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UNDIVIDED SUDAN'S OIL PARTNERSHIP WITH INDIA

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Abstract

The expansion of Sudan's oil sector coincides with rising Asian interest in the oil fields of Africa that is located in the extended supply zone of the present world oil regime. Asian powers have over the years acquired extensive knowledge and experience in domestic oil production; yet that failed to meet their constantly rising energy demands triggered by economic globalsiation. The increasing external dependence pushed these countries to enter into transnational oil ventures. The 9/11 terrorist attack has further propelled the oil-seeking countries to diversify their supply lines by drifting away from West Asia and getting closer to Africa. Asian quest for African equity oil has consequently concretised the Afro-Asian interdependence that has evolved in the post cold war economic world order in terms of trade and investment partnership. As an extension of such economic complemtarity, the current regime in Sudan has diversified the pattern of its transnational production linkage through consolidation of multiple Asian participations in its oil sector. The shift that Sudan's foreign oil policy behavior has undergone is due to the withdrawal of major Western oil firms, which have initiated the exploration and production activity in its oil field. The underlying rationale for such approach, therefore, lies in the intents to ensure that Sudan's oil production remains less dependent on the partnership with West, and at the same time to avoid a situation where any single Asian player does monopolise its oil sector. As a result, Asian orientation has become the hallmark of the transnational partnership that Sudan is currently forging for its oil production. This article looks at Sudan's partnership with India in the broader perspective of Indian interest in African oil. Firstly it taken into account India Presence in Sudan Oil field. Then it explore India Interestent in African Oil field.. Then it examines Sino-Indian Engagement in Sudan's Oil Sector

Keywords: Natural Resource, Foreign Policy, Oil, African Nations, Conflict

India Presence in Sudan Oil Field

One other Asian company actively engaged in Sudanese oil extraction is the Indian oil behemoth ONGC. With operations spanning upstream and downstream, ONGC is India's

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largest integrated oil and gas organization. The State-owned oil company purchased Talisman's 25% stake in the GNPOC in March 2003. In addition, ONGC acquired OMV's

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stakes in Blocks 5A and 5B that year. OMV is an Austrian corporation. Additionally, the oil business has taken action to obtain a stake in Sudan's Blocks 3, 6, and 7 (Oil and Gas Update India, 2004). Additionally, in late 2005, ONGC and the Sudanese government inked a contract for the construction of an additional oil pipeline that would connect the Khartoum Refinery to Port Sudan. (Patey, 2006).

The ONGC acquired Talisman's 25 percent participating interest in the GNOP on March 12 in 2003. The GNOP is located in the Muglad Basin, around 435 milessouthwest of the capital Khartoum, comprising Blocks 1, 2 and 4. The nearest oil export point from the field is the PortSudan on Red Sea, which is around 930 miles from the oil fields. The project is divided into upstream and downstreamsegments. The upstream segment is covered under an EPSA,while the downstream part is covered under the COPA (IAGS, 2004). The consortium members are CNPC with 40percent participating interests, Petronas with 30 percent, ONGC with 25 percent and Sudapet with 5 percent, as illustrated in the Table – 4.3 below.

TABLE 4.3

BLOCKS 1, 2 & 4: CONSORTIUM STRUCTURE

Company	*Participating Interest*
ONGC	25 percent
Petronas	30 percent
CNPC	40 percent
Sudapet	5 percent

Source: ONGC Videsh Limited

There are more than a billion barrels of oil reserves in the project. The daily oil production on the plateau is approximately 3,000, 000 barrels. The project includes a 504-kilometer (28-inch) pipeline that runs from Port Sudan to the Heglig oilfield. The maritime terminal, which

can now hold 3.2 million barrels, is located at Port Sudan. The commercial arrangements entail a $720 million upfront investment. GNOP is operated by the GNPOC, a corporation that was established on June 17, 1997, in accordance with Mauritius legislation. The consortium participants' ownership stake in GNPOC is equal to that in the production-sharing and transportation agreements. 61 ONGC employees are seconded to middle and upper level roles at GNOP. The reserves established by the GNOP exceed one billion barrels. The productions from 10 fields were about 285,000 barrels of oil per day in the year 2004. The crude from oil fields is pumped through a 28" wide and 1504 kilometers long buried pipeline to Port Sudan Marine Terminal. The oil is shipped from Port Sudan (IAGS, 2004).

Following ONGC's entry into Undivided Sudan's oil industry, the then Indian President Dr. A. P. J. Abdul Kalam had visitedUndividedSudan in October 2003. For Lt Gen Omar Hassan Ahmedal- Basheer—once accused of sheltering Osama bin Laden—that was a great vote of confidence (Indian Express, 2003). Later, in December 2003, Dr. Awad Ahmed El Jazz, the Sudanese Minister of Mining and Energy, traveled to India with a high-level team. Dr. Awad Ahmed El Jazz was welcomed to the audience by Dr. A.P.J. Abdul Kalam, who spoke about his historic visit to Undivided Sudan in October 2003, which marked a turning point in the two nations' bilateral relations. Awad Ahmed El Jazz and Ram Naik, the former Indian Minister of Petroleum and Natural Gas, reviewed the progress made at their level on a regular basis while keeping in mind the huge potential for bilateral cooperation between the two nations in the hydrocarbon sector. A Joint Working Group (JWG) was established by the two Ministers to examine cooperation in the hydrocarbon sector.The two Ministers decided to constitute a Joint Working Group (JWG) to review the co-operation in hydrocarbon sector between the two countries at official level. In a joint statement issued, the Ministers said that theJWG would pursue continued cooperation between the twosides in order to enhance and consolidate such cooperation(ONGC Videsh Limited, 2003).

Both parties noted and conveyed their satisfaction with the strategic alliance in the oil industry. The two ministers acknowledged ONGC's strong performance in the GNOP. The Sudanese side expressed gratitude for ONGC's role to delivering reliable aid in the areas of health care, information technology education, and contemporary, self-sufficient farming practices in Undivided Sudan. The Indian side informed the visiting Minister of the current state of the proposed participation in ONGC's other exploration blocks in Undivided Sudan as well as Blocks 5A and 5B. Dr. Awad Ahmed El Jazz praised ONGC's large investments in Undivided Sudan's hydrocarbon industry and gave the government of Sudan his utmost support. The Indian minister was invited by the visiting dignitary to travel to Undivided Sudan for the ensuing ministerial level review meeting. (ONGC Videsh Limited, 2003).

Dr. Awad Ahmed El Jazz was invited to the First Oil and Gas Assembly in Goa. The Minister, in his address on December 5 in 2003, urged the Industry experts to participate in the growing oil and gas sector of Undivided Sudan. Someexcerpts from his address are:

…….Sudan is the largest country in Africa, full of resources.Of all the resources, oil and gas resources are the biggest. It aplace where we feel that the cost of production is very low andthe rate of success of exploration is very high and the quality ofoil is very sweet and free of sulphur. May be, that gives me areason to invite everybody to come and share with us the re-sources we have. Sudan is having a clean and open society. We don't have any problem to share with any company, indi-viduals or group, or any nationality. This is an open invitationto come and see where we are and what we are doing. I inviteeveryone to come see with your own eyes and get the informa-tion from official and unofficial groups. We are very happy that we started this kind of co-operation, with our friends fromIndia, and I am looking forward to broaden the relations. We started the oil industry in Sudan four years ago, and now weare hitting 280 thousand barrels a day, and by 2005 we targetto hit 500 thousand barrels plus a day. It is a place of action,and I repeat and invite all of you to come and join us. We started the oil industry four years back, we built the pipeline of1610 kilometers length in eleven months, a

complex Refinery in 18 months and built a shipyard for crude export and now we are completing another pipeline of 700 kilometers. We areplanning to upgrade the Refinery from 50,000 barrels a day to100,000 barrels a day. Also, we are negotiating with our friendsfrom India to build a product pipeline from Khartoum, CapitalCity to seaport for exporting the products. Now we are tender-ing for another pipeline of 1050 kilometers length, which is supposed to be completed by the end of next year. With all these activities going on, we have a number of companies around in Sudan and we still have areas free for concessioning.This is the time for me to invite you all and we hope to have suggestions and offers from you. We are inviting the expertson purely open competition, and whose of you who bring goodoffers are welcome, and we are ready to build a future for mu-tual benefit to all of us……. (Asian Age, 2003).

On May 15, 2003, the first 600,000 barrels of crude oil were delivered to the Mangalore Refinery and Petrochemicals Limited (MRPL) following ONGC's acquisition of a participation interest in GNOP.9. The ship had sailed from Undivided Sudan, and the then-Indian Deputy Prime Minister L. K. Advani, the Petroleum Minister Ram Naik, and some forty members of the Consultative Committee of the Petroleum Ministry had traveled to Mangalore to greet it. (Telegraph, 2003). The crude shipments have since been made to Sinochem, Viotal, Mitsubishi and Trafigura. The ONGC was entitled to around three million tones of crude from the project (ONGC Videsh Limited, 2004). The ONGC also acquired 24.125 percent and 23.5 percent participating interests in Blocks 5A and 5B respectively from Austrian company, OMV, and the deal was signed on May 12, 2004 (ONGC Videsh Limited, 2006).

TABLE 4.4

BLOCK 5A: CONSORTIUM STRUCTURE

Company	Participating InterestONGC	24.125 percent
Petronas	67.875 percent	
Sudapet	7 percent	

Source: ONGC Videsh Limited

Petronas and Sudapet have a joint venture operating business called WNPOC, which runs the Block. Block 5A comprises both unknown and discovered reserves, covering an area of approximately 20,000 square kilometers. The collaboration has conducted extensive exploratory drilling throughout the Block, leading to the discovery of two fields: Thar Jath and Mala. The field of Thar Jath is now undergoing development. Beyond Thar Jath, further regions in Block 5A are anticipated to be developed in the future. Along with the development of Thar Jath and Mala, there is a lot of exploration effort in the Block to find new fields and define more prospects. (ONGC Videsh Limited, 2006).

TABLE 4.5

BLOCK 5B: CONSORTIUM STRUCTURE

Company	Participating Interest	ONGC	23.5 percent
Petronas	41 percent		
Lundin Petroleum	24.5 percent	Sudapet	11 percent

Source: ONGC Videsh Limited

The WNPOC is the operator of Block 5B also. The Block5B is spread over an area of 20120 square kilometers and operations could not be carried out in the block due to security reasons, until the implementation of the peace agreement (ONGC Videsh Limited, 2006).

The WNPOC had organised its first oil celebration for Thar Jath Field in Block 5A on June 26 in 2006. The ceremony was represented by Dr. C M Lamba, Director, ONG BV, a subsidiary of the OVL. The inauguration ceremony was attended by Minister of Energy and Mining Dr. Awad Ahmed Al-Jaz, Minister of Transport Eng. KhualManiang, State Minister of the Presidential Palace Telary Daeng and Chairman of Energy Committee, Husien Morniot. The other dignitaries having attended the event were Dato' Mohd. Zamri Mohd. Kassim, Malaysian Ambassador to Undivided Sudan, Dr. Omer Mohd. Kheir, Secretary General MEM, Awad El-Karim Mohamed Kheir, Director General, Oil Exploration and Production Authority (OEPA)and Hashim Wahir, Chairman, Petronas (Sudan), and Hj. Nusral Danir, Senior General Manager (International Operations), Peremba (ONGC Videsh Limited, 2006).

The Thar Jath field is located about 900 kilometers southof Khartoum within the prolific Muglad Basin. The fieldmeasures 13.5 by 4 kilometers in size. The first oil celebration marked another milestone for the oil industry in Undivided Sudan. The completion of that project and the development of the Mala Field were estimated to boost the oil production to about 50,000 barrels of oil per day by the end of year 2006. Treated crude oil was to be exported from Thar Jath througha 172 kilometers long and 24" wide export pipeline which linked the Central Processing Facilities (CPF) to the existing GNPOC Pump Station No. 1 at Heglig. The first produced oil from Block 5A was to reach Port Sudan in August 2006 for its first commercial lifting (ONGC Videsh Limited, 2006).

The ONGC had signed a $194 million contract withthe MEM on June 30 in 2004 for construction of 741 kilometers long and 12" wide multi-product pipeline. That was the maiden engineering & construction project of the Indian company abroad. The proposal of the ONGC was approved by the Cabinet Committee of Economic Affairs (CCEA) of Indian Government on June 24 in 2004. Theproject envisaged laying of a pipeline system from Khartoum Refinery to Port Sudan for evacuation of the petro-products from Khartoum Refinery. The pipeline system was designed for a throughput of 0.826 millionmetric tons per annum (MMTPA) in phase I and 2.54 MMTPA in phase II, of MO Gas & Gas Oil. The pipeline was to be laid in the existing ROW (Right of Way). The project was planned to be undertaken with the Design, Engineering and Project management support of ONGC's Engineering Services, Mumbai, having an experience ofconstruction and maintenance of its

own existing onshoreas well as offshore pipeline network of over 10,000 kilometers at home (ONGC Videsh Limited, 2004).

The Indian government has significant influence on ONGC's strategic behavior because it is a state-owned company. Internally, the Indian government is in charge, even while external variables in Undivided Sudan and the global environment, like insecurity and the price of oil, may give the corporation little option in how it operates. Given that India depends heavily on foreign reserves, one of the government's main policies is to diversify and increase the country's supply of foreign oil. (Business Standard, 2002). Consequently, the oil firm has established the objective of doubling its reserves by the year 2020, pursuing internationaloil proactively (ONGC, 2005). This priority is visible inUndividedSudan, an increasingly essential source of oil for India,saving the country $400 million every year (Outlook, 2002).Moreover, ONGC continues to expand its operations in Undivided Sudan and seeks to acquire further oil concessions (Dow Jones, 2004). The fact that the Indian oil company is a relatively young player in the global market contributes to its eagerness to grow its overseas activities. Thus, ONGC was looking for more in Undivided Sudan than just oil resources; it was also looking for an opportunity to learn about exploration and production. The first delivery of Indian-owned crude from a foreign oil source occurred in 2003 when crude oil was shipped to India by the GNPOC (Oil & Gas Journal, 2003). Even though ONGC is a sizable and proactive company, the global oil market still considers it a new player. Thus, another factor that explains its strategic behavior is the necessity to draw lessons from operations in Undivided Sudan. ONGC's overall conduct is significantly shaped by the impact of the Indian Government. (Patey, 2006).

ONGC entered Undivided Sudan with caution, despite the fact that the company's present expansion shows how much the Indian government needs Sudanese oil. The government's reluctance to invest in the war-torn nation because of the insecurity the corporation would encounter there caused a delay in the decision to join the country. (Outlook, 2002). The demands of those in government who thought the investment was a bad choice had to be met with political risk insurance. When the oil company first entered the African nation, it obtained insurance from the Sudanese government and the Multilateral Investment Guarantee Agency of the World Bank. (Economic Times, 2002), and afterwards when making an investment in the oil pipeline development project from the Export Credit Guarantee Corporation (Financial Express, 2004). In order to lower political risk, the Indian government further increased pressure on ONGC to form joint partnerships with other oil firms. (Telegraph, 2004).

Along with providing cosmetic limbs for landmine victims, the ONGC also established two hospitals, an ambulance service, and other facilities for the villages surrounding its oil concessions in an effort to improve relations with the community. The peace agreements between the SPLA and the government in Khartoum allowed the Indian oil company more freedom to grow. ONGC entered Undivided Sudan in spite of the civil war's instability, but it continued to influence the oil company's strategic decisions by driving it to take steps to strengthen its financial position. But as ONGC established itself in Sudan, there was less resistance to more funding for the Indian government. The expanding political and economic

ties between the governments of Undivided Sudan and India provide more insight into why ONGC has been able to grow so quickly in the African nation. In order to first obtain Talisman's interest in the GNPOC, the Indian government made vigorous diplomatic efforts with the Sudanese government. (International Petroleum Finance, 2003). From thispoint on

bilateral cooperation between India and Undivided Sudan grew significantly. India has invested in textiles, information technology, telecommunication, and other infrastructure projects in Undivided Sudan (Financial Express, 2004). Furthermore, the Indian Government has provided millions of dollars in credit to Undivided Sudan to engage in more business opportunities with Indian companies (UNI, 2005).

In addition to improving economic ties, ONGC's investment has also boosted political ties between Undivided Sudan and India. India has backed the Sudanese government's stance in the Darfur issue, which raises the possibility of economic sanctions from the UN being imposed on Undivided Sudan due to human rights violations by forces loyal to the country's Western province. (UNI,2005). Additionally, India has agreed to participate actively in the UN Mission in Undivided Sudan, which aims to broker a settlement between the SPLA and the Khartoum government. The ONGC's introduction into Undivided Sudan was facilitated by the improved political and economic ties between Undivided Sudan and India, which also serve to further the company's growth in the country's oil sector. (Patey,2006).

Political risk was an inevitability for all foreign oil companies operating in Undivided Sudan due to the ongoing civil war. But there was also a specific political risk for Western oil companies, who were under pressure to pull out of Undivided Sudan due to criticism from civil society organizations and international human rights organizations. This element had no bearing on ONGC or other Asian State-owned enterprises. Large Western oil firms were therefore less of a rival to ONGC, with some choosing to withdraw from Undivided Sudan as a result of international NGOs' condemnation and others choosing not to pursue an investment because of the potential political fallout. (Financial Times, 2002). Furthermore, the presence of Asian oil majors, such as Petronas andCNPC, demonstrated to the Indian company, that the investment in Undivided Sudan was a plausible venture (Telegraph, 2004). The ONGC has also stated that it hopes to strengthena growing relationship with co-partners, CNPC and Petronas, through expanding its operations in Sudan (Financial Times, 2003). Thus, developments in the Sudanese oil industry, such as the competitive positioning of foreign oil firms, further explain the strategic behaviorof ONGC in Undivided Sudan (Patey, 2006). As well, the ONGC is operating in Egypt and Libya in North Africa (ONGC Videsh

Limited, 2008).

Indian Interest in African Oil

With India diversifying its energy sources globally in recent years, Africa has seemed to be one of the main draws for Indian oil corporations. Approximately 25% of India's current imports of crude oil originate from sub-Saharan Africa. Most of this is from Nigeria. Additionally, India has chosen to engage in African equity oil. India has so far concentrated on the African nations of Ghana, Angola, Undivided Sudan, and the Ivory Coast. Equatorial Guinea, Chad, and Mauritania are the other nations of relevance in the Gulf of Guinea region of West Africa. (Beri, 2007).

Several factors are driving India's interest in African oil. First off, African oil, especially that from the Gulf of Guinea, is low in sulfur and of excellent quality. Secondly, the majority of the recently made discoveries are located offshore, far from any possible conflict on land. Thirdly, unlike Saudi Arabia and certain other Gulf states, foreign engagement is allowed in Africa's oil market. Fourth, the only nation that belongs to OPEC, which places restrictions on member nations' output levels, is Nigeria. Lastly, India has historical ties to African nations dating back millennia. India has combated colonialism and apartheid on the continent in unison. Africa and India have long been allies in development and peace. India and Africa are also connected by the Indian-origin individuals who arrived on African soil in the middle of the 19th century. Additionally, both have comparable experiences with nation-building. Therefore, India and the African nations share a special link that facilitates the development of energy ties. (Beri, 2007).

Thus, the vital field of energy is one area in which India and African nations are interdependent. Due to the increasing demand on the energy sector, India has been developing a complex plan for energy purchase through energy diplomacy. India's domestic resources cannot keep up with such demands. Nigeria, the Persian Gulf, and South-East Asian nations—especially Indonesia—are probably going to be India's short-term energy suppliers. However, over time, Turkmenistan, Bangladesh, and Qatar are also probably going to become India's future energy supply partners, particularly with regard to natural gas. For the time being, Egypt keeps exporting petroleum products to India. (Harshe, 2002).

Nigeria and India inked a significant oil contract in 2000. According to the agreement, Nigeria was to consistently provide India with oil at a rate of 20,000 barrels per day for an entire year. Analysts viewed the hydrocarbon agreement between the two nations as a significant "building block in India's quest to achieve energy security," entailing an annual supply of 6 million tons. Similarly, collaborative working groups between South Africa and India have been in operation since 1998 to further cooperation between the two nations in

the oil sector. India and South Africa now have stronger energy links thanks to ONGC's involvement in the upstream industry in South Africa. Moreover, the two nations have agreed to work together to seek for oil in third-world countries. Besides, the two countries have decided to jointlyexplore oil in third countries (Harshe, 2002).

India, the world's sixth-largest oil consumer, imports 70% of its crude oil, with the Gulf region accounting for over 65% of this total. The Caspian area, Southeast Asia, Australia, Africa, and Europe all have access to alternate energy sources. In 2000–01, India contributed 3% of global primary energy consumption and 12.5% of the Asia–Pacific region's total primary energy consumption. (BP, 2001). Crude oil from Africa and Europe has a reduced sulfur content and is more environmentally benign, making them both highly strategic and economically necessary import possibilities. (Prabhakar, 2005).

India's primary energy utilisation mix, for the commercial sources, is as follows: coal approximately 50 percent, oil 32 percent, gas 15 percent, hydel 2 percent and nuclear 1 percent. India's oil reserves amount to 5.9 billion barrels (0.5 percent of global reserves) with total proven, probable, and possible reserves close to 11 billion barrels. By 2020, 91.6 percent of India's oil imports are expected to be required. The International Energy Agency's World Energy Outlook states that by 2010, there will be 3.2 million barrels of oil consumed daily. The amount of gas consumed is expected to increase and reach 1.6 trillion cubic feet in 2010. Indonesia, Algeria, Malaysia, Qatar, Australia, Oman, United Arab Emirates (UAE), Nigeria, Brunei, and other countries are global providers of liquefied natural gas (LNG). (Prabhakar, 2005).

Saudi Arabia, Vietnam, Australia, Myanmar, Bangladesh, Iran, Iraq, Qatar, Kazakhstan, Syria, Egypt, Libya, Algeria, Senegal, Nigeria, Undivided Sudan, Angola, and West Africa are among the countries in which India is searching for oil reserves. 732 million metric tons of crude oil are known to exist. There is a about 107 million ton demand compared to the approximate 33 million tons of production. India has developed a strategy by outlining the parameters of its hydrocarbon policy in the 2025 time frame, formally known as Hydrocarbon Vision 2025, in light of the requirements. In terms of global engagement, the vision promotes linkages of long-term nature by signing long-term deals andacquiring stakes in overseas projects (Prabhakar, 2005).

India has inked two agreements with Qatar and Iran, each lasting 25 years. The ONGC is in talks to purchase out interests in oil resources in more than a dozen nations, including Australia, Indonesia, and Russia. The company plans to invest more than Rs. 6,000 crore a year in purchasing oil properties overseas. Nine nations—Vietnam, Russia, Libya, Syria, Iran, Iraq, Undivided Sudan, the United States, and Myanmar—are home to the ONGC's oil and gas operations. The organization is now seeking to acquire "Stakes in oil propertiesin South America, Central Asia, Australia, Indonesia, Russia and Middle-East" (Prabhakar, 2005).

It makes sense that the three Asian players would be aggressively pursuing their interests in

the Gulf market when considering the demand and supply matrix. It would be debatable if their search will increase the level of rivalry and conflict. The market seems to be driving the definition of the parameters of the new regime in the shifting setting where hydrocarbons, although still a strategic community, are entering the marketplace to be sold as "just another commodity." One conceivable scenario is that, as a result of Asia's massive growth in energy demand over the next 20 years, major regional powers like China and India would be forced to accept higher levels of cross-border energy dependency. This would require leaders who have long been accustomed to viewing energy primarily as a security vulnerability to adopt a new cultural mindset. So, the option to switch from purchasing natural gas via LNG ships to installing long-term pipelines that establish long-term energy interdependence exists. (Prabhakar, 2005).

Public sector oil and gas corporations should be reinforced, given autonomy, and be free from political meddling and bureaucratic delays in their day-to-day operations, as per the requirements of energy security and national interest. firms like ONGC, Gas Authority of India Limited (GAIL), and other petroleum firms have been unable to participate more effectively in international affairs due to an overabundance of bureaucracyDue to various political and administrative restrictions on these enterprises' ability to operate, opportunities to invest overseas, purchase oil equity, and embark on domestic initiatives have been lost. In order for India's public sector enterprises to be more competitive with Western oil firms, they must be strengthened even as the country creates big private sector companies in the oil and gas sector. (Prabhakar, 2005).

The security of energy supply, the safety of land-based and underwater pipelines, the safety of sea lanes for communication, the security of supply contracts, insurance against sharp price fluctuations, investments in oil equity, and, lastly, matters concerning environmental security, the ecological aspect of energy security, and worldwide disparities in energy consumption are the main concerns of the external dimension. India has relatively small oil and gas reserves of its own, despite the fact that these resources are abundant in the region around the Indian subcontinent, from the Persian Gulf to Southeast Asia. India will therefore undoubtedly become more dependent on imports in the years to come. India's reliance on imports is predicted to reach 80% for crude oil and 77% for natural gas by the year 2010 (TEDDY, 2003/2004). The Persian Gulf is anticipated to supply the majority of the needs, although India has been expanding its pool of suppliers and purchasing oil equity elsewhere. (Prabhakar, 2005).

While a more diversified portfolio of suppliers is desirable, the fact remains that the bulk of India's requirements would come from its neighborhood, includingthe Gulf, Iran, Central-Asia, Southeast Asia and Bangladesh.The objective of stabilising the supplies requires a diversification of source and ensuring the security of key source. There are a number of options for policy, including investing in oil equity, accumulating sufficient strategic oil reserves, signing long-term and future contracts, investing in the necessary infrastructure to handle the entire process from source to destination, and, lastly, guaranteeing the security of

supplies both within the nation and between the source and destination. These goals are to be achieved by a variety of policy tools, such as enhancing the infrastructure for ports, storage facilities, and materials processing as well as giving the coast guard and naval forces the authority to better police coast lines and sea lanes.
(Prabhakar, 2005).

India's increasing dependence on external energy source is an extension of the growth in demand for energy in Asia that has been forecast to surpass growth rates in all other regions (MacDonald & Wimbush, 1999). By 2020, the world is projected to consume three times the amount of energy it used before the 1973 oil crisis (Energy Information Demonstration, 1998). Nearly half of the world's predicted incremental demand, according to the US Energy Information Agency, is expected to occur in developing Asia, which is mostly made up of China, India, and the ASEAN nations.10 Asia is predicted to experience the biggest rise in oil demand globally. It is anticipated that the average daily oil demand in the region in 2000 will be 13.3 million barrels, which is comparable to the 14.3 million barrels per day in Western Europe. By 2020, experts predict that Asia would consume 28.6 million barrels per day, more than the US's anticipated daily consumption of 924.4 million barrels. This large growth will be driven by China's oil demand, which is expected to expand at a rate of about 5% annually. By 2020, China's oil consumption is expected to be approximately 9.5 million barrels per day (Fesharaki, Banaszak & King, 1998). As Asian energy demand grows, its regional resources, particularly oil resources, are being depleted. Asa result, Asia's dependence on extra-regional imports would rise. Dependence on oil imports is expected to rise to approximately 77 percent by 2010 (Fesharaki, Banaszak & King, 1998).

India, the sixth-largest energy user in the world, has not only been impacted by these energy dynamics but has also continued to play a significant role in the developments that have been mentioned. Although India has a wealth of energy resources, it does not have significant domestic gas and oil supply. It is anticipated that demand for these commercial fuels will continue to expand at this rate into the next century, with annual growth of about 5%. More than half of India's energy needs are met by coal, the country's most plentiful domestic energy resource. India must import over 60% of its oil but only imports 20% of its coal to meet its whole energy needs. (EIA, 1998).

Asia has historically consumed the most energy worldwide. By 2010, it's predicted that Asia's reliance on oil imports will increase to almost 77 percent. The International Energy Agency (IEA) estimates that developing Asia, which includes China, East Asia, and South Asia, is responsible for over 25% of the world's GDP and primary energy consumption. The main energy demand in this region is expected to rise by 42% between 2002 and 2030, according to IEA projections. By 2030, the region's share of the world energy market would be close to one third. By 2030, this region's oil consumption would make up 26% of the

global demand. The region's energy security is expected to be significantly impacted by the predicted growth in import dependency on oil, which is expected to expand from 43% in 2002 to 78% in 2030. Of this, China and India will import more oil, increasing their reliance from 34% in 2002 to 74% in 2030. (Prabhakar, 2005).

As per multiple studies, the Caspian Sea holds 26% of the world's oil reserves, Africa has 8%, and the Gulf contains 66% of the world's oil reserves. Nigeria, the continent's top crude oil exporter, plans to boost daily production from 2.2 million to 3 million barrels in 2005 and 4.42 million barrels by 2020. After fifteen years of civil conflict, Angola, the continent's second-largest producer, resurfaced in 2002. It planned to increase production to 3.28 million barrels per day by 2020, doubling it. Equatorial Guinea now holds the record for the most oil prospecting permits, shared only by Angola. With 740,000 barrels per day, it might rise to become Africa's third-largest producer during the next 20 years, surpassing Gabon and Congo. (Prabhakar, 2005).

The world has witnessed a significant shift in energy consumption patterns since the 1990s. The share of developing countries in global energy consumption hasincreased noticeably, compared to the 1970s. In 1971, Asia, including the OECD Pacific region, accounted for only 14 percent of the total world demand for energy. Today its share has doubled to 28 percent. In fact, Asia has emerged as the largest oil consuming region in the world, one percentahead of North America. In 2000, South Asia accountedfor approximately 3.9 percent of the world's commercial energy consumption, up from 2.8 percent in 1991. By

2010, the energy use in developing Asia, including China andIndia, but excluding Japan, Australia and New Zealand, is projected to surpass consumption of all of North America (Horsnell, 1997).
According to the *World Economic Outlook,* Asia's share of oil in the global total would continue to increase and touch 35 percent by 2020. The increase would be evident mainly in China, India and Southeast Asian countries. In volumetric terms, this means that demand for energy in Asia, which was 19 million barrels per day in 1997, would grow to over 28 million barrels per day in 2010 and more than 37 million barrels per day in 2020 (World Economic Outlook, 2003). However, given the limited and declining production of oil in the region, the incremental demand foroil are to be met with imports (Biswas, 2005).

Numerous opportunities in the hydrocarbon sector have arisen as a result of the trends of cooperation and collaboration between States and multinational corporations. The discussion of energy security in the 1990s underwent a substantial shift. The government's resource strategies during the 1970s and 1980s were influenced by oil shocks and concerns about a global scarcity of supplies, whereas today's energy security calculations are different. The idea that rivalry for energy resources, driven by a sense of scarcity, could lead to conflict is not the primary worry of states at the moment. Instead, the region's energy security may be affected by conflict stemming from changed trade patterns, a greater reliance on oil from West Asia and, consequently, on free sea lanes, and evolving strategic alliances. In fact, some

academics contend that Asian states' shared problem of becoming more dependent on outside energy sources will encourage "cooperation" rather than "competition." (Biswas, 2005).

For example, India is one of Asia's leading energy-seeking nations. It is rather deficient in oil and gas resources, while having large coal deposits. Its 5.9 billion barrels of oil reserves make up less than 0.5 percent of the world's total reserves. Most of India's oil deposits are found onshore in Assam and offshore near Bombay. Seventy percent of India's oil comes from imports, with West Asia providing the majority due to the country's stagnant crude production. Furthermore, the World Energy Outlook estimates that by 2020, India's reliance on oil imports would increase to 91.6 percent. Thus, India has implemented significant

changes in the hydrocarbon industry to improve energy security. Among these is the involvement of the private sector—both domestic and international—in both upstream and downstream operations. The government of India first considered the establishment of a deregulated, market-driven oil and gas industry in the early 1990s.
(Avinash Chandra, 2001).

India is also looking at the possibility of obtaining oil in Southeast Asia, Africa, and Latin America. It has been working hard to improve its oil security since 2003 by investing in the oil fields and taking quick action to increase domestic gas and oil production. The State-owned ONGC was recently given permission by the Indian government to participate in foreign projects for the discovery of oil and natural gas. (ONGC, 2004; Harshe, 2002).
In order to improve India-African collaboration in the areas of trade, investment, technology transfer, information technology, health care, etc., the Indian government created the "Focus Africa" program in 2002–2003. 11 percent of the world's oil production and 7% of its oil reserves are found in African nations. Seven billion of the eight billion barrels of crude oil reserves found globally in 2001 were located in West and Central Africa. By working in South Africa's upstream industry, the ONGC has helped to build energy connections between the two nations. In the Egyptian region of North Ramadan, the ONGC has also secured an oil field. Additionally, it has agreed to investigate oil in Ivory Coast.
(Biswas, 2005).

The old link between India and Africa has taken on a new dimension because of the energy. Although North African nations like Algeria and Libya were major producers of oil for most of the 20th century, the African continent as a whole has only recently gained recognition as a major producer of gas and oil worldwide. 9.3 million barrels of oil were produced daily in Africa as a whole in 2004, making up nearly 12% of global production. Only the countries of the Commonwealth of Independent States (CIS) have experienced the remarkable output increase (over 51 percent) that sub-Saharan Africa has experienced over the past ten years. Africa generated over 21,400 million cubic feet of natural gas per day in 2004, which made up 7.5% of the world's total gas production. Over the last 10 years, Saharan Africa and sub-SaharanAfrica have recorded significant increase in gas production,of 70 percent and 89

percent respectively (Ahmad, 2005).

The fact that major new discoveries are consistently made, new acreages are constantly offered by various nations, and active production is backed by infrastructural development attests to Africa's promising hydrocarbon potential. Nigeria has been and is anticipated to continue to be the continent's top producer. This nation started producing oil in 1958 and joined OPEC in 1971.In terms of oil reserves, Nigeria produces more than 2.4 million barrels per day today. At the end of 2004, Nigeria's share of African reserves stood at 35,651 million barrels, or 34% of the total reserves of 105,000 million barrels. With 35% of the continent's total gas reserves (455 trillion cubic feet) as of the end of 2004, Nigeria thus controls a large portion of the African gas market.
(Ahmad,2005).

Libya, Algeria, and Egypt are the main participants in the African hydrocarbon market in North Africa. An estimated 46 billion barrels of oil are stored in the North African countries, of which 65 percent are in Libya and 20 percent are in Algeria. Libya started producing oil in 1961 and is currently ranked third in Africa with 1.6 million barrels produced per day. Algeria is the second-most productive country in Africa, after Nigeria. Libya has released a number of acres for E&P contracts since the sanctions were recently lifted, piqueing interest from around the world. Egypt is currently a small oil producer, using the majority of its oil for domestic purposes. But fresh gas finds in North Africa have drastically changed the hydrocarbon landscape in the area. An estimated 8 trillion cubic meters of gas are found in North Africa, with Algeria accounting for 957 percent of the region's reserves, Egypt contributing 21%, and Libya contributing 16%. Algeria is set to become a major participant in the global energy security landscape, ranking third in the world after Canada and Russia in terms of gas exports. It was the first LNG exporter in history and rose to prominence as the world's biggest LNG producer in the middle of the 1970s. Additionally, Algeria participated in the establishment of the first international gas pipeline. (Ahmad, 2005).

Additionally, Egypt is increasingly recognized as a major global supplier of natural gas.

Egypt initiated the development of its LNG capability after higher gas reserves were found in the 1990s. Egypt is projected to produce 17 billion cubic meters of LNG annually by 2006; this figure may rise in subsequent years. There are proposals to expand this pipeline to Lebanon, Syria, and potentially even Turkey and Europe. Currently, a pipeline is delivering Egyptian gas to Jordan to power power installations. (Ahmad, 2005).The main producers in sub-Saharan Africa are anticipated to be Angola, Nigeria, Equatorial Guinea, and Ivory Coast in the near future, whereas Mauritania, Undivided Sudan, and Chad are the main producers in sub-Saharan Africa. The first commercial discovery of oil was achieved in the 1950s, even though Angola had started oil research in 1910. Despite the fierce civil conflict,

the nation saw a great deal of onshore exploration during the 1980s. Major international oil corporations began deepwater and ultra-deepwater drilling in the 1990s, with great success. A new source, Mauritania, was scheduled to start production in 2006.
(Ahmad, 2005).

Over the past ten years, intensive oil and gas exploration has resulted in a 25% rise in Africa's oil reserves. Seven percent of the world's oil production is imported by the United States, which gets 15–17 percent of its supply from West Africa; by 2015, it wants to raise this to 25 percent. The total estimated proven, probable, and potential reserves of oil and natural gas in West Africa is 35 billion barrels of oil and 151 trillion cubic feet, respectively. Nevertheless, despite significant recent discoveries, a large portion of sub-Saharan Africa is still unexplored because to conflict, unstable political environments, and physical access issues. (Ahmad, 2005).

The U.S. Geological Survey estimates that there may be up to 72 billion barrels of undiscovered oil in West Africa. Sub-Saharan reserves may amount over 121 billion barrels of oil equivalent, which is larger than the combined reserves of North America, Europe, the Asia-Pacific area, and South Asia. Even in nations like Nigeria, Angola, Gabon, and Congo-Brazzaville that have been producing oil and gas for a while, there are sizable reserves, especially in deep offshore waters. Significant promise has been found recently in newly discovered regions in East and Southern Africa, including Ethiopia and Niger. East Africa is a young continent with a lot of promise: It possesses "some of the greatest and most existing

exploration potential on the continent," according to an observer. (Ahmad, 2005).

The United States estimates that, up until 2020, the exploration and production of deep-water and ultra-deep-water development in West Africa would cost close to $110 billion, of which $20–25 billion would go to Nigeria and Angola and the remaining portion to Gabon, Equatorial Guinea, and Congo-Brazzaville. But eventually, these investments would pay off handsomely. Up to 2020, the five major West African producers would bring in a combined $80-900 billion; Nigeria and Angola would receive around 80% of these profits.

The continent of Africa will be significantly impacted politically and economically by the finding of its natural gas potential. A narrow nationalistic and unilateralist approach in the gas sector is not viable and needs to be replaced by regional and supra-regional cooperation due to the technological effort, significant investment required for exploration and development, and transnational nature of gas transportation through pipelines. (Ahmad, 2005).

India's relations with Africa now have a completely new and possibly extremely important dimension because of the continent's huge hydrocarbon potential. India currently has a 70% hydrocarbon deficit, and by 2025, this shortfall is predicted to rise to 85%. Therefore, in

order to diversify its hydrocarbon sources and acquire hydrocarbon assets worldwide through equity participation in developed fields, exploration and production contracts, midstream and downstream joint ventures, and investments, India must engage in proactive oil diplomacy as part of its quest for energy security. (Ahmad, 2005).

throughout recent years, these initiatives have already had some success throughout Africa. Nigeria provides over 12% of India's yearly crude oil demand, making it the country's second-largest supplier behind Saudi Arabia. Purchasing a 25% share in the GNOP in Undivided Sudan was India's first venture into the African equity participation market. Today, the GNOP supplies India with approximately three million tonnes of oil annually. A contract to build a goods pipeline from a refinery in Khartoum to Port Sudan came next. The total amount of money India has invested in Undivided Sudan's hydrocarbon industry is close to $2 billion. In Libya, where they faced fierce international competition, three Indian

companies—Oil India Limited, Indian Oil Corporation (OIL-IOC) combine, and ONGC—collectively won three blocks. This represents India's other recent success. Additionally, the ONGC purchased interests in a few Nigerian E&P blocks. (Ahmad, 2005).

These first achievements serve as the cornerstone of India's significant, long-term involvement with Africa throughout and even outside the hydrocarbon value chain. India can pursue this kind of relationship with ease. Due to its participation in the anti-colonial movement and the success of the Indian Technical and Economic Cooperation (ITEC) program, India enjoys great respect throughout the continent. At least three generations of Africans have had their knowledge base expanded by the program. Beyond these advantages, African nations are increasingly associating the awarding of upstream E&P contracts with the involvement of interested parties in the midstream and downstream sectors (refineries and pipelines) and, more crucially, in economic development projects encompassing the development of domestic infrastructure and natural resources as well as railways. This trend increases the likelihood that Indian efforts will be successful. India is well-suited to tackle these issues thanks to its skills in the hydrocarbon industry and its more than 50 years of national development experience.
(Ahmad, 2005).

A few years ago, the Nigerian Ministers of Power and Steel, Commerce, and Energy, as well as the Chairman of the Nigerian Railway and the Special Advisor to the President for Economic Development, were all part of a composite delegation that India hosted. Over the course of three days, the group expressed its interest in connecting downstream and economic development initiatives, with a focus on power and railways, with Nigeria's E&P contracts. In response to Nigeria's offer, India moved quickly to establish an inter-ministerial task force to investigate E&P ideas in conjunction with particular power and railway projects in Nigeria. The Angolan government has also expressed to India its interest in tying exploration and production (E&P) bids to offers for economic development, specifically the resuscitation of mines and the improvement of the road, rail, and port networks, all of which

have been severely harmed by the protracted civil conflict. (Ahmad, 2005).

In order to deliver natural gas from Iran, Turkmenistan, and Myanmar to its borders, India is currently working on three significant transnational gas pipeline projects. India is therefore in a unique position to take part in pipeline projects throughout Africa. The Egyptian plan to build oil and gas pipelines from Alexandria to the Red Sea would create a new "Suez Canal" for the transportation of oil and gas, giving India and the rest of Asia easy access to North African and even Caspian hydrocarbon resources. This proposal has significant economic and strategic value for both Africa and Asia. (Ahmad, 2005).

In order to address Africa's pressing needs, India can play a significant role in developing the human resources needed to discover and exploit the continent's hydrocarbon potential. Africa Array is a 20-year strategy that aims to improve geophysics education and research while creating a training and research support infrastructure. It is one of several pan-African initiatives in this field that is now in progress. India can contribute to this project in a meaningful way given its seven decades of expertise in the hydrocarbon business and its abundance of research and training facilities.
(Ahmad, 2005).

The vast hydrocarbon reserves in Africa provide the possibility of economic growth and prosperity for a continent whose citizens have endured decades of deprivation, exploitation, and poverty. The difficulties lie in utilizing the energy reserves to produce resources that can be used for infrastructure development, socioeconomic advancement, and human resource development. The continent would be able to achieve the highest standards of success thanks to this empowerment, which are justified by its long history of civilization, the discernment of its leaders, and the genuine desire of its citizens to succeed. India can effectively collaborate with African countries because to its historical ties and experience in both the hydrocarbon sector and developmental challenges.
(Ahmad, 2005).

Sino-Indian Engagement in Undivided Sudan's Oil Sector

Among the several Asian participants involved in Undivided Sudan's oil industry, China and India have drawn comparatively more attention due to their growing importance in the

current global framework. Both nations suffer from an oil deficit and rely heavily on imports of petroleum products. They search for oil fields abroad due to their reliance on outside sources to guarantee a consistent supply of energy resources. As they establish themselves as important Asian partners in the region to take part in transnational oil production, Africa, notably Undivided Sudan, has become a negotiation venue for both in their quest for energy resources. Since experience in domestic oil production has enabled both China and India to negotiate for African equity oil, Table - 4.6 below gives a comparative profile of the two countries in their respective domestic oil sectors.

TABLE 4.6

CHINA AND INDIA: COMPARATIVE OIL PROFILE

Country	*Proven Reserve*	*Production*	*Consumption*	*Net Imports*	*Refining Capacity*
China	18.3 Billion Barrels	3.62 million barrels per day	6.53 Million barrels per day	2.91 million barrels per day	4.65 million barrels per day
India	5.4 Billion Barrels	838.9 thousand barrels per day	2,524.7 Thousand Barrels per day	1,685.8 thousand barrels per day	2,254.6 thousand barrels per day

Source: Energy Information Administration, US Department of Energy,2006

Similar to certain other foreign oil areas, the involvement that two Asian partners develop with one another in the Sudanese oil sector is a form of competitive cooperation. Both of them are situated on the extended demand side of the current global system, which puts them in competition. However, they collaborate because they are relatively recent entrants into the globalized world order, in which the US and Western European nations currently hold the dominating positions in the demand zone. Therefore, if China and India's engagement in the

current diverse global regime is characterized by competitive collaboration, Undivided Sudan stands out as a key oil field to support this dynamic component of the larger process of oil globalization. GNOP is a case in point, sinceCNPC and ONGC operate in partnership in this project that produces oil from the most commercially lucrative oil fields at Blocks 1, 2 and 4 in Undivided Sudan.

In summary, there is a correlation between the growth of the oil sector in Undivided Sudan and the increasing interest in African oil by Asian countries. Asian nations have accumulated vast knowledge and experience in producing oil domestically over the years, but this hasn't been enough to keep up with their ever-increasing energy needs due to globalization of the economy. These nations were forced to engage in international oil projects due to their growing need on outside assistance. The September 11, 2001 terrorist attacks have incentivized oil-seeking nations to broaden their supply chains by shifting their focus from West Asia to Africa. Afro-Asian interdependence in trade and investment partnerships has developed in the post-Cold War economic world order thanks to Asia's need for African equityoil.

As an extension of Afro-Asian economic complemtarity, the regime in Undivided Sudan has diversifiedthe pattern of its transnational production linkage through consolidation of multiple Asian participations in its oil sector. The shift that Undivided Sudan's foreign oil policy behavior has undergone is due to the withdrawal of major Western oil firms, which have initiated the exploration and production activity in its oil field. The basic reasoning behind this strategy is to prevent any possibility of an Asian actor monopolizing Undivided Sudan's oil sector while also ensuring that the country's oil production is less dependent on its alliance with the West. As a result, the transnational production partnership that Undivided Sudan is currently forming for its oil industry has a major Asian emphasis. An additional setting for Sino-Indian competitive cooperative engagement has been generated by the Sudanese oil sector, which is thought to be a dynamic part of the larger process of oil globalization.

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