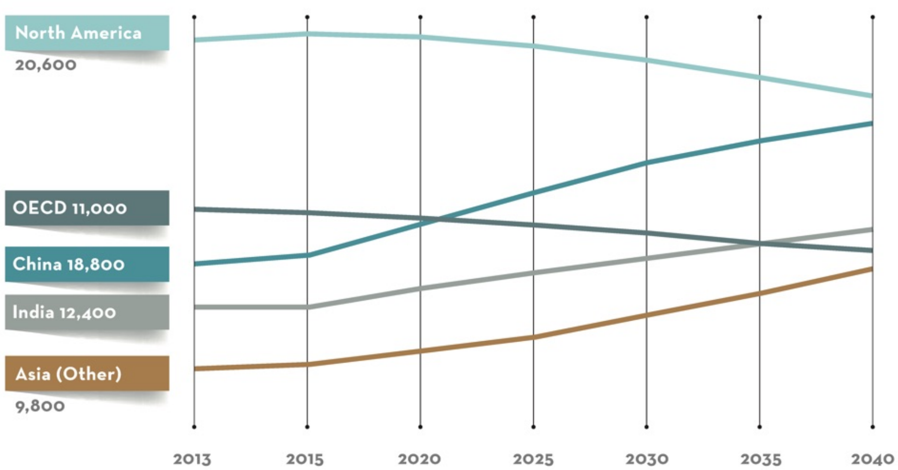
FOCUS ON OIL AND GAS

Last year the Africa-South East Asia Chamber of Commerce put together a special report presenting a comprehensive overview of the oil and gas sector in Africa, Asian engagement and the opportunities the sector continues to present. Despite the fall in the price of oil, the sector is still full of promise. We summarise over the next four pages some of main highlights of the report.

SINGAPORE DOES NOT have massive oil reserves but has managed to become an influential player in the oil and gas sector. Strategically located, it is today one of the most important oil centres in terms of storage, refinery, petrochemicals and trading. Yet, as this report shows, Singapore is a relatively new player in the African oil and gas space, whilst other Asian countries have made significant investments across Africa.

Oil Demand Forecast 2013-2040 (1,000 b/d)



Where does the opportunity lie?

Africa represents 8.5% of global oil and gas reserves. Among the top 10 oil and gas discoveries globally in 2013, six were African. Today more than 500 companies participate in the upstream oil and gas sector on the continent, amongst them new Africa players and firms from Asia.

In 2013 Africa was the world's 3rd largest producer of oil after Russia and Saudi Arabia. In terms of gas, it produced the equivalent of Iran or Qatar, with Algeria, Egypt and Nigeria contributing 85% of Africa's gas production. New discoveries in East Africa, primarily Mozambique and Tanzania, will change this dynamic although many projects are on hold since the fall in the global price of oil.

With demand from traditional partners in North America and Europe falling, Asia has grown in terms of oil exports. In 2007–11 China's share increased from 10% to 14%, while the USA's share fell from 30% to 23%. Led by China, Asia today consumes over 30% of Africa's total oil exports.

The outlook for LNG is even more interesting. Asian consumption of LNG is due to double between 2012 and 2022. Led by Japan, which consumes 37% of global LNG supply, the region is also the world's largest LNG import destination, contributing 54% of global LNG imports.

A potential contract between Texas-based Anadarko Petroleum and a Japanese consortium made up of Tokyo Electric Power Company, (Tepco) and Chubu electric is expected to see Anadarko supplying gas to Japan from its gas find in Mozambique.

An area where Singapore can offer expertise is in the derivative activities associated with oil and gas. Singapore is home to some 500 global traders and can be a strategic partner for African national oil companies and producers keen to derive greater profits from the whole oil and gas value chain. Singapore is the world's third largest trading hub for oil and gas. If applied successfully, there is an interesting upside to developing capabilities in price hedging and trading for African oil producers.

Asian participation in Oil and Gas

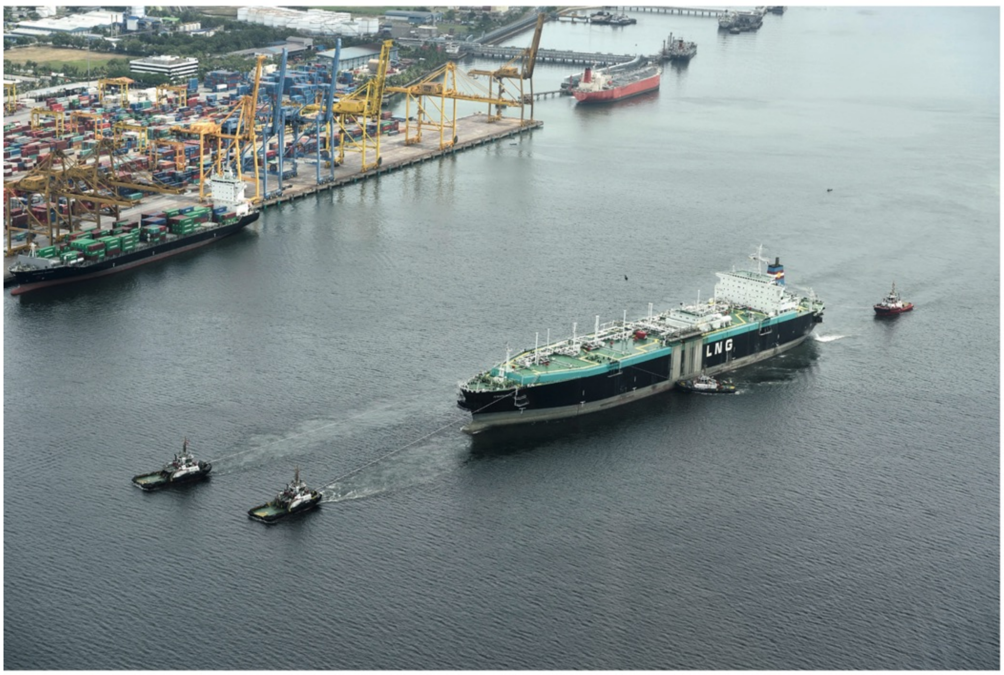
China
More than $20 billion into African oil and gas

Led by state-owned majors, Chinese oil and gas investments in Africa have stepped up aggressively over the last 10 years, through mergers and acquisitions and direct investments.

China National Petroleum Corporation (CNPC) has invested more than $670m for exploration licences in Chad. It has also invested $260m in Sudan and South Sudan. In 2008 the company signed a $5bn deal to develop the oil sector in Niger with exploration projects in Agadem block. The deal also consisted of a pipeline from Agadem and the construction of a new refinery.

In 2011, through its subsidiary Da Qing Oilfield Company, CNPC bought over 51% of India-based Varun Group's stakes in an onshore oil block in Madagascar at the value of $150m.

An LNG tanker is towed along the Johor straits bordering Singapore.



Singapore is the world's third largest trading hub for oil and gas.

In 2013 CNPC bought over Italian company ENI's 20% working interest in a major Mozambique gas field in the Rovuma Basin for $4.2bn. It was reported as "the biggest international transaction in the global upstream sector" in the first half of 2013".

China Petrochemical Corporation (Sinopec) paid $538m in 2011 to acquire Royal Dutch Shell's stake in Pecten Cameroon, which holds interests in 12 blocks in Cameroon. The company also acquired American company Apache's 33% stake in Egyptian oil interests for $3.1bn in 2013.

In Angola, Sinopec holds 50% of Block 18 through its joint venture company Sonangol Sinopec International (SSI), which also acquired US-based Marathon Oil Corp's stake in Block 31 in Angola for $1.52bn in 2013. Sinopec was also slated to acquire Total's 20% stake in Usan deepwater field OML 138 block in Nigeria for $2.5 billion in 2012, but the deal failed in 2014 due to undisclosed reasons.

In 2011, China National Offshore Oil Corporation (CNOOC) acquired, for $2.27bn, South Atlantic Petroleum's stake in Nigeria's OML 130 offshore oil block. It paid $1.45bn in 2012 to Tullow Oil in a profit-sharing agreement deal in the company's Uganda oil field. Subsequently in 2013, Tullow was awarded a production licence by the Uganda authority to develop the Kingfisher oil field, and is expected to invest $2bn on this project.

This shows the extent to which the sector is strategically important to the Chinese who are investing on a continent wide basis.

South Korea
Slowly but surely increasing its footprint

The Korea National Oil Company (KNOC) obtained an 11% share in the Republic of Congo's onshore M'Boundi oil project from Tullow for $435m in 2008. In 2010, KNOC acquired Dana Petroleum, a UK-based company with exploration and appraisal acreage in Morocco, Mauritania and Guinea. In a partnership with Canadian companies Madison Cameroon Oil and Gas Limited and International SoftRock Oil and Gas Limited, Dana Petroleum, which owns a majority 55% stake operating the Bakassi West block in Cameroon, is expected to invest $71m from 2012 to 2020.

Korea Gas Corporation (KOGAS) acquired a 10% stake in Mozambique gas Area 4 field controlled by ENI in 2014. This upstream activity is expected to produce 85 trillion cubic feet of gas as production begins in 2015.

SK Group holds stakes in eight blocks across six countries including Morocco, Algeria, Equatorial Guinea and Ivory Coast. In 2013, it acquired a 12.5% stake in four exploration licences belonging to Pathfinder, a subsidiary of UK-based Fastnet Oil & Gas, for Morocco's offshore Agadir Basin. The deal cost SK Group $3.2m.

Malaysia
Led by Petronas, with upstream interests in more than 15 African countries

Malaysian NOC Petronas has established a strong presence in both upstream and downstream oil and gas ventures across Africa since the 1990s. Its footprint covers more than 15 African oil and gas producing nations.

In 2001, Petronas entered into a deal worth $2bn with Algerian NOC Sonatrach and Gaz de France to develop a natural gas field in Algeria. In 2003, Petronas bought a 50% stake in the West Delta Deep Marine gas field in Egypt from Italy's Edison at a value of about $1.75bn.

In South Sudan, Petronas' Thar Jath field in the Muglad Basin produces about 60,000 barrels of oil per day. The company also has exploration activities in the Blue Nile Basin in South Sudan.

Notably, on the downstream side, Petronas holds 80% of South Africa's Engen (holding back PetroSA's interest to buy its stake). In 2008, it also bought Shell's downstream Zimbabwe assets.

Malaysia's Petronas holds 80% of South Africa's Engen.

Indonesia
Primarily in North Africa, keen on Angola

Indonesia is a large oil and gas player in its own right, producing 1m barrels of oil a day. NOC Pertamina acquired stakes from ConocoPhilips for three fields in Algeria at a value of $1.75 bn in 2013. It has also undertaken activities in Block 13 in Sudan and Block 17-3 Sabratah in Libya. In 2011 Pertamina bid for 25% of ExxonMobil Corp's stake in Angola oil field Block 31, but the bid failed when Angola NOC Sonangol exercised its pre-emptive right to acquire ExxonMobil's stake.

MedcoEnergi has entered Libya and Tunisia. It successfully discovered oil in Libya and acquired participating interests in eight new oil and gas blocks in Tunisia through a 100% acquisition of Chinook Energy's subsidiary Storm Ventures International for $114.03m

Singapore
Still a timid investor

Temasek Holdings bought over British firm Ophir Energy's 20% stake in Tanzania gas fields for $1.3bn through its wholly-owned subsidiary Pavilion Energy. The offshore blocks' reserve is estimated to be 15 trillion cubic feet, and the deal is expected to complement Pavilion Energy's LNG trading deal with Total.

In 2014, Temasek and the International Finance Corporation (IFC) under the World Bank Group invested $150m and $105m respectively in Seven Energy, a leading indigenous gas field developer and gas supplier in Nigeria. Through his Singapore-based firm Chandler, New Zealand born, Singapore permanent-resident billionaire Richard Chandler, invested $220m for 9.9% of Africa Oil Corp, an oil and gas company listed in Canada with upstream assets in Kenya, Ethiopia and Somalia.

Thailand
Exposures in Algeria and Mozambique

Thailand's NOC PTT Exploration and Production Public Company Limited (PTTEP) has been present in Algeria for over a decade. It owns exploration and production activities in 433a and 416b crude oil projects as a joint operator holding a 35% interest in Bir Seba field. It has also discovered crude in Hassi Bir Rekaiz project in East Algeria with its partners Sonatrach and CNOOC. PTTEP made a $1.9bn takeover of UK-based Cove Energy in 2012, securing a 8.5% stake in the Mozambique Rovuma offshore gas basin. The asset is expected to produce 10m tonnes of LNG in 2018.

Vietnam
Increases cooperation with Africa

Up to 2011, Vietnam has injected over $780m on oil and gas exploration activities in Africa.

Vietnam state-owned Oil and Gas Group (Petrovietnam) has been present in Madagascar and Algeria for a decade. Since 2001, Petrovietnam Exploration Production Corporation (PVEP) has partnered with ExxonMo-

bil, SK Energy and BG International in exploring the Majunga Block, off the northwest coast of Madagascar, which covers around 15,840 sq km in water depths ranging from around 200-3000m. Due to political unrest in Madagascar, the project has been delayed since 2009.

Only recently, it received extensions of its contract licence, which enabled resumption of the exploration activities in November 2013. PVEP also holds a 40% stake in the joint venture project to develop the Bir Seba oil field, currently in the development phase.

It includes the exploration of the 433a and 416b Blocks near Touggourt, 800km southeast of Algiers, the Algerian capital. In the second quarter of 2015, the oil field produced 40,000 barrels a day of oil output. This project is the largest by a Vietnamese company in Africa.

Petrovietnam has also entered Congo, Cameroon, Tunisia, Angola and Sudan, mainly in the upstream sector. It has discovered oil in its Lidongo X Marine 101 ST1 well ("LXM-101") in the Marine XI Block in offshore Republic of Congo.

UK-based SOCO International, the main operator of the project declared in the fourth quarter of 2014 that the well testing results would be further analysed in order to determine the continuity of the well.

Other notable exploration projects include the Bomana Block in Cameroon and the Tanit and Guellala Blocks in Tunisia. Bomana Block covers a total surface area of 1,397 sq km in the Rio Del Rey Basin in Southern Cameroon, near the oil-rich Niger Delta. Tanit and Guellala Blocks are located in the Gulf of Gabes in Southern Tunisia.

They cover a total surface areas of 2,436 sq km and 1,540 sq km respectively. In 2009, the Tunisian government awarded oil and gas exploration permits to PVEP and the Vietnam-Russian joint venture Vietsovpetro, which will work in partnership with Tunisian state-owned Entreprise Tunisienne des Activités Petrolières (ETAP).

The latest deal that allowed Petrovietnam to explore oil in Africa and vice versa was made in 2013. The joint venture of Petrovietnam and Sociedad Nacional De Combustiveis De Angola (Sonangol) is still in the process of planning of future projects.

Not just upstream

Asian companies have also played an increasingly significant role in the midstream oil and gas segment in Africa. China's CNPC has been involved in pipeline developments. Petronas was involved in the Chad–Cameroon pipeline project.

Asian operators, and in particular Japanese companies, are among the top ocean-bound energy transportation operators in the world. The Japanese may have the most vessels but most Asian countries mentioned above are all highly active in the global oil and gas shipping routes.

One area where Singaporean companies are doing particularly well is the offshore services sector of the market. Companies such as Keppel, Otto Marine and Pacific Radiance operate offshore vessels as well as providing floating, storage and offloading units and various engineering and offshore construction support services.

Undoubtedly, the oil and sector, despite its unpredictability offers massive opportunities throughout the supply chain for Asian companies in general and for specialised Singaporean expertise. Given global energy needs it is an area that will continue to attract interest and investment.

One area that the report comments on is the role of African governments and how they need to provide new investment templates, especially in depressed markets, to match the risk adjusted returns and the project's expected cash flows. This can be done in partnership with multilateral agencies and risk insurers. In other words, to stimulate investment, especially where the production cost is somewhat higher than in other regions, governments would need to look at new risk sharing structures. Nonetheless, oil and gas remain an important industry in Africa that Singaporean companies and others in the region need to focus even more attention on. ■