the African refinery agenda

The ARA does not have the luxury of time and its 2nd AGM will be used as a platform to productively assert the organisation as a key player in the booming African and international petroleum sectors.

The ARA's next Annual general meeting (AGM) will be held on 6 and 7 March at the Arabella Sheraton Grand Hotel in Cape Town, with subsequent workshops on the 8th and 9th organised by Citac. The Cape Town meeting will be the first full working AGM, since the first one was spent dealing with ARA start-up issues. The formal proceedings will be dominated by the reports of the findings of the working groups set up during the ARA's inaugural meeting in March 2006.

The Specifications Working Group, headed by the ARA's Secretary General, Godfrey Yenwo Molo, will report on its findings in relation to petroleum product specifications with a focus on the work done by the World Bank and the United Nations Environmental Programme for the elimination of lead and reduction of sulphur, and the ARA's goal to develop standard product specifications similar to that of Europe and the US.

The Database Working Group will update ARA members on the progress towards the creation of an information system with a wide range of information about the refining sector in Africa. The database will be managed by Citac and contain up-to-date information about supply, demand, refining capacity, storage facilities, ports, government policy and domestic consumption, just to mention a few.

The Health and Safety Working Group will report on its efforts to enhance cooperation amongst African refineries in order to minimise the environmental impact and increase worker safety and refinery efficiency. Finally, the Strategy Working Group will report on its preliminary findings on the impact of global refining capacity on the African market and update the ARA on relations with the World Bank, the International Monetary Fund and other international financial institutions. *-Business in Africa Magazine*