



IRAN-CHINA RELATIONS AND ENERGY POLITICS

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ABSTRACT

The contemporary international economy continues to be dependent on the production of oil and natural gas in the West Asian region. Therefore, this region will play a major role in global politics and economy in the near future. In view of global dependence on oil and gas, it is strategically important for the world to ensure safe access to West Asia. It means making big deals with the region's suppliers and providing them with diplomatic and military support. They will also have to keep in mind that oil supply could drop sharply either due to global economic crisis or an adverse regional security situation.

KEY WORDS: contemporary international economy , global dependence , oil and gas.

INTRODUCTION

The presence of vast energy resources has been a mixed blessing for the Persian Gulf States. The aspiration for control over oil fields has often led to inter-state wars in the region. Even though these events occur nationally or regionally, they affect oil consumers all over the world. The Iraq-Kuwait War, the Iran-Iraq Wars, Arab Spring, Rise of Islamic State and internal disturbances in the region are some of the examples. Policies of organisations like the Organisation of Petroleum Exporting Countries (OPEC)ⁱ also have an impact on oil prices. Such events influence the supply of petroleum to the global market. Even if supplies do not actually change, they have an impact on prices.

Oil, particularly petroleum and its derivatives, represents one of the most diverse and multi-functional resources in the world, and therefore remains a highly politicised commodity. It has played, and will in the near future continue to play, a vital role in shaping global economic development, technology and society for more than 2,000 years. Today, the West Asian region with its supply of energy links the world together politically and economically. While most people believe that petroleum is the primary source of energy, its derivatives are also equally significant in our everyday lives. In short, oil has become an essential part of our daily activities. At a much broader level, oil remains a highly politicized commodity, because of its important role in the global economy. Given the importance of oil, it is not surprising that the politics over the West Asian region and its resources continue to impact global politics.

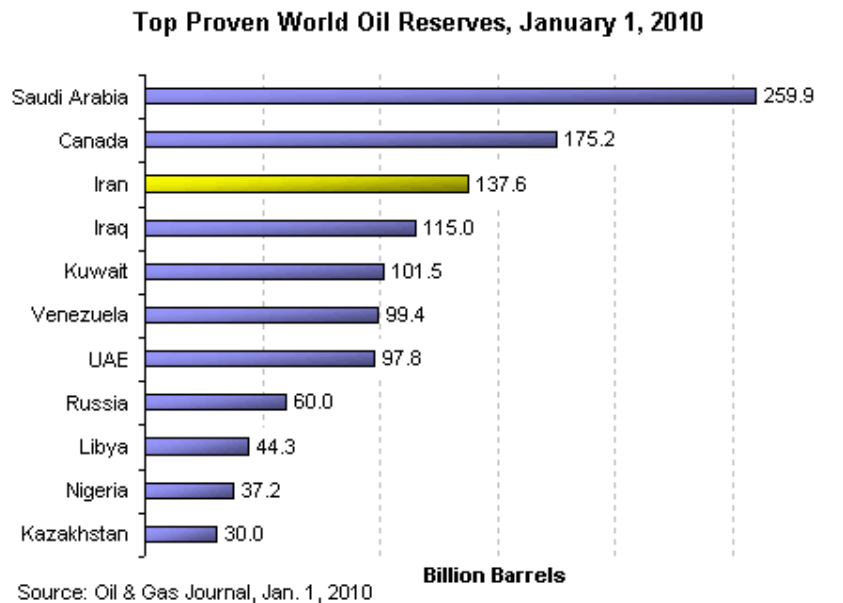
In recent times, China's role in the West Asian region is growing in accordance with Beijing's increasing economic, diplomatic and political interests in the region. China is expected to beat the US as the world's largest oil importer in years to come, making energy security the top issue in Beijing. In 2014, 22 per cent of Chinese companies' global investment was directed towards the West Asia. Chinese tourism in the West Asia and North Africa (WANA) region rose more than fivefold during 2000-2012. However, the number of Chinese nationals working and travelling in the region is still modest. Some US leaders and scholars have been expressed concerns about the implications of increasing Chinese influence in the region, while others have welcomed China's increasing presence and called on China to

make greater contribution to regional stability, by leveraging its important soft power to help resolve conflicts.ⁱⁱ

WEST ASIAN ENERGY AND CHINESE INFLUENCE

As the United States grapples with the economic crisis, the consequences of two wars in Iraq and Afghanistan, and a swiftly changing global scenario, it tries to find ways to exert its influence at the global level. China, on the other hand, with its constant search for raw materials and energy resources to drive its extraordinary economic growth and the search for new markets for its products, is expanding its influence worldwide, and appears to be the main beneficiary in the West Asian region. China is the world’s second largest oil consumer, and by 2030 is expected to import as much oil as the US does today.ⁱⁱⁱ Its main axis of expansion is Central Asia, but the other region that is on Beijing’s radar for its huge reserves of oil and gas is West Asia in general, and Iran in particular. (See Figure1)

Figure1^{iv}



China’s main partners in the West Asian region is Iran, a non-Arab country which does not enjoy good relations with most Arab nations. Iran is the fourth largest exporter of oil to China after Saudi Arabia, Iraq and Oman from the region. Iran supplied US \$15 billion oil to China in 2018. China has also invested heavily in the development of Iran’s energy sector plugging the gap left by Western countries because of the tensions over Iran’s nuclear programme. It is estimated that Chinese investments in Iran’s energy sector amount to more than \$ 100 billion over a 25-year period.^v China has also raised its exports of gasoline to Iran in an effort to ease the pressure on Iran created by the US sanctions.

Iran-China Cooperation in Oil Sector

Iran under the Shah was one of the more assertive countries leading the OPEC to redefine the relationship between oil-producing countries and international oil companies. One of the first major declarations of power by OPEC came in February 1971 during a meeting in Tehran, when the oil-producing countries forced the Western oil companies to increase the displayed price of oil by 3 per cent and the oil tax rate by 5 per cent. The month after the Tehran OPEC conference, then Chinese Premier Zhou Enlai applauded it during the Pahlavi Princess Ashraf’s visit to Beijing. He said,

In order to safeguard state sovereignty and protect their natural resources, Iran together with other members of the Organization of Petroleum Exporting Countries have recently waged effective struggles against the Western imperialist oil monopoly consortium and won victory. We express support for your just struggle and sincere congratulations on your victory.^{vi}

Experts like John W Garver stated “the formation of Iran-China relations in August 1971 articulated China’s ‘resolute support’ for the ‘effective struggles’ and ‘positive results’ secured by the ‘Iranian government and people’ in the struggle against ‘Western petroleum monopoly groups’”. Again, in July 1973 when Iran passed the law launching Iranian ownership of all oil resources in Iran, China weighed in with support. *Peking Review* announced the new Iranian move as “a resounding victory” ending 72 years in which Iran’s “oil resources have been in the hands of the big monopoly groups of the West”. The Iranian move was hailed as “another victory chalked up by the people of Iran in their protracted struggle to protect their oil rights and interests”. Beijing saw OPEC’s efforts to raise oil prices as part of the Third World’s struggle against superpower hegemony. The 1974 year-end roundup by *Xinhua* proclaimed:

The Third World’s anti-imperialist and anti hegemonist struggles in the past year have brought to the surface a number of fundamental problems [in the imperialist system]...once distorted or covered up...The Arab people achieved great successes through the use of the oil weapon. In doing so they revealed one of the secrets of how the imperialists and superpowers amassed their wealth making super-profits by forcing down the price of Third World raw materials...The Third World’s conscious application of their raw materials as a weapon against imperialism and hegemonism is a new thing, a formidable weapon which strikes panic in the hearts of the imperialists and superpowers, threatening to deprive them of the means by which to batten onto the Third World...The Third World fight against economic plunder has cut down the imperialist and superpower world market aggravating the capitalist world crisis.^{vii}

According to Garver:

Beijing also strongly rejected the western allegation that OPEC price growths were responsible for the global recession that began in 1973. Following the beginning of stern international economic recession, the heads of OPEC countries gathered at Algiers (Algeria) in March 1975. The main objective of the OPEC meeting was to deny Western allegations that OPEC’s actions had caused the global recession. Again, China came forward and strongly supported the decision of the OPEC meeting. Even China said ‘the profit mad monopoly capitalists’ who had pushed oil prices up not to the actions of the oil-producing countries. The Third World oil producing countries have simply adjusted the extremely unfair oil prices and got back some of their legitimate rights.^{viii}

China’s then Vice Premier Li Xiannian travelled to Tehran shortly after the Algiers conference, he stressed the importance of Shah’s role in gaining Beijing’s support. Li said that China “warmly praises the great achievements of the conference” and “firmly supports the just position of the developing countries on their right to enjoy and exercise permanent sovereignty over their own natural resources and on the establishment of a new and equitable international economic order”.^{ix}

Iran has the world’s second-largest natural gas reserves however, it lacks the technology to develop them. China has specifically helped Iran to develop its heavy oil fields. Heavy crude is harder to produce, refine, and sell than light crude oil, which has a lower density. 60 per cent of Iran’s oil reserves are thought to be of the heavy crude variety.^x China has also sealed the opportunities created by the departure of Asian and European energy companies due to UNSC and Western sanctions to develop the huge South Pars field.

In August 2014, a senior energy official said that Iran was cooperating with well-known Chinese and German energy companies on its shale gas and oil projects. Hormuz Qalavand, the exploration director of the National Iranian Oil Company (NIOC) said “We are negotiating with Germany to use their advanced technology for the hi-tech section of Lorestan shale projects”. Qalavand also underlined that Iran was also working with a Chinese company on the hi-tech parts of its gas hydrate project in the Sea

of Oman. Iran has huge shale oil and gas reserves in the west and the south. While some market analysts believe that shale oil and gas reserves might jeopardise market prices for conventional oil and gas, in January 2014, Iranian Oil Minister Bijan Namdar Zanganeh said he did not see shale or tight oil as a threat to OPEC. Oil shale, also known as kerogen shale, is an organic-rich fine-grained sedimentary rock containing kerogen (a solid mixture of organic chemical compounds) from which liquid hydrocarbons called shale oil (not to be confused with tight oil, crude oil occurring naturally in shales) can be produced. Shale oil is a substitute for conventional crude oil; however, extracting shale oil from oil shale is more costly than the production of conventional crude oil, both financially and in terms of its environmental impact. Deposits of oil shale appear around the world, including major deposits in the US. It is believed that the total estimates of global deposits range from 4.8 to 5 trillion barrels of oil.^{xi} The US \$100 billion agreement between Iran and China in oil and natural gas sectors in 2004 highlights the importance and weight of the energy sector in their bilateral relations. In November 2008, China National Offshore Oil Corporation (CNOOC) signed a US\$16-billion Memorandum of Understanding (MoU) with the National Iranian Oil Company (NIOC) to develop North Pars gas field for LNG supply. Also in 2009, NIOC and China National Petroleum Corporation (CNPC) signed a US \$ 5 billion contract in Beijing for the development of phase 11 of the South Pars gas field.^{xii}

Iran formed a joint oil and gas committee with China to broaden and expedite energy cooperation between the two countries.^{xiii} In addition to purchasing Iranian oil and natural gas, China is also the most significant foreign player in Iranian “upstream” (exploration and extraction) operations. China has slated to develop the huge Azadegan and Yadavaran oil and natural gas fields. Recently, in July 2012 the then Iran's Oil Minister, Rostam Qasemi said that China had agreed to invest US \$20 billion in developing north and south Azadegan and Yadavaran oil fields which will finally produce 700,000 barrels per day of crude oil. Qasemi also added that the agreement for developing Azadegan and Yadavaran oil fields has been reached after 10-15 years of negotiations with the Chinese side.^{xiv} Japan had been chosen by Tehran as its ideal foreign investor in Azadegan, but Tokyo withdrew from the deal due to Western sanctions. China has also agreed to increase production from Iran's West Karoun oil fields-including North Azadegan, operated by CNPC.

China has also become Iran's largest market for petrochemical exports, especially methanol. According to Reza Hamzelou, the head of Iran's Petrochemical Commercial Company, Iran has exceeded Saudi Arabia as the largest methanol exporter to China. Chinese companies are also willing to construct a US \$5 billion methanol plant in the Iranian city of Mahshahr. Iran is a key player in supplying methanol to the world. Presently, Iran has the ability to produce more than 5 million tonnes of methanol, which constitutes 10 per cent of the world's methanol production. Of this amount, approximately 90 per cent is exported.

After Iran's nuclear agreement, both Iran and China have agreed on a new arrangement for crude oil payments under which Beijing will reimburse part of the payments owed to Tehran in cash. China is the largest consumer of Iran's crude oil, buying more than 925,000 barrels each day, but Tehran imports goods as an alternative to hard currency for its oil sales. Asadollah Asgarowladi, chairman of Iran-China Chamber of Commerce underlined “Under the new agreement with Chinese authorities, it was decided that after a commission rebate, the balance of the money from oil and gas exports is returned to Iran.”^{xv} He also pointed out, without stipulating the currency in which the two countries are trading, that there was no difficulty for payments of the oil by the Chinese.

China is also Iran's biggest trade partner. However, according to some media reports, recently in May 2014, Iran cancelled a contract with China National Petroleum Corporation, citing the failure to fulfil output obligations. Since the nuclear deal with Iran and the P5+1 (Britain, China, France, Russia, the US and Germany) on July 14, 2015, Iran had allowed to export more oil to the foreign countries. According to rough estimates, if sanctions were to be lifted completely, Iran's economy would grow by about seven per cent. Due to sanctions, Iran's oil exports had fallen drastically by two-thirds between 2011 and 2013. As a result, its GDP dropped sharply, inflation rate increased by 40 per cent, unemployment rose and foreign investment dried up. There is a lot of apprehension in Iran about the

nature and scope of the phased withdrawal of sanctions being offered under JCPOA agreement. The JCPOA was signed between Iran and p5 plus one Russia, China, the United Kingdom, the USA, France and Germany in 2015. Under the agreement, Iran agreed to stop its nuclear enrichment programme and will allow nuclear watchdog International Atomic Energy Agency (IAEA) for inspection of nuclear sites time to time. In return, the UN, EU and US unilateral sanctions would be lifted gradually and also release more than US \$100 billion of Iranian assets that is frozen in US banks. Iran’s Supreme Leader Ayatollah Seyyed Ali Khamenei has demanded the lifting of all sanctions immediately after the deal.

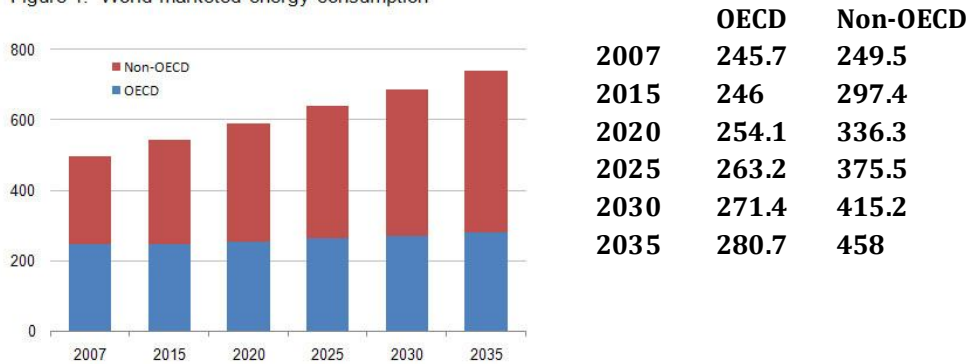
Iran-China Cooperation in Gas Sector

While the potential of natural gas has been known for quite some time, it was not until the 1990s that the world came to have a serious interest in exploiting the natural gas for purpose of meeting energy requirements and economic development. Gradually, natural gas has emerged as the fuel of choice for consumers seeking its relatively low environmental impact, especially for electric power generation. As a result, world gas consumption is projected to more than double over the next three decades, rising from 23 per cent to 28 per cent of world total primary energy demand by 2030 according to International Energy Agency.^{xvi} Worldwide, total natural gas consumption is increasing at an average of 1.6 per cent per year according to the International Energy Outlook (IEO) 2009 report, and is expected to increase by 153 trillion cubic feet (Tcf) in 2030, or more if new technologies that convert natural gas into transportation fuel proliferate in the years to come.

Today, natural gas is expected to be the fastest and second growing-source of energy in the world, especially in the industrialised countries. According to the IEO 2010 report, the world energy consumption is likely to grow by 49 per cent between 2007 to 2035. Total world energy consumption will increase from 495 quadrillion British thermal units (Btu) in 2007 to 590 quadrillion Btu in 2020 and 739 quadrillion Btu in 2035.^{xvii} With world oil prices expected to revert to previous high levels after 2020 and remain high thereafter, consumers are more likely to opt for the comparatively cheaper natural gas for their energy needs. (See Figure 3)

Figure3: World marketed energy consumption (in quadrillion Btu)^{xviii}

Figure 1. World marketed energy consumption



The rise in natural gas familiarity comes not only due to a concern over the future of crude oil availability, but also from an overall increase in environmental consciousness. Since natural gas produces less carbon dioxide when it is burned than does either coal or petroleum, governments implementing national or regional plans to reduce greenhouse gas emissions may encourage its use to displace other fossil fuels.^{xix}

Natural gas remains a key energy source for industrial sector consumption and electricity generation throughout the projection. The industrial sector currently consumes more natural gas than any other end-use sector and that trend is expected to continue through 2030,^{xx} when 40 per cent of the world's total natural gas consumption is projected to be used for industrial purposes. Particularly, new petrochemical plants are expected to rely increasingly on natural gas as a feedstock, especially in West Asia, where major oil-producing countries, working to maximise revenues from oil exports, turn to natural gas for domestic uses. In 2006, Organisation for Economic Cooperation and Development (OECD) member-countries consumed 52 Tcf^{xxi} of natural gas and non-OECD countries consumed 53 Tcf^{xxii} exceeding OECD gas consumption for the first time since the fall of the Soviet Union in 1991.

Among the non-OECD countries, Russia is second only to the US in total natural gas consumption, with demand totalling 16.6 Tcf in 2006 and representing 55 per cent of Russia's total energy consumption. According to the IEO 2009 report, natural gas consumption in Russia is growing by 0.9 per cent per year on average, and its share of total energy consumption is estimated to rise to 56 per cent^{xxiii} by 2030, outpacing growth in liquid fuels and coal consumption.

The most populated countries in the world, China and India both, are using natural gas as lesser fuel in their overall energy mix, which represents only 3 per cent and 8 per cent of their respective total primary energy consumption in 2006. However, the IEO 2009 report indicates that natural gas consumption would grow rapidly in both the countries at an average of 5.2 per cent in China and 4.2 per cent in India per year between 2006 and 2030. Together, China and India are projected to consume 7.1 Tcf more natural gas in 2030 than in 2006, as compared with an increase of 8.1 Tcf^{xxiv} for the rest of the non-OECD Asia. India is also committed to reduce the amount of its carbon emissions and increase the share of electricity produced from sources other than fossil fuels to 40 per cent by 2030.^{xxv} India submitted its climate action plan at the UN Climate Secretariat in Germany's Bonn on October 1, 2015, becoming one of the last major global economies to release its goals for tackling climate change ahead of December's 2015 landmark Paris Climate Conference. In the document, known as the Intended Nationally Determined Contributions (INDCs), the Indian Government stated that it would reduce carbon emissions relative to its GDP by 33 per cent to 35 per cent from 2005 levels by 2030. India's Prime Minister Narendra Modi also announced that the investments in solar power would give reliable electricity to an additional 300 million Indians.

According to the IEO 2009, natural gas consumption would increase at an average annual rate of 2.0 per cent in West Asia and 3.2 per cent in Africa between 2006 and 2030. However, there is very little infrastructure on the continent for intraregional trade of natural gas. Intra-regional infrastructure is limited in West Asia as well, although both Dubai and now Kuwait have plans to begin importing Liquefied Natural Gas (LNG) to meet peak summer demands for natural gas. There are five major natural gas-producing countries in the West Asia region – Iran, Qatar, the UAE, Saudi Arabia and Iraq. All five countries have declared plans to increase natural gas production in order to meet the estimated increase in regional demand and/or to supply markets outside the region. Saudi Arabia is making intense efforts to increase its natural gas production particularly for domestic consumption.^{xxvi} Though there may be fluctuations in oil production when Saudi Arabia balances global supply and demand, which in turn will influence the production of natural gas.

Iran has the world's second-largest reserves of natural gas, after Russia, and currently it is the largest natural gas producer in West Asia with proven natural gas reserves of 31.9 tcm in 2018. Political hurdles-including the US sanctions and international concerns over the country's nuclear enrichment ambitions have minimised interest in foreign direct investment in the country's natural gas sector. The largest natural gas development project in Iran is the offshore South Pars field, (Also known as North

Dome field in the Qatari side) is by far the world's largest natural gas field. This gas field was discovered in 1990, which is expected to hold 1,800 trillion cubic feet (51 trillion cubic meters) of in-situ natural gas and some 50 billion barrels (7.9 billion cubic meters) of natural gas condensates reserves.

PROSPECTS FOR A GAS CARTEL

The growing importance of natural gas to modern economies increases new concerns about the security of gas supplies, particularly for importers, and the possible creation of a gas cartel similar to the OPEC oil cartel. These two issues, having now emerged on to the world stage, are likely to compel the development of gas geopolitics. In May 2001, the Gas Exporting Countries Forum (GECF) organised their first ministerial meeting in Tehran with the aim to increase consultation and coordination among gas producers. The meeting was attended by Algeria, Brunei, Iran, Indonesia, Malaysia, Nigeria, Oman, Qatar, Russia, Norway and Turkmenistan. Though this meeting did not compel GECF to follow a production sharing agreement and quota system, some individual members of the group discussed the merits of exercising some form of market influence or control.^{xxvii} At the second official meeting of GECF in Algiers, in 2002, a working group, including Russia and Algeria, was formed to discuss gas supply issues with the European Union (EU).^{xxviii} However, Algeria and Russia made it clear that they wanted to group with other gas exporters to defy EU attempts to outlaw destination clauses that stop buyers from reselling gas. In February 2003, at the third Ministerial meeting of GECF, Egypt proposed that the exporter group begin a gas pricing change in Europe by finishing the link to crude oil prices in hopes to form better market option for gas.^{xxix}

The main objective for the formation of the GECF is "to enhance the role of GECF in the global energy scene in order to support the sovereign rights of Member Countries over their natural gas resources, to maximize their value for the benefit of their people, and to promote their coordination on global energy developments with a view to contributing to global sustainable development and energy security."^{xxx}

Nevertheless, cartels are difficult to create and maintain particularly when there are more than just a few members. The cartel must decide how much to limit output which must be less than what would be jointly produced in the absence of the cartel. Assigning production quotas among the member countries is complex because each member has diverse necessities, objectives and uncertain bargaining power. There is also the problem of how the cartel can penalise a cheater even if identified. Finally, the cartel must prevent entry into the industry; if not its market share will reduce along with its influence to set price or other market conditions.

Consider, for example, OPEC as the oil cartel. It is well-known that in situations where investment in capacity covers growth in demand, OPEC can temporarily increase prices by diffidently confining output. It is also accepted that Saudi Arabia, being the largest oil producer, has played a particular role in maintaining price discipline within OPEC.^{xxxi} By retaining surplus capacity, Saudi Arabia is a 'swing producer' that can flood the market and limit oil prices to punish members who may go beyond their quotas on the one hand and raise production to moderate price increases and thus limit new entry by edging producers on the other.

In the case of GECF, some members like Canada and the Netherlands would be unlikely to join a gas producers' cartel due to their compact relations to the industrialised West. It appears that Russian involvement is imperative for a successful cartel. There are some more hurdles to the formation of an effective gas cartel. One impediment is the competition of gas with other fuels. Unlike oil where there are few substitutes in the transportation sector, natural gas must compete with coal, oil, hydroelectric and nuclear power in most of its uses. The interdependence between gas and oil markets creates an additional problem for a gas producing countries. There will be an overlap of members in both the cartels, who already participating in the OPEC and those who would be members of a possible gas cartel.^{xxxii} Price competition between gas and oil may also one of the challenges for the gas cartel.

The global demand for natural gas is likely to grow at a much rapid pace in years to come. In short, estimated consumption is much higher than present production levels. To meet the rising global demand, major development and transportation projects will have to be taken up worldwide. Rising global energy demand poses a major challenge for both the oil and gas-producing/exporting as well as consuming/importing countries. Natural gas production requires massive investment in technology, necessary expertise, and infrastructure.

CONCLUSION

The contemporary international economy continues to be dependent on the production of oil and natural gas in the West Asian region. Therefore, this region will play a major role in global politics and economy in the near future. In view of global dependence on oil and gas, it is strategically important for the world to ensure safe access to West Asia. It means making big deals with the region's suppliers and providing them with diplomatic and military support. They will also have to keep in mind that oil supply could drop sharply either due to global economic crisis or an adverse regional security situation caused by spread of Islamic State in the region and internal problems in Libya, Iraq and Yemen.

There is also an increasing need for harmonising diplomatic and economic efforts to handle the problems in the West Asian region. There can also be efforts to find out alternative supply routes and energy sources from Central Asia and Africa. Oil is a fungible and a limited commodity. Looking for newer sources of oil and natural gas in areas other than West Asia may, to an extent, mitigate existing energy deficiency in the short-term. Nevertheless, as long as the world's transportation system remains reliant on oil to the extent that it does today, dependency on West Asia will increase, and hence will the economic and security burden which comes along with it.

Naturally, developing and shifting to alternative sources of energy would take time and also require massive investment in research and capacity-building. Until then, the Persian Gulf countries, which have undoubtedly come to acquire certain leverage in the international and regional politics, will remain a significant factor in global politics. For the sake of energy security, the world will have to continue to tactfully deal and manage its relations with the West Asian region in years and decades to come. It goes without saying that consumers ought to find alternative sources of energy and enhance the energy efficiency of their economies if they are to limit the future market power of gas and oil suppliers.

China's investments in Iran have not only led to lucrative contracts for China's three major national oil companies (CNPC, Sinopec, and CNOOC) but have also potentially increased Chinese energy security by developing a solid relationship with a supplier. In general, China's imports of Iranian crude have increased despite the fact that international sanctions against Iran have made payments by China more difficult, compelling the two countries to find ways around this through barter trade. China's continued economic expansion, combined with the high intensity of Chinese growth, is helping to fuel its demand for overseas energy. Chinese trade with Iran is pushed in large part by Beijing's growing need for energy imports, and its desire to secure them by participating in oil and gas exploration, development, and other "upstream" activities of its overseas energy suppliers. Certainly, from a security viewpoint, Iran's geographic position is unique – it is the only Gulf supplier that China can reach by both pipelines and sea routes.

END NOTES

ⁱ E. G. Frankel, *Oil and Security: A World Beyond Petroleum*, Springer, Dordrecht (Netherlands), 2007, pp. 129-137. Also see: M. Mahtab Alam Rizvi, "West Asia and Oil Politics", *Strategic Analysis*, 35 (2), March 2011, pp. 287-296.

ⁱⁱ "China in the Middle East", U.S. Institute of Peace, Washington, DC, February 17, 2015, at <http://www.usip.org/events/asia-conference-china-in-the-middle-east>.

ⁱⁱⁱ Ibid. Also, see: "Waiting for China in the Middle East", *Medarabnews*, June 4, 2010, at <http://www.medarabnews.com/2010/06/04/waiting-for-china-in-the-middle-east/>.

^{iv} See <http://www.eia.doe.gov/cabs/Iran/Oil.html>.

^v Chris Zambelis, "The Iran Chip in Sino-Saudi Relations", *Asia Times*, May 18, 2010, at http://www.atimes.com/atimes/Middle_East/LE18Ak01.html.

^{vi} "Premier Chou En-lai Gives Banquet in Honour of Her Royal Highness Princess Ashraf Pahlavi", *Xinhua*, April 14, 1971.

^{vii} "Rise of Third World and Decline of Hegemony", *Xinhua*, December 28, 1974.

^{viii} John W. Garver, "China and Iran: Ancient Partners in a Post-Imperial World", *University of Washington Press*, 2006, pp 37-38.

^{ix} Ibid., pp 37-38.

^x Reuters, "Iran Has 85 Billion Barrels Heavy Oil Reserve: Report," *Reuters*, August 30, 2008, at <https://www.reuters.com/article/us-energy-iran-oil-idUSKAL03972020080830>

^{xi} "Iran-Russia-China Axis to Fight Western Sanctions", *Fars News Agency*, September 8, 2014. See also: <http://www.globalresearch.ca/iran-russia-china-axis-to-fight-western-sanctions/5400429>.

^{xii} Mohsen Shariatinia, "Iran-China Relations: An Overview of Critical Factors", *Iranian Review of Foreign Affairs*, Vol. 1, no. 4, Winter 2011, pp.67-68.

^{xiii} "Iran, China to Form Joint Oil and Gas Committee," *Tehran Times*, April 23, 2011.

^{xiv} "China to Invest USD 20bn to Develop Two Iranian Oil Fields: Qasemi", *Press TV*, July 8, 2012, at <http://www.presstv.com/detail/2012/07/08/249976/china-to-invest-usd-20-bn-in-iran-oil-fields/>.

^{xv} "Iran, China Agree on New Oil Payments", *Albawaba*, June 1, 2015, at <http://www.albawaba.com/business/iran-china-agree-new-oil-payments-702016>.

^{xvi} International Energy Agency, *Monthly Report*, August 2009, at <http://www.iea.org/>.

^{xvii} "Energy Information Administration, "International Energy Outlook 2010", March 25, 2010, at <http://www.eia.doe.gov/oiaf/ieo/highlights.html>.

^{xviii} US Energy Information Administration, May 25, 2010 at http://www.eia.gov/oiaf/ieo/excel/figure_1data.xls.

^{xix} **"Carbon Dioxide Emissions from the Generation of Electric Power in the United States, Environmental Protection Agency", Department of Energy, Washington, July 2010, at http://www.eia.doe.gov/electricity/page/co2_report/co2report.html.**

^{xx} Toyin Falola and Ann Genova, *The Politics of the Global Oil Industry: An Introduction*, Praeger, London, 2005, pp. 163-178.

^{xxi} Energy Information Administration, "International Energy Outlook 2009", at http://www.eia.doe.gov/oiaf/ieo/pdf/nat_gas.pdf

^{xxii} Ibid.

^{xxiii} Ibid.

^{xxiv} Ibid.

^{xxv} Joanna Plucinska, "India Pledges to Reduce Carbon Emissions 33%-35% by 2030", *Times*, October 2, 2015, <http://time.com/4059051/india-indc-climate-change-carbon-emissions/>.

^{xxvi} Ronald Soligo and Amy Myers Jaffe, "Market Structure in the New Gas Economy: Is Cartelization Possible?", Programme on Energy and Sustainable Development at the Centre for Environmental Science and Policy, Stanford Institute for International Studies, Stanford University, Stanford, 2004.

^{xxvii} Ronald Soligo and Amy Myers Jaffe, "Market Structure in the New Gas Economy: Is Cartelization Possible?", Programme on Energy and Sustainable Development at the Centre for Environmental Science and Policy, Stanford Institute for International Studies, Stanford University, Stanford, 2004.

^{xxviii} Club House: Yusufov Proposes Gas Exporter Club, *Petroleum Intelligence Weekly*, March 14, 2002, at http://www.energyintel.com/pages/about_piwi.aspx

^{xxix} “Mixed Reviews for Egypt’s Pricing Plan”, *Petroleum Intelligence Weekly*, February 12, 2003, at http://www.energyintel.com/pages/about_piwi.aspx

^{xxx} “The Gas Exporting Countries Forum Long-term Strategy”, 19th Ministerial Meeting Report, Moscow, October 4, 2017, at https://www.gecf.org/_resources/files/events/the-gas-exporting-countries-forum-long-term-strategy/gecf_Its_document_14122017.pdf

^{xxxi} Ronald Soligo and Amy Myers Jaffe, ‘Market Structure in the New Gas Economy: Is Cartelization Possible?’, Programme on Energy and Sustainable Development at the Centre for Environmental Science and Policy, Stanford Institute for International Studies, Stanford University, Stanford, 2004.

^{xxxii} Ibid.