INDIA'S HYDROCARBON POLICY: DIVERSIFICATION, DIPLOMACY AND DEALS

SAI DEEPTHI PAVANI

INTRODUCTION

India's dependence on energy imports has been on an upward trend since the 1950s. From a country that was 50 percent self-reliant in oil, the figures of self-reliance today are close to negligible.[1] The growing demand of oil combined with the lack of resources and infrastructure for upstream[2] projects has placed an ever growing dependence on imports for its energy needs. In order to meet the high levels of consumption, India invariably depends on imports. Over two-thirds of India's energy demands are met by the Gulf countries. Saudi Arabia continues to be India's top oil supplier. Translating the relations into strategic energy cooperation in 2006, Saudi Arabia and India grew closer by increasing India's role in the energy stakes in oil and gas fields abroad. Today, India imports nearly 15.62 percent of its oil from Saudi Arabia, with the other top suppliers being Iraq, Nigeria,

Ms. **Sai Deepthi Pavani** is currently pursuing her Master's in International Studies at Christ University. Her fields of interest are South Asian politics especially India's relations and foreign policy. This paper was written during her internship at the Centre for Air Power Studies, New Delhi.

1. I.P. Khosla, *Energy And Diplomacy* (Delhi: Konark Publishers, 2005).
2. The oil and gas industry is divided into three sectors: upstream, which includes exploration and production; midstream which covers distribution; and downstream which comprises refining and processing

During the period 2006-10 when the GDP was increasing at the Compounded Annual Growth Rate (CAGR) of 8.2 percent, India witnessed a subsequent rise in energy consumption by 142.8 Million Tonnes oil-Equivalent (MToE).

United Arab Emirates (UAE), Qatar, Venezuela and Iran.[3]

It is evident that India relies heavily on imports from West Asia which majorly comprises the Arab and Islamic nation-states. This high dependence on imports from a highly conflicted region is tied to a high risk of price volatility. One of the reasons why India can be seen moving towards Central Asia for energy could be attributed to the fact that diversification of its energy sources would shield the country from being highly prone to shocks caused by regional conflicts. Removing potential hindrances to economic growth in the energy sector would benefit India since it is an emerging economy. Before looking into India's energy cooperation with other nations, it is essential to examine the situation of India's energy demand as it exists and the likely increase in the coming years .

THE DEMAND QUOTIENT

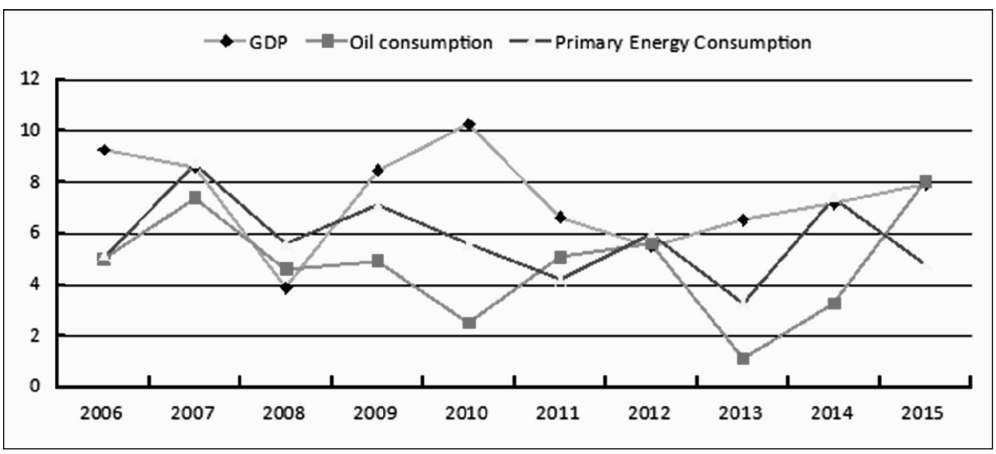
India is the world's third largest energy consumer, accounting for 4.4 percent of global energy consumption. With an average Gross Domestic Product (GDP) growth rate of 8 percent, India's energy dependence on oil and natural gas is predicted to grow in the near future. In 2015 alone, China and India were responsible for 55 percent of global growth in oil products consumption.[4] During the period 2006-10, when the GDP was increasing at the Compounded Annual Growth Rate (CAGR) of 8.2 percent, India witnessed a subsequent rise in energy consumption by 142.8 Million Tonnes oil-Equivalent (MToE).[5]

The growth in GDP is reflected proportionately in the consumption of coal, oil and natural gas. Coal, being the primary source of energy, is bound

3. World Bank, "World Integrated Trade Solution," http://wits.worldbank.org. Accessed in 2017.
4. World Energy Statistics, "World Energy Consumption & Stats", 2016, *Yearbook.Enerdata.Net*. https://yearbook.enerdata.net/#oil-consumption.html.
5. World Economic Outlook Database; British Petroleum Statistical Review of Energy, 2011.

to have a direct impact, but the increase in oil is likely to be fuelled by the growth in GDP per capita. This growth in oil consumption, as a consequence of GDP per capita growth, can be attributed to the increased sales in the automobile industry.[6] Since the transportation sector accounts for 70 percent of the total petroleum consumption, the growth in the automobile industry is directly proportional to the oil demand in the country.[7] The oil consumption in 2015 increased by 8.1 percent, recording the highest ever growth, only to be again surpassed by an 11 percent growth in 2016.[8] From Fig 1 below, it can be observed that the general trend is that the primary energy consumption and oil consumption in the country was in line with the growth and fall in the GDP. The energy driven GDP growth will, thus, have a definite impact on the consumption of hydrocarbons.

Fig 1



The following factors are perceived to contribute to the increase in India's dependence on oil and natural gas.

6. Tsvetana Paraskova. "India's 2016 Oil Demand Jumps 11% To Record Highs: Oilprice.Com", *Oilprice.Com*, 2017, http://oilprice.com/Latest-Energy-News/World-News/Indias-2016-Oil-Demand-Jumps-11-To-Record-Highs.html.
7. Sanjeev Choudhary, "India's Dependence on Crude Oil Imports on Rise as Consumption Increases", *The Economic Times*, 2016, http://economictimes.indiatimes.com/industry/energy/oil-gas/indias-dependence-on-crude-oil-imports-on-rise-as-consumption-increases/articleshow/51934359.cms.
8. British Petroleum Statistical Review of World Energy, June 2016.

According to the National Energy Map of India, a study commissioned by the Government of India and carried out by The Energy Resources Institute (TERI), it was planned to achieve 10 percent GDP growth rate by 2025. In order to achieve this, it was found that electricity generation needed to increase by five times.

The Slow Shift towards Oil and Natural Gas

India's dependence on oil and natural gas primarily stems from the fact that 30 percent of its total energy needs are met by oil and natural gas.[9] Of course, this compares favourably with the fact that India draws nearly half of its energy from renewable sources of energy and from coal.India's dependence on coal is much greater than its dependence on oil for energy. In total, there are 65 gas-based thermal plants and 116 coal-based thermal plants in India.[10] But due to the growing sensitivity to environmental concerns, countries are moving from 'unclean' sources of energy and, hence, oil and natural gas are seen as potential alternatives to coal. Wind and solar energy are renewables and cleaner, but due to the fact that industries related to petroleum products and refineries bring in large revenues through exports, economies cannot function without oil and natural gas.

According to the National Energy Map of India, a study commissioned by the Government of India and carried out by The Energy Resources Institute (TERI), it was planned to achieve 10 percent GDP growth rate by 2025. In order to achieve this, it was found that electricity generation needed to increase by five times[11]. Growth in electrification directly indicates the growth in dependence on thermal power which currently meets 68.3 percent of the demand.[12] The study had also recommended a shift to hydrocarbons for cleaner energy.

9. International Energy Agency Statistics 2015.
10. "Power Sector at a Glance", Government Of India, Ministry of Power", 2017, http://powermin.nic.in/en/content/power-sector-glance-all-india.
11. Ramchandra Pode, "Addressing India's Energy Security and Options for Decreasing Energy Dependency," *Renewable and Sustainable Energy Reviews,* vol.14, 2010, pp. 3017 as cited in Vivek Dhall, 2013, *India's Energy Security*. 1st ed, (New Delhi: Vij Books India Pvt Ltd).
12. "Power Sector at a Glance," Government of India, Ministry of Power, 2017, *Powermin.Nic.In*. http://powermin.nic.in/en/content/power-sector-glance-all-india.

There has subsequently not only been a rise in the imports of crude oil but also an overall increase in the imports of petroleum products. In fact, these rose by 32.9 percent from 2015 to 2016. The demand in the country for petroleum products has increased, which has fuelled imports, thereby resulting in reduction in the export of petroleum products (one of India's primary export commodities) by over 5 percent in 2015, calling for a shift in the allocation of crude oil imports from producing petroleum products to domestic consumption, consequently adding up to the demand.[13]

Industries Dependent on Oil and Natural Gas

In India, the economy is divided into three major sectors: services sector, manufacturing or secondary sector, and agricultural and allied or primary sector. Accounting for a total Gross Value Added (GVA) of 53.66 percent, the services sector is the major contributor to the economy followed by the industrial sector that contributes 29.02 percent, while the agriculture and allied sector's share is 17.32 percent.[14] Energy is used primarily for industries, transportation and domestic purposes. As of 2015, the manufacturing or industrial sector accounted for the largest share (44.11 percent) of electricity consumption, placing a direct bearing on the energy sector.[15] The fertiliser and power sectors consume natural gas at 30 and 21 percent respectively.[16] Industries and the services sector consume nearly half of the energy and for an economy with a GVA devoted to industries and the services sector, any interruption in the flow of energy towards these sectors, can damage growth to a great extent.

13. Indian Petroleum and Natural Gas Statistics 2015-2016, Government of India.
14. India Bank Equity Foundation databank, http://.www.ibef.org/economy/economic-survey-2015-2016. Accessed on May 16, 2017.
15. Central Statistics Office, Ministry of Statistics and Programme Implementation, 2016, *Energy Statistics 2016*, Government of India, http://mospiold.nic.in/Mospi_New/upload/Energy_statistics_2016.pdf
16. V. Kumar, K. Rajesh and Dr. M. Vimala, "Energy Consumption In India-Recent Trends". *Asia Pacific Journal of Research* I (XXXVI), February 2016, http://apjor.com/downloads/0203201620.pdf.

Despite the discoveries having combined reserves of nearly 10 trillion cubic feet (tcf), financial problems in the sector have warded off potential investors. Hence, domestic supply is not moving apace with the demand.

Demand-Supply Gap

Despite the government's efforts in building the upstream sector to make India self-sufficient, the country is not able to keep up with the growing demand. Two major reasons that contribute to the demand-supply gap are India's growing population and lack of adequate resources available in India to meet the demand. Growth in population, coupled with an emerging market economy drives the demand at a much faster pace. The Government of India had launched various initiatives towards decreasing the dependence on imports by funding exploration projects at home and abroad. However, the annual reports of the Oil and Natural Gas Corporation (ONGC) and Indian Oil Corporation (IOC) suggest a continual fall in the output production.

Prime Minister Modi has set a target of cutting oil import dependence by 10 percent in the next seven years in the hope to reverse the decline in domestic oil output through a slew of policy measures, fresh investments and technological interventions. A study by TERI shows that coal will continue to be the main source of energy but the dependency on oil and natural gas is recommended for a cleaner energy mix. This led to the emergence of Hydrocarbon Vision 2025 that aims to shift the focus to alternative sources of cleaner energy. The Vision focusses entirely on tapping the existing oil and natural gas resources in the country. It was framed in the context of utilising the strategic location of northeast India bordering five important neighbours (Myanmar, Bhutan, China, Nepal and Bangladesh) for building pipelines in the future. But the exploration plan currently faces strong opposition in the state of Manipur.

Under the exploration policies, the Indian government's major policy is the National Exploration Licensing Policy (NELP) under which the government provides Petroleum Exploration Licences (PEL) to companies and firms. Formulated in 1997, it aimed to attract capital into the

upstream sector from both public and private players by allowing 100 percent Foreign Direct Investment (FDI) in the oil blocks under the exploration process. The policy's success rate continues to be marginal considering the fact that of the 26 sedimentary basins in India, 80 percent remain completely unexplored.[17] It is believed that the policy will bring long-term benefits in the future but, currently, India's requirements need to be met by imports.

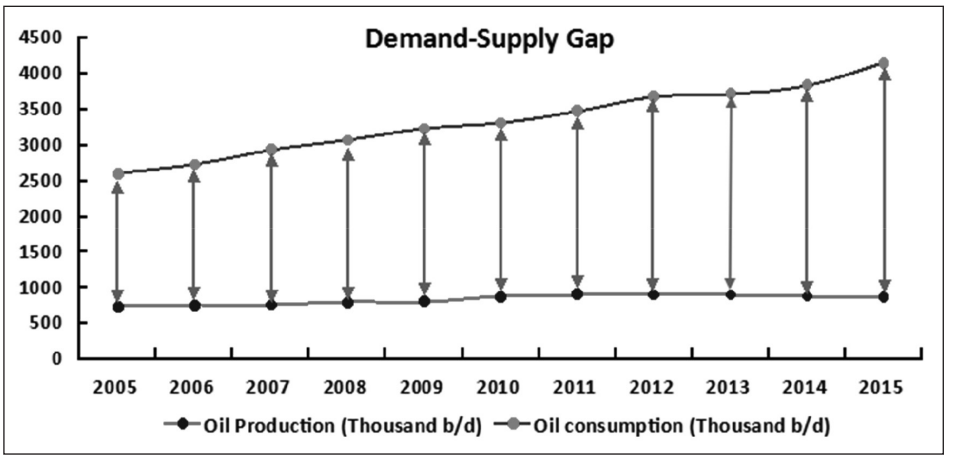
The major deal was the Rossneft-Essar deal by which 98 percent of acquisition of Essar oil will be carried out in return for major stakes in oil and gas fields. The summit reached new heights with regard to hydrocarbon energy cooperation.

The dependence on natural gas imports is due to the power sector's growing demand. There have been natural gas discoveries ranging from those in the Krishna-Godavari basins to those in other regions in Orissa and Gujarat. Despite the discoveries having combined reserves of nearly 10 trillion cubic feet (tcf), financial problems in the sector have warded off potential investors. Hence, domestic supply is not moving apace with the demand. With states like Delhi and Maharashtra urging compulsory use of Compressed Natural Gas (CNG) cylinders, there is bound to be an increasing demand as well. The demand was last known to be 155 tcf while the supply along with imports was 83 tcf, but it is expected to grow to 400 tcf in the next 20 years. Though the reserves are expected to last for 30 years, they could never meet the demand even if all the reserves started production simultaneously.[18]

India's crude oil self-sufficiency has fallen drastically by more than 30 percent over the years.[19] Fig 2 below shows the consistent increase in the demand-supply gap when it comes to oil production and consumption.

17. Vivek Dhall, *India's Energy Security*, 1st ed (New Delhi: Vij Books India Pvt Ltd, 2013).
18. I. P. Khosla, *Energy And Diplomacy*. 1st ed. (Delhi: Konark Publishers, 2005).
19. World Economic Outlook Database, September 2011, International Monetary Fund.

Fig 2



Due to stagnation in the growth of the upstream sector, India invariably had to import its oil to sustain the economic growth over the years and will continue to do so as the domestic reserves and resources will not be able to supplement the growing demand.

INDIA'S EMERGING ENERGY PARTNERS

West Asia which is India's major supplier of energy, remains crucial due to the region constituting a major share of global energy reserve. However, the ongoing political developments in West Asia and India's interests and complex relations with individual nations in the region, have led it to reach out to other nations and in particular, Russia and the Central Asian nations as an alternative source of energy. The new outreach extends to Central Asia, which accounts for major oil and natural gas reserves in the world, as also to Russia, which is known for its infrastructure in pipelines along with its energy reserves.

Russia

Energy cooperation with Russia can be dated back to the post-independence era when the Soviet Union helped India build the basic infrastructure for refineries and became the largest oil supplier to India. Soon after the Soviet disintegration, bilateral energy relations came to a near halt. The cooperation

was revived from 2000 onward when the nations came together to sign the strategic bilateral cooperation agreement and from then on, Russia has supported India by providing access to infrastructural developments and helped Oil and Natural Gas Corporation Videsh Limited, the foreign wing of India's oil exploration company ONGC, in acquiring stakes in major oil and gas fields abroad. The relations reached new heights at the India-Russia Annual Summit 2016 when Russian President Vladamir Putin met with Prime Minster Narendra Modi to sign energy deals. Through the meeting, the nations envisioned a framework for a natural gas pipeline that could make Russia a primary natural gas supplier to India. There was also an increase in the stakes for Indian companies in oil and gas fields in the Arctic and Baltic regions.[20] The major deal was the Rossneft-Essar deal by which 98 percent of acquisition of Essar oil will be carried out in return for major stakes in oil and gas fields. The summit reached new heights with regard to hydrocarbon energy cooperation.

India's transnational pipeline projects will play a crucial role in India's energy security equation, and the partnership it can build with Russia—for building pipelines infrastructure—and the Central Asian nations, is a means to that end.

Prospects in Central Asia

India describes Central Asia as its extended neighbourhood. The lack of direct connectivity to the region has been a constraint in establishing relations but India is trying to overcome this through initiatives like the International North-South Transport Corridor (INSTC), a corridor connecting India to the Central Asian regions through the Iranian Bandar Abbas port and from there on connecting by road to the Russian Astrakhan port to other regions. This route is said to reduce the time loss by 40 percent. Materialisation of the corridor could widen the prospect of Central Asia as an energy source. India's major energy partners in

20. Dipanjan Chaudhury, "India And Russia May Agree to Create an 'Energy Bridge'", *The Economic Times*, 2016, http://economictimes.indiatimes.com/articleshow/54684635.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

The deal sprang up again in 2012 when the South Asian Gas Enterprise (SAGE)—India took up the project on a broader scale of creating an energy corridor. The pipeline, now renamed as the Middle East-India Deepwater Pipeline (MEIDP), will be an underwater pipeline, bypassing Pakistan, transporting 8 tcf over 1,300 km of pipeline.

the region are Kazakhstan, Turkmenistan, Uzbekistan and Tajikistan. Starting with the visit of Prime Minister Manmohan Singh, India started to import uranium and hydrocarbons from these areas. The 2011 energy deal with Kazakhstan gives India 25 percent stake in the Satpayev oil block.[21] Since then, Uzbekistan and Turkmenistan have also signed deals with India with regard to a strategic partnership. The most recent was Prime Minister Narendra Modi's visit to the Central Asian region during which India managed to sign deals with regard to uranium, and the exploration in Satpayev started.[22] Turkmenistan has the fourth largest gas reserves in the world while Kazakhstan holds the world's twelfth largest oil deposits and has the third largest gas reserves in the region. Tajikistan and Kyrgyzstan have exhibited great potential for hydropower.[23]

India's transnational pipeline projects will play a crucial role in India's energy security equation, and the partnership it can build with Russia—for building pipelines infrastructure-—and the Central Asian nations, is a means to that end. The following section would look into some of the major energy deals undertaken by India and in particular the major pipelines projects.

21. Amiya Chandra, *India-Central Asia Relations: The Economic Dimension*, (Pentagon Press).
22. Sameer Patil, "After Modi's Visit, Is Central Asia Open For Indian Business?", *The Diplomat*, http://thediplomat.com/2015/07/after-modis-visit-is-central-asia-open-for-indian-business/.
23. Manish Vaid, "India's Energy Diplomacy In Central Asia Could Challenge China's Monopoly," *ORF*, http://www.orfonline.org/research/india-energy-diplomacy-central-asia-challenge-china-monopoly/.

THE ENERGY DEALS

The volatility was largely driven by the fact that many of India's major exporters were in West Asia whose oil production was affected due to the political instability which prevailed in the region. In particular, India's major oil exporter, Iran, which post-revolution in 1979 witnessed the wrath of the Western nations in the form of heavy sanctions.

Iran-Pakistan-India Pipeline Project (IPI)

The Iran-Pakistan-India (IPI) pipeline project is a natural gas pipeline which was proposed to export gas from Iran to Pakistan. Iran later offered to extend the pipeline to India and export gas to India via Khuzdar in Pakistan and extending it to Multan to reach India; thus, covering a distance of nearly 2,775 km from Iran's South Pars gas field in the Persian Gulf. Another branch of this pipeline would further extend to Karachi.[24] The proposed pipeline project was known as the "Peace Pipeline" which would transport 90 million metric standard cubic metres (mmscmd) to India. However, years of tensions between India and Pakistan have stalled the project and the impact of UN sanctions on Iran buried the pipeline project even before it was built.

Turkmenistan-Afghanistan-Pakistan-India Pipeline Project

Another project in the making has been the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline project proposed by the US as an alternative to IPI. Both Pakistan and India were persuaded to switch to TAPI for gas. The TAPI pipeline will supply 33 mmscmd to India through a 1,814 km pipeline via Afghanistan and Pakistan.[25] The pipeline faces challenges since it has to pass through the Af-Pak and Balochistan regions, which are known to be highly turbulent. The project had kicked off with Turkmenistan finishing its part of the pipeline successfully but it hasn't progressed any further.

24. Sagarika Dutt and Alok Bansal, *South Asian Security*, 1st ed.(London: Routledge, 2015).
25. Reza Yeganehshakib, "Iran-India Energy Cooperation Opens New Horizons", *Al-Monitor*, 2016, http://www.al-monitor.com/pulse/en/originals/2016/01/iran-india-oman-gas-pipeline-meidp-vs-tapi.html

Fig 3

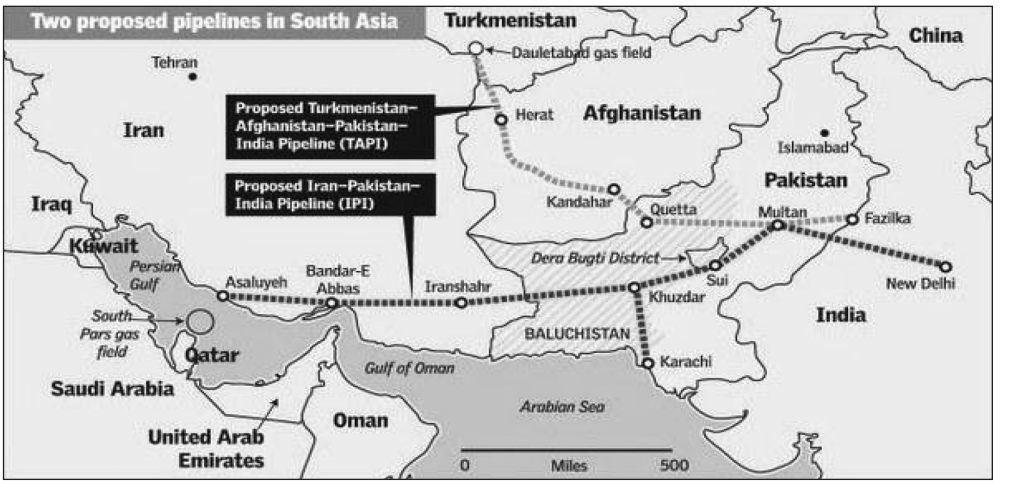


Image source: The Hindu BussinessLine

Oman-India Sub-Sea Pipeline

The sub-sea pipeline which will draw gas from Oman was proposed in 1995 but was shelved due to technological inadequacies. The deal sprang up again in 2012 when the South Asian Gas Enterprise (SAGE)—India took up the project on a broader scale of creating an energy corridor. The pipeline, now renamed as the Middle East-India Deepwater Pipeline (MEIDP), will be an underwater pipeline, bypassing Pakistan, transporting 8 tcf over 1,300 km of pipeline. This could also connect India to Iran without having to go through Pakistan if the corridor is completed. The rest of the energy corridor would connect Oman's port to Iran and other Central Asian regions. Thus, the major advantage that India would gain through the materialisation of this project would be uninterrupted access to Iran and Central Asia.

There is a massive political stronghold underpinning the diplomacy towards the realisation of energy pipeline projects. The sequence of the diplomatic events involved in the emergence of TAPI and MEIDP emerged as alternatives to IPI, exploring the factors that shifted India's focus from IPI to TAPI. India is trying to revive the shelved deal through MEIDP, as discussed in the following section.

DIPLOMATIC DIMENSIONS OF INDIA'S PIPELINE PROJECTS

The IPI deal came to a standstill when Pakistan refused to extend the pipeline to India but resurfaced when Pakistan realised that it had to look for potential importers in order to meet its domestic needs.

In the years following the oil shock, India worked towards securing its supply through a process of diversification in order to expand its sources of oil and natural gas. The move was preceded by the high amount of instability that the shock brought to the nation. This was when the Indian energy sector was suffering from volatility which prevailed in the international oil market. The volatility was largely driven by the fact that many of India's major exporters were in West Asia whose oil production was affected due to the political instability which prevailed in the region. In particular, India's major oil exporter, Iran, which post-revolution in 1979 witnessed the wrath of the Western nations in the form of heavy sanctions. This compelled India to balance the major oil producing nations in West Asia, thus, courting both Saudi Arabia and Iran in order to meet its energy needs.[26]

1995 and the Process of Diversification

The year 1995 was important as it marked the beginning of talks on the US sanctions on Iran and Libya. The sanctions were ratified in the year 1996 but the process for disengaging ties with Iran had started much earlier when the shah of Iran was suddenly portrayed in the Western media as an "oppressive leader". The fall of the shah was a guided response by the US to tackle the nationalisation of oil and gas firms – a move which could put an end to the EU's and US' stakes in the Iranian oil and gas industries. It is necessary to study the background of Iran-US relations in order to show how India diplomatically shuttled between the two nations when the IPI pipeline was being negotiated.

26. Aras et al., "India's Dilemma in the Arab Spring", *Project on Middle East and the Arab Spring*, 2015.

With regard to TAPI, India now pays three times more than what was agreed on with IPI. Before India withdrew from the Iran pipeline, India was negotiating a deal at $7 billion dollars, including the transit fees to Pakistan.

This was around the same time that India realised that it would not be able to sustain itself if it depended on the domestic production of oil and natural gas. Hence, it started looking outwards and building its relations with Central and West Asia, with the intention to meet its energy requirements through imports. India's move was further strengthened due to its long-term bilateral relations with these nations.

In 1995, India took initiatives to become part of the Iran-Pakistan pipeline project which was already being negotiated with Pakistan. Initially designed to supply gas till Pakistan, India's interest in the pipeline accentuated the tensions between India-Pakistan and stalled the deal from progressing due to Pakistan's reluctance and India's own security concerns. Pakistan's relations with India also hindered the deal from getting materialised. The IPI deal came to a standstill when Pakistan refused to extend the pipeline to India but resurfaced when Pakistan realised that it had to look for potential importers in order to meet its own domestic needs. Every ceasefire exchange shot down the prospects of establishing relations and raised suspicions over leaving the pipeline under Pakistan's guard. Pakistan's strategic link with the West and Central Asian regions has posed a challenge which India has been trying to bypass by constructing pipelines via Oman. The US embargo on Iran had reduced its market in Europe and the US and, thus, Iran began to seek new markets.[27] This is when events in the South Asian region presented a great opportunity to Iran. Further, India's economic liberalisation had made India emerge as a major importer of energy in order to fuel its growth.

27. "How Sanctions Affect Iran's Economy," CFR.org. Council on Foreign Relations, May 23, 2012. Web, May 1, 2017.

India's Relations with the US and the Impact

Economic liberalisation, in addition to expanding trade, had largely attracted Western players like the US. The increasing economic relationship between India and the West, also to a large extent, influenced India to vote on the International Atomic Energy Agency (IAEA) sanctions Bill in 2005. India's action at the UN was quoted by numerous Washington officials as a success in India being "coerced".[28] Condelezza Rice, the then US secretary of state, on numerous occasions had expressed concerns about India-Iran ties, thereby exerting pressure on the country.

The voting that India had participated in, in the United Nations Security Council (UNSC) from 2005 with respect to nuclear proliferation was, thus, construed by many as India taking an anti-Iran stand and bending to US pressures. Iran too showed its displeasure when, right after the vote, Tehran called off the Liquefied Natural Gas (LNG) deal and it was communicated by the Iranian Foreign Ministry spokesman that "Iran will revise these (economic) relations and these countries (that voted against Iran) will suffer. Our economic and political relations are coordinated with each other"[29]

India subsequently withdrew from the deal quoting "price, fees and security concerns" as the factors. With regard to TAPI, India now pays three times more than what was agreed on with IPI.[30] Before India withdrew from the Iran pipeline, India was negotiating a deal at $7 billion, including the transit fees to Pakistan. The supposed deal that India withdrew from was formulated to have gas priced at around $7 per million British thermal units (mBtu) at the Indian border but was said to rise by 40 percent due to the rise in oil prices. Now, India is negotiating for a price of $10 mBtu at the Indian border while Turkmenistan wants $12 per mBtu at its border and the entire project is estimated to cost $10 billion. With TAPI, India would be paying more than double the domestic gas price[31].

28. Siddarth Varadarajan, "India's Anti-Iran Votes Were Coerced, Says Former U.S. Official", *The Hindu*, 2007, http://www.thehindu.com/todays-paper/tp-national/Indias-anti-Iran-votes-were-coerced-says-former-U.S.-official/article14721223.ece.
29. Amit Baruah, "A Test for India's Foreign Policy," *The Hindu* (Madras), September 1, 2005.
30. Dutt and Bansal, n. 24.
31. Rakteem Katakey, "India Skips Crucial Meet on IPI Pipeline", *Business Standard*, 2008, http://www.business-standard.com/article/economy-policy/india-skips-crucial-meet-on-ipi-pipeline-108100201074_1.html.

US influence on Iran-India relations did not end with the vote. The US also took steps to curtail the financial mechanisms through which India conducted trade with Iran. The US opposed conduct of transactions with Iran through the Asian Clearing Union (ACU), a regional integration of central banks which facilitates easier movement of trade and foreign exchange among the member nations. According to Shebonti Dadwal[32], this was done when the US expressed concerns over the "opaque" nature of the organisation, restricting the chances of tracing if and whether the money is going into Iran's nuclear proliferation programme. However, these claims were rebutted by the Reserve Bank of India (RBI) saying that the move was made to facilitate better trade exchanges.[33] India then adopted two other payment mechanisms which were again quashed. This forced many oil companies which were dependent on Iran's imports to diversify their sources, resulting in a fall of oil imports since 2011. This laid down the foundation for the debt repayment crisis that built up tensions between India and Iran. The crude oil imports from Iran fell by 24 percent in the first 11 months. India's imports that stood at 259,000 barrels per day (bpd) of oil as of 2013 showed a near 43 percent decline from the previous year.[34] Iran fell from being India's second largest oil importer to the sixth, following the sanctions.

As exaggerated as the reports that followed the vote may seem, India's stand had not affected the relations such that they would hit rock-bottom. In 2013, there was a growth in the imports which was again followed by a decline in 2015 right after the Joint Comprehensive Plan of Action (JCPOA) Bill was passed. The decline was not primarily due to US pressure but due to the fact that the channels of foreign exchange were repeatedly blocked, thus, holding off the investors over taking potential risks.

The US, in the meantime, had started promoting its energy alternative, TAPI, to both India and Pakistan. With the signing of the civilian nuclear

32. Shebonti Ray Dadwal, "Rajat Dubey Asked: Why Did India Decide to Withdraw From ACU? How Will The New Agreement With Iran Solve The Problem?", Institute For Defence Studies and Analyses". *Idsa.In*. Accessed on May 3. http://www.idsa.in/askanexpert/withdrawfromACU.
33. "RBI Claims ACU Ban Will Ease Oil Imports", *The Hindu,* 2011, http://www.thehindu.com/business/Economy/RBI-claims-ACU-ban-will-ease-oil-imports/article15513222.ece.
34. Nidhi Verma. March 8, 2013. "Exclusive: India Set To Halt Iran Oil Imports Over Insurance - MRPL", U.S.. http://www.reuters.com/article/us-iran-india-imports/exclusive-india-set-to-halt-iran-oil-imports-over-insurance-mrpl-idUSBRE9270BP20130308.

deal with the US, India was being offered more than one source of energy security if it backed out of IPI. The US' strategy could be perceived as being aimed to reduce India's oil and energy dependence on Iran. One major reason was that Iran's economy would be crippled if its oil exports were hit thereby, cutting off the source of revenue supporting the enrichment programmes.

With the signing of the civilian nuclear deal with the US, India was being offered more than one source of energy security if it backed out of IPI. The US' strategy could be perceived as being aimed to reduce India's oil and energy dependence on Iran. One major reason was that Iran's economy would be crippled if its oil exports were hit.

While Pakistan was also being pressured by the US to choose TAPI instead of IPI, Iran hastened to sign the deal with Pakistan before it could bend. Iran had also commented that if India did not respond favourably, the deal would be offered to other regional powers. True to the threats, the deal was sold eventually to Russia in exchange for electricity which it will now export to Mongolia, China and Europe from Pakistan. But Russia has not limited itself to IPI; it has extended its support to Pakistan in TAPI also.

It can be seen with that even with respect to relations with Iran, India chose energy over politics. India's policy shifts were on similar lines during the Saudi Arabia-Iran conflict as well.

Post-Lifting of the Sanctions on Iran

After the sanctions were lifted, talk of reviving the IPI pipeline had surfaced in India. Except this time, India wishes to draw gas from Iran through the Oman port instead, where the MEIDP has already started apace. But India is caught up in a row over Iran's Farzad B natural gas field. The Farzad B natural gas field, which is a recently discovered gas field, holds a crucial link to the entire pipeline project all over again as, if India does not get the rights, these would be sold to China. The gas field was discovered by the Indian consortium ONGC Videsh during the sanctions period which made it difficult for it to get permission to develop the field. Iranian envoy

India is also engaged in building its own energy corridor to Europe through Turkmenistan known as the North-South Transport Corridor. The corridor will connect India, Iran, Russia, Europe and Central Asia by various routes and, hence, the energy pipelines form the crux of the diversification process.

Gholamreza Ansari, in an interview, stated that India had not responded favourably to Iran's offers during the sanctions period and had kept silent over the entire deal despite Iran's efforts.[35] With the sanctions lifted, Iran wished to open the deal for other competitors. India, which considered itself as the sole winner of the deal, grew wary. The row escalated further with the Indian government deciding to cut back on imports by 25 percent to which Iran's Oil Minister Bijan Zanganeh responded by saying that Iran would not sign the deal over threats. He further added that Iran's competitive oil and gas market would not lose much as it had other buyers even if India cuts back its imports. India currently, the second largest importer after China, is trying to expand its presence in West Asia, thus, winning the deal is of strategic importance to it.

With China entering the equation, India's policy towards Iran has shifted from conducting relations to promising to cut down imports. This policy can be looked into from the context of combating the geo-political threat that it faces.

Combating Chinese Influence

China's Belt Road Initiative (BRI) which it has been pursuing fervently to expand its markets in South Asia, Southeast Asia, and the European region, will play a key role with respect to the deal. China had recently inaugurated the China-Pakistan Economic Corridor (CPEC) and is strengthening its economic ties with Pakistan. The realisation of the economic corridor would

35. Nayanima Mishra, "'India Must get Assertive on Farzad B Gas Project'", *The Hindu*, Business Line, 2017, http://www.thehindubusinessline.com/news/national/india-must-get-assertive-on-farzad-b-gas-project/article9560341.ece.

require a heavy investment in the generation of energy. Realising this, China has offered to help cover the costs in the Iran-Pakistan Pipeline[36]. The project that comes under the One Belt One Road (OBOR) initiative will help to bring about infrastructural development in Pakistan. As part of the project, China had also offered to pay $2 billion to build a gas pipeline from Iran to Pakistan, reviving the peace pipeline.[37] If the pipeline materialises, it would reap benefits for both China and Pakistan.

The intention of the OBOR initiative, apart from expanding China's reach into new markets, is also to secure China's energy demand. Currently, the demand for gas in China is over 35 percent, and the International Energy Agency (IEA) predicts a 20 percent rise in the imports by 2055. Therefore, China is looking for resources in West and Central Asia through the OBOR.[38] After the CPEC was announced on April 2015, talks began to surface on a India-Iran pipeline that bypasses Pakistan. This can be seen as a measure put forward by India to combat the threat posed by growing China-Pakistan relations.

India's opposition to the OBOR initiative is majorly due to the CPEC passing through the Gilgit-Baltistan region which is a region of disputed territory between India and Pakistan. India perceives this as a move recognising Pakistan's sovereignty over the disputed territory, although the Chinese officials deny the political undertone of CPEC, calling it purely "economic". However, India boycotted the OBOR Summit held in May 2017 and so far, India and China haven't settled on energy agreements of any kind. Rather, both are competing with one another when it comes to securing their energy supplies.

India is also engaged in building its own energy corridor to Europe through Turkmenistan known as the North-South Transport Corridor. The corridor will connect India, Iran, Russia, Europe and Central Asia by various routes and, hence, the energy pipelines form the crux of the diversification

36. Press releases as found on cpec.gov.pk.
37. Sohail Bhatti, "Chinese Company to Build LNG, Gas Pipeline Projects in Pakistan", *Dawn*, 2015. Available at: https://www.dawn.com/news/1209970. Accessed on May 22, 2017.
38. Jude Clemente, "China's Rising Natural Gas Demand, Pipelines, and LNG", Forbes.Com. https://www.forbes.com/sites/judeclemente/2016/04/24/chinas-rising-natural-gas-demand-pipelines-and-lng/#6203a53b5d00.

The fear of Pakistan holding the IPI hostage in the future cannot be ruled out. Of course, Pakistan and Iran are under the observer status in the 1994 Economic Charter Treaty which prohibits states from disrupting the supply of energy products even when in dispute.

process, and India's energy relations with its emerging partners such as Russia and Central Asian nations become crucial.

CHALLENGES AND INDIA'S OPTIONS

As laid out in the paper, there would be a continuous increase in India's energy demand. Poor domestic production capacity along with the various diplomatic challenges that limit the fulfillment of India's energy needs, as well as security challenges will continue to riddle the sector.

The challenges that India's energy sector faces are huge, owing to the shifting dynamics in the Oil Producing and Exporting Countries (OPEC). In the recent OPEC meeting held in November 2016, the countries were asked to cut down their production in order to bring about a rise in the slumping international oil prices—this could again impact domestic oil prices in India which is heavily dependent on imports.

Volatility in West Asia

The volatility of oil prices in West Asia stems from the fact that oil is not just an economic commodity but one of strategic importance. This is what differentiates West Asian oil from that of other regions. The involvement of great powers such as France, the US, Russia and Britain in the politics of West Asia complicates the game due to the ongoing Arab-Islam conflict in the region. West Asia has been India's partner in energy for the longest time but interests in the region have always been influenced by the threats of instability. West Asia is highly prone to attacks and conflicts due to its resources and the large number of terrorist activities in the region.

Lack of Connectivity with Central Asia

Central Asia has been India's "extended neighbour" and the term 'extended' plays a major role in establishing how India lacks connectivity with the

region. Afghanistan and Pakistan are India's immediate neighbours on the northwestern front. Which means that India has to pass Pakistan and Afghanistan to reach out to Central Asia. India has tried to tackle this by having good relations with Iran which also shares a border with Central Asia. By taking the sea route to Chabahar port, India will be able to bypass Pakistan.

Overall, the Indian government's approach towards tackling the energy demand-supply problem has been towards engaging more with the hydrocarbon-rich countries in order to sustain its GDP growth.

Pipeline Security and Politics

There have been numerous cases of pipeline explosions by the Baloch Liberation Army (BLA) in Balochistan. The BLA claimed responsibility for the blasts in Pir Koh and Dera Bugti. With the proposed pipelines going through the region, concerns over the physical security of the pipeline projects crop up time and again. There is also a perceived threat of blockades that must be taken into account as Russia which holds a major stake in the project has in the past used blockades as a strategy to counter Ukraine. The fear of Pakistan holding the IPI hostage in the future cannot be ruled out. Of course, Pakistan and Iran are under the observer status in the 1994 Economic Charter Treaty which prohibits states from disrupting the supply of energy products even when in dispute. Pakistan would only jeopardise its chance of getting a permanent membership under the charter if it ever engages in such acts. But nevertheless, the threat of blockades remains a theoretical possibility, however remote.

INDIA'S OPTIONS

The government, in addition, to improving investments in the upstream sector must also build a mechanism to shield the country from oil shocks as it has been established that India would be dependent on imports in the coming years. One of the common ways is to diversify its imports, hence, distributing the risk. India is seen doing this. Another way is to create buffer stocks that help cover the demand and stabilise the surge in energy

prices. This can only be achieved if the infrastructure in the upstream and middle stream sectors is well endowed. Thus, the need emerges for India to continue with its traditional engagement with West Asia whilst, at the same time, devising new ways and means to counter the uncertainty by building new partners in Central Asia and attaining knowhow for the development and execution of pipelines from partners like Russia.

Overall, the Indian government's approach towards tackling the energy demand-supply problem has been towards engaging more with the hydrocarbon-rich countries in order to sustain its GDP growth. While India is pursuing energy pipelines, the challenges that it had faced with the previous pipelines like IPI seem to have been overcome with the advancement of new and alternative technologies that have made undersea deepwater pipelines a reality by pursuing the Middle-East India Deepwater Pipeline (MEIDP) project, bypassing Pakistan. Prioritising TAPI over IPI, if done under the influence of the US, shows India's diplomatic struggle to strike a balance between Iran and the US. After getting closer to the US for energy cooperation, India is now trying to revive the shelved IPI deal in order to gain access to its newly discovered fields in Iran. India is now seen pursuing MEIDP in this accord.

On the diplomatic front, India's engaging with the hydrocarbon-rich countries is in accordance with the geopolitical threats that the country faces from the growing China-Pakistan energy relations. The canvas remains full of challenges. India's drive towards diversification of hydrocarbon imports and deft diplomacy will have to save the day for India's energy future.