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Viability of India's Gas Pipeline Options: A Geo-political Perspective

(Pakistan as a spoiler in TAPI and IPI venture)

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Can India rely on Pakistan for its energy security? The realists have not even made an effort to ask this question. The classical liberals argue that democracy gives sustainability to international cooperation but what prevails in Pakistan is pseudo-democracy, which does not give this leverage to the state. So, rather than looking at the TAPI and IPI pipelines in a theoretical framework[1] this paper takes a 'realpolitik' approach. In the dynamic regional energy security scenario where TAPI has been revived, Iran has pushed hard for the IPI pipeline by completing work at its end, whereas Pakistan is supposed to finish the work of the pipeline on its side by 2014. China has also expressed interest in this pipeline and with India virtually opting out of the project, it is now poised to make the Iran-Pakistan-India (IPI) pipeline into an Iran-Pakistan-China (IPC) pipeline. In any case, both projects are important from the geo-strategic perspective for Pakistan. Looking at the viability of the projects and the crucial geo-political factor of Pakistan,

Key Points

1. The Iran-Pakistan-India (IPI) and Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipelines are not feasible options in that light of various factors, Pakistan's failure to guarantee the supply being the primary one.
2. Currently, Qatar is the single largest Liquefied Natural Gas (LNG) supplier to India. In order to deal with unforeseen contingencies, diversifying energy suppliers is a better option.
3. Iran and Oman's proximity to India and the possibility of a sub-sea pipeline make it possible to bypass Pakistan.
4. Russian gas can be transported to Chabahar in Iran via overland pipelines from where it can be transported as LNG or sub-sea pipelines.
5. Keeping in mind the gas reserves, reliability of supply and proximity to India, Qatar, Iran and Russia are in the order of priority suppliers for India to complement the domestic production.

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the paper attempts to analyse Pakistan's need of LNG (Liquefied Natural Gas) and the significance and future prospects of these projects. It also looks into India's domestic and regional policy options in the current scenario.

Why LNG?

Natural gas contributes around 48 percent of the total primary energy mix in Pakistan.[2]Until recently, 100 percent of natural gas and 17 percent of crude oil demand was met from domestic sources.[3] Now Pakistan is facing a grave scarcity of electricity: the supply-demand gap is 4,500-5,000 MW[4] and can be attributed to severe shortage of supply of natural gas for its electricity generation plants. The present domestic gas production of 4,000 MMSCFD (Million Standard Cubic Feet per Day) is unable to meet the country's demand of 6,000 MMSCFD.[5] According to a forecast of SUI companies based on demand and supply data, from Financial Year (FY)2010 to FY2020, Pakistan will face a huge supply shortfall of 6.47BCFD (Billion Cubic Feet per Day) in FY2020. [6]

The Pakistan government came up with its first ever LNG policy in 2005-06 to encourage LNG import.[7] The government introduced the 'Tight Gas Exploration and Production Policy 2011'.[8] These are the credible long-term plans in this realm, however, in the near future, importing LNG is Pakistan's best option and that's where IP and TAPI appear to be playing a significant role.

From IPI to IPC: The Success Story of Pakistan's Diplomacy

In June 1995, the proposal on import of gas from Iran to Pakistan was brought to the review of the Economic Coordination Committee of the Cabinet.[9] Since then, it has been clear that Pakistan does not have the necessary funds to invest in this capital intensive project and is looking for a patron. Pakistan intends to take advantage of its geographical location and get other countries to invest in this project and build the infrastructure. The primary reason for the project to go dormant was the risk-benefit analysis done by the potential investors, India being one of them. The US sanctions on Iran severely restrict the options available to states. The Industrial and Commercial Bank of China withdrew from the IPI project in 2012 for this reason.[10] From mid-2012, Pakistan kept Iran engaged in the negotiations while simultaneously looking for external investments. At one point, Iran agreed to finance Pakistan's side of the pipeline but back tracked from its commitment[11] owing to its economic constraints. If Pakistan cannot complete its side of the pipeline by the stated deadline of December 31, 2014, it has to pay a penalty of $1 million per day.[12]

The Chinese ingress in the project with ambitious policies to revive the Silk Route brought back to life the IP venture, adding China to the receiver list of the pipeline. When Iranian Prime Minister Rouhani visited China in May 2014, both countries agreed to expand bilateral cooperation in the energy domain.[13] While considering China as a mediator and future consumer of Iranian gas, there is a possibility that China will try to resolve the issues of the construction part of the IP project in the framework of the 'Preferential Trade Agreement' signed between Iran and Pakistan in 2006.[14]At present, Iran may have been unable to produce enough gas for its domestic needs[15] but in the near future, it is a potential producer, if technology and investment permit. Looking at the future, the Pakistan government has put the IP project on a fast track.[16]In the first phase of the project, 710 km of a 42-inch-wide pipeline from Gwadar to Nawabshah will be completed. The remaining 70 km of the pipeline from Iranshahr to Gwadar will be constructed

after the withdrawal of US sanctions. There is a possibility that the Chinese will build a regasification plant in Gwadar. During Prime Minister Nawaz Sharif's visit to Beijing, China promised to invest approximately $42 billion in the Pakistani energy sector.[17]Thus, Chinese investments may facilitate Pakistan's ambitions of becoming an energy surplus state. Indeed, the same investment in the IPC will complement China's grand strategy of revival of the Silk Route as well as ensure its energy security. The next phase of the project could be Nawabshah to Kashgar.

TAPI: The Hamadryad

Delay in the IPI, the energy crisis and geographical restrictions have forced Pakistan to import LNG from Qatar. Since the first Gulf War, the energy deficit states have been engaged in the search of multiple suppliers while the energy rich states are in search of multiple consumers. This strategy gives a sense of security and keeps the market competitive. A Pakistani columnist, while criticising the government policy on LNG import, said, "Pakistan cannot bury its head in the Arabian sand and deny the changes in the global gas market. Putting all its eggs in the Qatar LNG basket is neither astute nor rational."[18]From this perspective, TAPI is one of the best options for Pakistan.

In August 2014, Foreign Minister of Turkmenistan Mr. Rashid Meredov had a meeting with Pakistan's National Security and Foreign Affairs Advisor Mr. Sartaj Aziz in which they "agreed to maintain a steady momentum and undertake measures for completion of the project by the target date 2017."[19] Later, on November 20, 2014, a Steering Committee Meeting was held in Ashgabat to review the present status of the project, including progress made for selection of the consortium leader.[20] "In time, the Indian company GAIL has signed a bilateral GSPA (Gas Sales Purchase Agreement) with Turkmen gas for sourcing 38 MMSCMD of natural gas for 30 years which would be transported to India through the TAPI pipeline."[21] These developments paint a positive picture about the venture, though the challenges to the pipeline persist.

The first obstacle is Turkmenistan; as a gas exporter, it is engaged on three consumer fronts, including China, Europe and its own home-grown market. "Turkmenistan has signed several natural gas contracts with China, most recently in September 2013, and will supply 2.3 Trillion Cubic Feet (TCF) of natural gas to China."[22]The European Union is looking towards Turkmenistan as a substitute for Russia through a Trans-Caspian pipeline project. But the possibility of its coming up soon is remote, as there is "no border Agreement in the Caspian Sea between Azerbaijan and Turkmenistan."[23] In the future, if the Trans- Caspian pipeline becomes a reality, then how much attention Turkmenistan will give to TAPI is a debatable point. As an end receiver with large gas requirements, India will lose the commercial benefits of TAPI which is not the case with Pakistan whose consumption is less compared to India.

The second issue is the situation in the Af-Pak region which is fast deteriorating and through which the pipeline is planned to traverse.

The third and the most important question is: can India rely on Pakistan for its energy security? The case of TAPI won't be an exception for India and so it has given secondary importance to this project.

Despite all these obstacles, Pakistan is still optimistic about the project. By connecting Gwadar port to Turkmenistan's crude oil and natural gas exports,

Pakistan aims to address the energy shortage in the country.[24] However, if Pakistan places a TAP on TAPI, there will be no surprise.

India's Current Scenario

The estimated reserves of natural gas in India as in 2014 stood at 1,427.15 Billion Cubic Metres (BCM).[25]About half of the total basin area in India is yet to be appraised.[26]Production from India's gas fields has been largely stagnating in recent years. Consumption in India is estimated at around 46.48 BCM, according to official Indian figures in 2011/12.[27] This is projected to increase to 85 BCM in 2016/17. Most of the gas produced is used for power generation, followed by the fertiliser industry and petrochemical industry. Some reports indicate LNG imports reaching 55 BCM in 2016/17.[28] Foreign asset acquisition ventures have more or less failed to meet their target of contributing to India's energy security for various reasons.

India's energy woes can be primarily attributed to a combination of ageing infrastructures, half-hearted efforts in Exploration and Production (E&P), regulatory inconsistencies, dysfunctional pricing regimes, etc. This has led to poor foreign investment as well as prevented active participation from the private sector.

India's Options

Revival of Domestic E&P

In order to address the existing concerns, the government has revised the gas rates. As per the revised rates, gas is charged at $5.65/ Million British Thermal Units (MBtu) from the earlier $4.2/MBtu, but the inclusion of transmission and marketing cost per unit will be around $6/ MBtu.[29]The new formula taken into account will enable the government to get additional revenue of approximately Rs. 3,800 crore.[30]

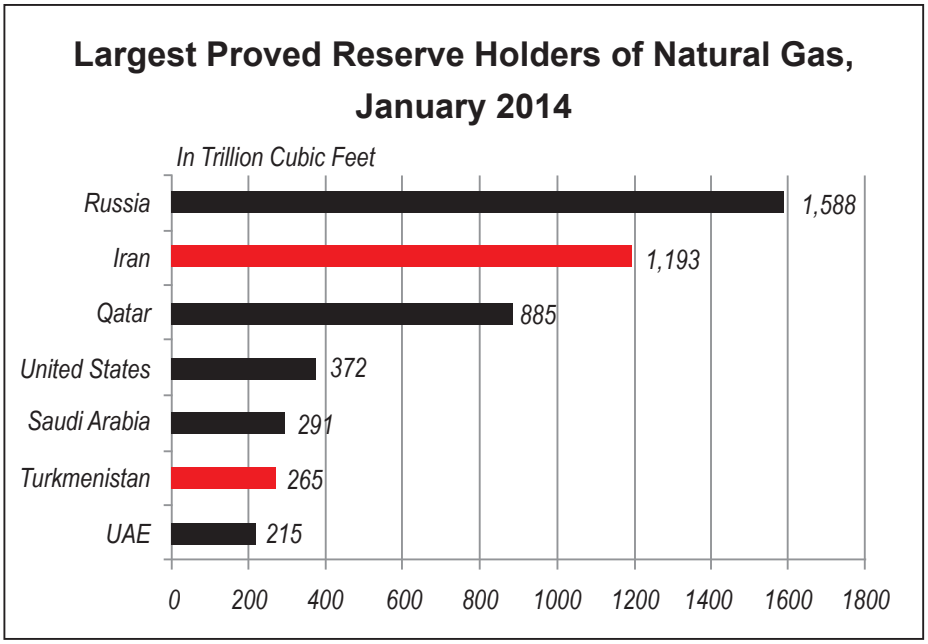
Most of Indian oil and gas reserves lie offshore[31]making it relatively more expensive and technologically challenging than exploration and production from onshore installations. Thus, the current revision in gas prices introduced by the government is a step taken in the right direction. It will boost domestic exploration and production and cut the growing gas import bill.

Regional Options

The demand for energy products has shown an upward trajectory and will continue to do so with the passage of time. The recent government approaches will only limit the import bill but it will not be possible do away with the imports altogether. Failure of Pakistan to provide any security assurance of gas supply to India, similar to the guarantees of water supply which India has offered in the Indus Water Treaty, pose serious problems with the IPI and TAPI pipelines. This requires India to look for other regional options to source its energy.

Qatar, UAE, Saudi Arabia

Presently, India has its only long-term agreement on supply of LNG with Qatar that is responsible for 84 percent of India's LNG imports.[33] Despite its large endowment, the UAE became a net importer of natural gas in 2008. The UAE's natural gas has a relatively high sulfur content that makes it highly corrosive and difficult to process and, thus, not marketable.[34] Saudi Arabia has the world's fifth-largest natural gas reserves, but natural gas production remains limited. All current and future gas supplies (except Natural Gas Liquids—NGLs) reportedly remain earmarked for domestic use, in part to minimise the use of crude oil for power generation.[35]



Data Source: *Oil and Gas Journal*[32]

Viable Regional Options: Russia and Iran

Russia has the largest gas reserves in the world. With the European market shrinking because of the sanctions on Russian energy exports, India can follow in the Chinese footsteps by signing long- term contracts for Russian gas which can be transported via Iran.

Iran has the world's second largest gas reserves after Russia and its geographic proximity makes it one of the best options for India. In addition to this, for India to source oil and gas resources from Russia and Central Asia, these have to pass through either Iran or Pakistan. With the precarious security concerns in the latter, Iran by default becomes the single best commercially viable alternative for India.

Some of the alternatives to the IPI and TAPI pipelines which India can initiate with Iranian assistance can be as follows

- Invest in infrastructure projects initiated by Iran from South Pars to Chabahar.
- Explore the possibility of a Russia-Central Asia- Chabahar Gas pipeline.
- Check the feasibility of an underwater pipeline between Iran and Oman. Gas can be shipped to India via the installations in Oman.
- An underwater pipeline directly from Iran to India.
- The fertiliser industry relies heavily on gas supplies. India can co-jointly establish fertiliser production installations in Iran, a gas rich state, from where fertilisers can be shipped at a much lower price than those produced in India. It will also alleviate pressure on the domestic gas market.

However, all the above mentioned plans can only be implemented after sanctions on Iran are withdrawn. The extension of the deadline for a comprehensive nuclear agreement and fresh sanctions relief provides some scope for

Prospects of TAPI and IPI

optimism.[36] This means that sooner or later, one can expect a breakthrough in the nuclear deadlock. Till then, India cannot venture into the Iranian energy sector. In such case, it retains the option to invest in the development of ports like Chabahar which has been recently exempted from the UN sanctions list and, thus, it makes good sense to gain as much ground as possible without violating the international sanctions.

Conclusion

The TAPI and IP pipelines are essential projects in Pakistan's energy calculus. The Chinese investments in Pakistan's energy sector as well as involvement in the IP pipeline are a welcome move for Islamabad. In the case of India, the paper concludes that the TAPI and IP pipelines are not feasible alternatives for multiple reasons: Pakistan's precarious security scenario and absence of an agreement that ensures protection to the supply and alternatives in case of disruption are some of them. The paper provides a series of regional alternatives for India. Russia, Central Asia and Iran are by far the best regional substitutes for meeting India's gas needs through the 'Trans-Asian Pipeline'. An economic assessment of these options is yet to be drawn up; the paper provides only a geo-political perspective.

Endnotes

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