

Notes on Africa, Oil and Other Energy Sources

Luis Alcaide

In this century of modernisation and globalisation, the most common source of energy in Africa, especially to the south of the Sahara, continues to be biomass: wood continues to be used for cooking and heating. Oil and gas have just appeared, and with them the question of whether they will be able to balance Africa's energy deficit, and to what extent the revenues obtained from their sale on international markets will be a solid and lasting stimulus along the difficult path towards economic development, helping to eradicate poverty and, with it, the trap of demographic growth.

The location of large pockets of hydrocarbons in the Middle East and in the waters of the Gulf of Mexico and the Caribbean was a sign, a geological clue regarding the distribution on the Earth of that oleaginous stone: petroleum. However, the necessary incentives to explore an intermediate point between the Middle East and the Near East were missing. The relative abundance of hydrocarbons, reflected in low prices during most of the nineties, discouraged exploration; only the enormous economic growth of the last few years and the abrupt deterioration of the international political landscape reversed this scenario. Oil was scarce and expensive. Thus there was a frenetic search in Western Africa, from the coasts of Ghana to Angola with an epicentre in the Gulf of Guinea, while at the same time there was exploration and oil was discovered in the heart of the continent, and in the Sudanese waters of the Red Sea.

Other factors increased Africa's attractiveness: the toughening of exploration conditions in countries within the Middle East and the consolidation of state-run companies, which currently control over 80 per cent of the world's crude reserves. Private oil companies needed to reconstruct their reserves. Africa, with low extraction costs and a warmer reception from governments, which were as versatile as they were in need of cash, became a very attractive destination.

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Traditionally the African continent has been a land of conquest. With the presence on the continent of gas and oil, everybody has shown up for the party. The large companies from the West have arrived, as have the mid-sized companies with good relations with local authorities and, naturally, Chinese state-run companies, eager for resources and not very scrupulous when it comes to human rights. And the greed has been so scandalous that criticism from the West, without a doubt self-interested, has been reiterated by leading figures from the University of Beijing, who have condemned the interests of Chinese companies for prevailing over the general interests of their foreign policy. The Chinese Academy for Social Sciences has announced that it will send a mission to Sudan to analyse the behaviour of Chinese oil firms within the sensitive area of Darfur.

Africa has seen its population triple since it obtained political independence during the 1950s and 1960s, while economic development has been stagnant. The outlook is one of despair. Income per inhabitant declined, and the continent has 34 of the world's 50 poorest countries. The integration of local labour markets has been very difficult, and local governments have failed to forge interregional relationships. There are serious differences between the countries of the Maghreb region – the border between Algeria and Morocco has been closed since 1994, thus goods must arrive by sea and many times via France or Spain –, and ethnic conflicts and extensive corruption are apparent on all levels. In short, a series of difficulties hamper the inflow of capital. The only compensation is that the resource in question, oil, is easily accessible and exploitable, aside from being profitable.

These negative aspects have discouraging private investment, which has been compensated by growing international economic assistance since independence. Initially the objective was to achieve economic development in Africa through large infrastructure projects, which would mobilise an enormous quantity of resources, but corruption and the inability to take advantage of these investments led to the withdrawal or reorientation of these investments. Consequently, priorities turned towards more modest projects, destined to satisfying basic needs: food, water purification, hospitals, community clinics. Humanitarian aid has substituted infrastructure works, an alarming hotbed of corruption. The assistance that has been granted during the post-colonial era, more than 500,000 million dollars, has barely had any effect on the development of Africa. It has served to quieten down famines and diseases, as well as to balance foreign accounts; but above all it served to fill the pockets of the ruling class and their families, while dissolving the urban fabric of the major cities, which were one of the few positive legacies of the colonial period.

The images captured by satellite during the night show a large dark stain that extends towards the south from the Sahara desert. A lifeless continent despite its abundant hydraulic resources, lifeless due to corruption and

misrule. The formidable hydraulic project of Inga – as described in a Financial Times report – collects the abundant volume of water that the Congo River sends into the Atlantic Ocean from Kinshasa, and should have generated 40,000 MW of hydraulic energy, double that of the grand Chinese project of the Three Gorges Dam. The first unit of the Inga project was completed in 1972 under the dictatorship of Mobutu. Ten years later Inga 2 was commissioned. The equipment arrived, the retaining wall was erected, the turbines were installed, and the accounts in Western banks belonging to those within the dictator's circle were fattened. The economic and political breakdown of the Democratic Republic of Congo (DRC) put a brake on the equipment maintenance operations. Currently only three of the eight turbines are operational. The project for 40,000 MW has been reduced to 1,700, barely 5 per cent of the dam's potential.

The first democratic elections in the DRC have brought greater political calm, while the increase in the prices of the mineral resources hidden below the subsoil has encouraged private investors, as well as public bodies, to finetune hydraulic energy. The nearby mines and industrial installations, as well as the rich copper deposits in Katanga, the coal deposits, and South African diamonds require energy, and they need it urgently. All this accentuates the interest in resuscitating the Inga project, “the greatest availability of electric energy in Africa for Africans”, as can be read in an inscription on one of the walls of the dam. Inga 3 is once again off and running thanks to an association for the development of southern Africa. A gigantic dam will not only house the waters of the Congo River stemming from the north, but will also house the Angolan waters from the Cuanza River; in short, it will make comprehensive use of the rainfalls within the river basins of this extensive African region.

Will this hydraulic dream become a reality? Will the legacy of the oil prospectors be comparable to that of the European and Asian slave traders? Africa is the last continent to have received the organisational techniques and procedures of western capitalism. The explanation does not lie in the backwardness of the population; Africans were aware of the use of metals back when American Indians were confined to building and using instruments with cut stones. The severity and insalubrious nature of the land is not any greater than that found along the corridor between Central America and South America, or in the jungles of Brazil and Peru. During the 16th and 17th centuries, Spanish colonisers were already exploiting the gold and silver reserves of the Andes, whilst penetration within the Katanga region in search of copper and gold, and diamonds in South Africa, would wait until the 19th century.

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Undoubtedly what were missing were the stimuli for economic development. The abundant and fertile lands of America did offer incentives, as well as the available capital. All that was required was labour to bear the fruit of the sugar cane, cocoa or corn. Labour was on the other side of the Atlantic, in a relatively populated region, isolated from Europe by the great deserts as well as by the consolidation of Islam on the northern façade of the continent. The Mediterranean had ceased to be the *Mare Nostrum*, and was now a hostile barrier between Christianity and Islam. Africa was only accessible via its coasts. Firstly, with victualling yards on the route to the Americas in search of spices and luxury goods, and subsequently with fortifications to house slaves as they waited to be taken to America. The transatlantic slave trade awakened an interest in Africa, tempting Dutch, Portuguese, English and Spanish merchants, with the collaboration of local leaders and the moral abandonment of Christians, Catholics or Protestants.

In their "Brief History of Africa", R. Olivier and J.D. Fage highlight that "for the Europe of the end of the 18th century Africa was nothing more than a coastline; coast, on the other hand, that was not very representative of the interior". This strip saw the settlement of slave trade enclaves, which were then followed by merchants, firstly European and then Lebanese and Syrian. With the abolition of the slave trade, the erstwhile merchants fostered the setting up of plantations close to the coast. During the second half of the 19th century and the first half of the 20th century, all of them contributed to the relative prosperity of the African coast, with complete disregard for the population in the interior. Hindus and Arabs would play the same role on the eastern coasts. What never occurred, not even during the days of the colonial partition of Africa, was the massive arrival of European immigrants. If between 1880 and 1930 around 50 million people emigrated from Europe, only a few, barely 70,000, went to Africa, concentrating in Algeria and South Africa. In general they were unskilled workers. Tropical Africa did not offer any incentives for European capital, nor for qualified technicians. The sole exception was the mining industry, which took more than 75 per cent of European investment. Now it is time for hydrocarbons.

Oil and gas discoveries in Africa confirm forecasts by the International Energy Agency (IEA) regarding the existence of sufficient energy resources on the planet, although naturally at a higher cost. The oil discoveries in Africa have been followed by gas discoveries, which add to the existing exploitations in Libya and Algeria. Unfortunately, however, a large part of sub-Saharan Africa lacks the energy infrastructure that would allow for the new energy resources to reach the native population. Only 24 per cent of the population in Africa has access to electric power, thus 630 million inhabitants depend exclusively on biomass, essentially wood, to cook and heat. If in accordance with the scenario forecast by the IEA primary energy grows between 2005

and 2030 at an annual average of 1.8 per cent, the forecast increase for Africa is estimated at around 2.6 per cent. This will be possible thanks to the growing substitution of biomass with oil in the form of LPG (Liquefied petroleum gas) and kerosene. Electricity will increase around 4.4 per cent annually until 2030, reducing the number of people without electric power to 586 million. All this implies a gigantic investment effort so that the power grid reaches 51 million users. This investment – including the Inga dam – is estimated at 1.2 billion dollars for the period 2005-2030.

African resources will be exploited and used by the white man; but is it now China's turn? Africa offers gas and oil at a very competitive extraction cost, in regions that are normally more politically neutral, and less risky, than the Middle East or Russia, despite being conflict-ridden in some cases. On the other hand, new discoveries in the Gulf of Mexico are less and less promising, while Venezuela increases its requirements for the exploitation of gigantic reserves of heavy fuels. The presence of China in Africa is becoming increasingly intense and extensive. It is already Angola's largest client. China offers turnkey industrial projects, even importing its own labour and offering credit under very competitive conditions. The growth in China and India's energy needs surpass that of the OECD countries, and explains the race to discover raw materials. The IEA confirms that oil is and will continue to be the planet's main source of energy, with 35 per cent of the current total, falling slightly to 32 per cent by 2030. During this same period, the market share of natural gas will increase from 21 to 22 per cent, while coal will increase from 25 to 28 per cent. The use of electricity will double, and its share in the consumption of energy will increase from 17 to 22 per cent.

Africa is the new supplier. Nigeria is already the world's twelfth producer, and is ranked eighth as a net exporter of oil, with 2.15 million barrels per day. Algeria is the world's ninth exporter, with 1.85 million barrels per day; Libya occupies the eleventh position with 1.52 million; and Angola is in thirteenth position with 1.36 million.

Angola, Nigeria and Equatorial Guinea are representative examples of the present and future of sub-Saharan oil. Having ended its civil war, Angola has become China's leading supplier, overtaking the distracted or ineffective North Americans and Europeans, who are more preoccupied, in particular Spain, with resolving Angola's debts with the Paris Club. Perspective has been lost regarding post-war Angola, a peaceful country with a sovereign government, which is reasonably responsible, in an international context where the price of an oil barrel exceeds 100 dollars.

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Nigeria is as interesting as it is representative of the complexity of Africa. With estimated reserves of 25,000 million barrels and daily production of 2.15 million barrels, the authorities trust, thanks to new exploration and improved detection techniques, that they will be able to increase reserves to 40,000 million barrels and produce a daily output of 4.1 million barrels. Western companies are responsible for extraction, but the Nigerian Government recently signed a mega contract with the Russian state-run company Gazprom to develop the structure, processing and transport of gas. The warning was aimed at the Western governments that have been very critical of the organisation and results of Nigeria's elections, held in April 2007. After hard bargaining, the Nigerian Supreme Court has confirmed the results and the legitimacy of the president victorious at the polls, Yar'Adua. A Nigerian from the north, he was an excellent administrator of his province and is willing to fight corruption and guarantee law enforcement.

Corruption has been a chronic problem that has curbed growth in Nigeria, although the guerrilla conflict in the region of the Niger Delta has been a continuous headache for Royal Dutch Shell. Believing that the capture of Henry Okah, leader of the Movement for the Emancipation of the Niger Delta, last September in Angola will bring more calm to the region is perhaps a little too optimistic. Other militia chiefs operating in the region have reaffirmed their identity: "Okah has never really been our chief".

The Nigerian Government, like other OPEC producers, has renegotiated contracts with private companies so as to take over the majority of the revenues stemming from their operations. The problem continues to be the federal government's administration. The imbalance in public accounts has prevented them from complying with their part in the finance plans of new developments that would increase production to 4.1 million barrels per day, generating a surplus of energy resources for local use and the improvement of foreign accounts. If oil and gas fail, the economic difficulties will once again encourage corruption and military initiatives against the democratic government.

To the south of Nigeria, in the waters of the Gulf of Guinea and in the region of the island of Bioko, adjacent to the region of the Muni River in Equatorial Guinea, an important pocket of oil and natural gas has been found at low depth. We are dealing with high quality oil, like that located in Nigeria, and with a very low exploitation cost. Production has skyrocketed to the extent that mathematically the income per capita of the inhabitants of Equatorial Guinea, still a Spanish-speaking nation, is the third highest in the world, only behind Luxembourg and the Bahamas.

The Spanish companies, which during the 1980s enjoyed an initial monopoly in exploration – Hispanoil, Repsol at present –, failed in their search and abandoned the region. The political ability and determination to

appease the government of President Obiang also failed. In 1992, soon after the Spanish withdrawal, a modest US company, Walter International, was extracting 2,500 barrels per day. Soon after, Mobil Oil arrived, and extraction increased to 300,000 barrels per day.

The GDP of Equatorial Guinea has registered record levels of growth when compared to the rest of the world, but the population has yet to gain a part of this wealth. The IMF, always prudent in its analysis, warns of “a lack of transparency in the contracts between the government and the extracting companies, as well as a lack of control by the authorities in Equatorial Guinea in relation with oil revenues, most of which are deposited in foreign accounts. On the other hand, important budgetary extras have been financed by the extracting companies with advances of future oil revenues, thus they have received payment for their loans”. In short, only part of the oil wealth goes to swell the national treasury. This lack of control is aggravated by the fact that contracts with private companies are excessively generous to the latter, in contrast to what occurs in OPEC countries. The opposition to President Obiang has been very graphic: “Oil revenues do not reach the population, do not appear in the national budget figures nor in any other public agency, and they only serve to accentuate the marginalisation of the opposition and the acceptance of the government by western countries”.

Angola, Nigeria and Equatorial Guinea are three examples of the situation of African producers, three valid references for the remaining producers. The new players include Ghana, Chad, Sudan, Mozambique and the small island of Santo Tomé; or more traditional Libya and Algeria. Oil is an unquestionable asset, but the demographic growth of sub-Saharan Africa is an overwhelming liability. Two demographic experts from the World Bank, J. May and J. P. Guengant, estimate that by the middle of 2007 the population in the sub-Saharan region will be 788 million, 12 per cent of the world's population, and equivalent to the combined populations of the United States and Europe. Two out of every three of these Africans will be under the age of 25, which added to a birth rate of 2.5 children per mother, elevate projections for the year 2050 to the chilling figure of 1,800 million sub-Saharan inhabitants. To date, mankind has only found one remedy to reduce the birth rate: economic growth. Contraceptive methods are of little use when parents continue to need their children as the basis for the sustenance of their family.

No international organisation doubts that in upcoming years African oil and gas, and the exploitation of its minerals, will bring high macroeconomic growth rates to the African continent. Indeed, in accordance with IMF estimates, the world economy grew 5.2 per cent in 2007 and 5.4 per cent in 2006. Forecasts for this year are less optimistic (around 4.8 per cent) due to the slowdown of the US economy and, to a lesser extent, the European

economy. Even China will reduce growth rates. There is only one exception to this disappointing outlook: sub-Saharan Africa, whose rate of growth will be around 6.5 per cent in 2008, exceeding last year's figure of 6 per cent. According to the IMF, this growth rate will be the highest of the last thirty years. Oil and gas is the explanation. However, African governments cannot ignore the fact that we are dealing with limited resources subject to the energy policies of the countries of the Middle East and Russia, where the largest reserves of hydrocarbons are concentrated.