Undersea Pipedreams and Indian Energy Security

Introduction

Iran's game-changing nuclear deal with the West and imminent ending of the US-led sanctions open a window of opportunity for deeper Indo-Iranian relations. On the sidelines of the BRICS summit in Ufa in July 2015, Iran's President asked Indian Prime Minister (PM) to invest in infrastructure projects worth US\$ 8 billion, including developing the strategic port of Chabahar that is India's gateway to Afghanistan and Central Asia bypassing Pakistan. Reconfiguring a pipeline project to transport Iranian and Turki gas to India is also an idea whose time has perhaps come.

Indian Prime Minister must take up Iran's offer, considering his keen interest in the US\$ 7.6 billion Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline, especially the possibility of a land-sea route through Iran which he raised during his visit to Turkmenistan. At a conceptual level, this entails gas from Turkmenistan being exported to northern Iran and swapped with gas from Iran's South Pars field to be fed into an undersea pipeline to India. Alternatively, piping gas from Turkmenistan to Chabahar from where it could be transferred to India¹, although the economics of this vis-a-vis the overland pipeline has not been worked out.

Perhaps these are pipedreams at present but may become a reality if Indo-Iranian relations acquire a sounder foundation with energy cooperation. To be sure, gas pipelines between Turkmenistan and Iran have already been built. Since 2013 (and earlier), the Iranians have revived talk of a deep-sea pipeline to India after the overland Iran-Pakistan-India (IPI) pipeline project failed to take off.² The reasons for the latter are many: Threat of US-led sanctions made both Pakistan and India less keen. India's security concerns over supply disruption by Pakistan. High prices sought by Iran, among other reasons.

Geopolitical risks bedevil TAPI as well, despite the warm relationship that exists between India and Turkmenistan. During India's PM's visit, a joint statement with the President of Turkmenistan termed TAPI a "key pillar" of bilateral economic engagement. Both leaders recognised that its implementation would have a transformational impact on trade between the two countries. As in the case of IPI, "concerns" over the pipeline passing through Taliban-controlled territory in Afghanistan, especially after the US withdraws from the region as planned may well be appreciated.

To harness Iranian and TAPI gas through deep-sea pipelines, India must adroitly play the 21st century Great Game. During the 19th century, the vast steppes, barren mountains and deserts of Central Asia witnessed a struggle for control between imperial Britain and Czarist Russia.

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- A land-sea route was raised earlier. In 2009, an Indian joint venture South Asia Gas Enterprises Pvt. Ltd. (SAGE) was in talks with ONGC Videsh Ltd for evacuating gas from the Farsi block in Iran and exploring a gas swap arrangement with Turkmenistan. In 2010, India raised the issue of Turki gas being sourced to Iran and then piped to India with both Tehran and Ashgabat.
- Indrani Bagchi "India, Iran and Oman go under sea to build pipelines, change geopolitics", Times of India, 1 March 2014. The deep-sea pipeline option figured earlier as well. In 1993, India signed an MoU with Iran which also considered a shallow water pipeline to transport gas, passing through Pakistan's Exclusive Economic Zone. Matters did not progress for at least a decade. During March 2002, SnamProgetti of Italy signed a contract with the Iran government for conducting the feasibility study. Iran has been sceptical of a deepsea pipeline due to cost and technical feasibility. In 2003, GAIL and Iran's NIOC engaged UK's Gardline Surveys to conduct a survey for an offshore pipeline. But the company failed to complete the assignment.
- ³ Lutz Kleveman "The New Great Game", *The Guardian*, 20 October 2003. See also "The New Great Game: Blood and Oil in Central Asia", Grove Press, 2004.

After the Soviet Union's break-up, this terrain is again the venue of Great Game machinations in the new millennium. The dramatis personae are also different, as the US has replaced Britain. The stakes are different as well as it is not imperial ambition or the so-called war on terror but control over oil and gas.

On its shores, and at the bottom of the Caspian Sea, lie the world's biggest untapped fossil fuel resources. Estimates range from 110 to 243 bn barrels of crude, worth up to US\$ 4 trillion. According to the US Department of Energy, Azerbaijan and Kazakhstan sit on more than 130bn barrels, more than three times the US's reserves."³

While the US intends to evacuate oil and gas from the Central Asian countries like Azerbaijan westwards – as, for example, through the Baku-Tblisi-Ceyhan pipeline –China seeks to tap into these oil and

gas fields through the 1,300 km pipeline from Atasu in eastern Kazakhstan to Alashanku in the western province of Xinjiang. Turkmenistan's gas is also flowing to Xinjiang. This eastwards flow of Caspian oil and gas is bound to raise the premium for these supplies to European markets. The new twist in the Game is that both India and China are deepening their stakes in Caspian oil and gas.⁴

Newer players like Iran and Turkey are also in the fray for Central Asia's oil and gas. Iran, in fact, has major plans to become a regional gas hub, evacuating supplies from countries like Turkmenistan which has proven gas reserves of 265 trillion cubic feet, according to the US Department of Energy. With the nuclear deal, it is throwing open a "multibillion – dollar shop window of oil and gas projects." The big projects include developing the gas fields of South Pars – which Iran shares with Qatar – and North

TAPI

The timelines for the TAPI project could well be in a month's time (December 2015 or January 2016). This is the outcome of a meeting that Afghanistan's President Mohammad Ashraf Ghani recently had with the member countries of the project. The Gas Pipeline Framework Agreement and Inter-Governmental Agreement were signed by TAPI member countries in December 2010 and they agreed on unified transit tariffs for the route in early 2012. In May 2012, Gas Authority of India Limited (GAIL) signed a Gas Sales Purchase Agreement with Turkmengas for sourcing gas for a period of 30 years.⁶

In February 2013, India's government approved a special-purpose legal entity to which TAPI members would contribute investment funds. In November 2013, the four participants appointed the Asian Development Bank as the project's transaction advisor. ADB estimated the pipeline's cost at about US\$ 10-12 billion – a lot higher than the US\$ 7.6 billion estimate cited by India's officialdom. The 20th steering committee meeting of TAPI was held at Islamabad in February 2015, which discussed timelines for the identification and selection of the consortium leader.

The 22nd TAPI steering committee at Ashgabat decided to appoint Turkmengas as the consortium leader for the project. According to the news agency UPI⁷, French energy company Total was mentioned as a possible consortium leader, though it balked after

Turkmenistan refused to offer it a stake in the Galkynysh natural gas field near the border of Afghanistan. It's one of the largest gas fields in the world, with an estimated 925 trillion cubic feet of reserves, and is designated to feed the multilateral pipeline. Indian Prime Minister's visit to Turkmenistan in July lent a lot of support for the project.

According to news reports, representatives of national gas companies from the four countries would discuss the shareholding pattern of a consortium they plan to form for laying and operating the 1,814 km pipeline and to follow Turkmenistan's assurance to lead the consortium with at least 51 per cent stake. India also expects a substantial Japanese involvement in the project, based on his discussions during the 22nd Steering Committee Meeting held at Ashgabat.

"We are the buyers. Turkmenistan is the seller. So if the seller is taking leadership role in the consortium, it is a big assurance for (the success of) the project. They (Turkmenistan) are also discussing co-operation in the oil and gas sector with Japan. So, Japanese involvement (in TAPI) is also expected. All this will only strengthen the project," stated India's Petroleum Minister.⁸ From all of this, it appears that the pipeline project is a done deal. "Vision 2030"factors in 30 million metric standard cubic metres per day (mmscmd) of gas flowing in from 2017-18 to 2029-30.⁹ But it is appropriate to be cautiously optimistic on this account.

Basically, India's concerns are that the TAPI pipeline passes through the badlands of Afghanistan — Taliban country — and Pakistan. This project, described as part of the "New Silk Road," has for long been favoured by the US over the Iran-Pakistan-India gas pipeline stretching east from Iran. But to safeguard the pipeline, there is no option but to break bread with these forces, as Unocal and its rival, Bridas of Argentina, were forced to do in the mid-1990s. Then, both these rivals pulled out all stops to use their Saudi connections to intercede on their behalf with the Taliban.

Washington aggressively lobbied for Unocal with both Afghani and Pakistani officials. Then, as well as now, the challenge stemmed from the fact, as journalist and author Ahmed Rashid puts it, "for centuries, wily Afghani tribesmen have been experts at playing off one Great Game power against the other, taking money and arms from both, but committing to neither. Still they play, but this time their target is the oil companies, and those governments who seek to control the oil pipelines of Central Asia". Dealing with corrupt dictators and warlords to make the TAPI pipeline work is par for the course.

For such reasons, the imminent progress on TAPI is reassuring. On the pipeline's safety in Pakistan and Afghanistan, India's Petroleum Minister stated that international processes would be followed. That GAIL will represent India in the consortium. An international company with experience clearly would have been preferable as GAIL has neither the financial muscle nor the experience of building a transnational pipeline. Significantly, while the Turkmenistan and Afghani leadership is keen to hold the ground-breaking ceremony in December or January 2016, India's stand, however, is not known.

- China has had a head start but India's fast catching up. Over the last one and half years, ONGC Videsh has made new acquisitions by investing more than US\$ 4 billion including the acquisition of Hess Corporation's 2.7 per cent participating interest in the Azeri, Chirag and the Deep Water Portion of Guneshli Fields in the Azerbaijan sector, one of the world's biggest oil producing field in the Caspian Sea and 2.36 per cent interest in the Baku-Tbilisi-Ceyhan pipeline which was completed in March 2013. In 2011, OVL acquired a 25 per cent stake in the Satpayev Offshore block in the northern part of Caspian Sea.
- Christopher Adams, Najmeh Bozorgmehr and Ed Crooks "Iran: The oil and gas multibillion 'candy store'", *The Financial Times*, 16 July 2015.
- The written reply to the Lok Sabha on 16 March 2015.
- News agency copy dated 10 August 2015.
- Modi, Pradhan step on gas over TAPI pipeline", *The Times* of India, 11 August 2015.
- "Vision 2030" Natural Gas Infrastructure in India, Report by Industry Group, 2014, pp 38.

- The Indian economy has been projected to achieve an average real GDP growth of 6.4 per cent during 2008-2035.
- 11 Realistic demand in the Vision 2030 Report means the demand estimated after considering limiting factors that are likely to restrict growth in demand.
- 12 In 1994, India signed an agreement with Oman for the import of gas by a sub-sea pipeline. The project did not take off due to the costs involved and inability of Oman to meet India's demand. A gas pipeline from Oman to India in today's context means evacuating Iranian or other West Asian gas.

Pars which are believed to hold 350 trillion cubic feet of undeveloped reserves.

India's energy diplomacy will be tested as China already has a major head start in Turkmenistan and Kazakhstan. The Central Asia-China Gas Pipeline – with three lines in parallel, each running for 1,830 km – starting at the Turkmen-Uzbek border city Gedaim and reaching Horgos in China's Xinjiang region is already operational and will transport 1.9 trillion cubic feet per annum by end-2015. The point is that Turkmenistan has other options if India chooses to vacillate due to the security implications of TAPI passing through the badlands of Afghanistan and Pakistan.

India's Experience with Pipelines

India needs all the gas that it can secure through transnational pipelines for a simple reason. Its energy requirement is a future engine of global growth. Primary energy supply has to increase several-fold to meet the requirements of a fast-growing economy like India. The share of gas in its energy mix is currently 11 per cent and is expected to grow to 20 per cent by 2030. Natural gas is a clean fuel and will be increasingly used in the power and fertiliser sectors. These two sectors, in fact, are the biggest contributors to natural gas demand in the country at present and in the future as well.

According to "Vision 2030" Natural Gas Infrastructure in India, a study commissioned by the India's Petroleum and Natural Gas Regulatory Board, natural gas demand in the country is realistically expected to grow from 242.6 mmscmd in 2012-13 to 746 mmscmd in 2029-30.¹¹ Among the various sectors, gas-based power generation is expected to contribute the highest – in the range of 36 per cent to 47 per cent – to this demand in the projected period, 2012-13 to 2029-30. The fertiliser sector follows with a share of 15 per cent in the 2029-30.

Meeting this booming demand is indeed a challenge. India has to rely on increasing domestic production, resort to imports of LNG and participate in transnational gas pipelines. Unfortunately, domestic production is sharply declining, especially in the Krishna-Godavari D6 field. In 2010-11, natural gas production was 143.1 mmscmd and steadily fell to 91 mmscmd in 2014-15. Imports of LNG are taking place through costlier long-term contracts while spot prices are much lower. Domestic gas supply is projected to rise less steeply from 145.7 mmsmcd to 474 mmsmcd from 2012-13 to 2029-30.

Demand for natural gas thus is expected to outstrip supply by a growing margin. The upshot is that India must explore all means of increasing supply, including concluding transnational pipeline deals to take care of its burgeoning requirements. However, its track-record with transnational gas pipelines so far is not a successful one. Shri Dharmendra Pradhan, India's Minister of State for Petroleum and Natural Gas, in a written reply to a question in the Lok Sabha on 16 March 2015 only mentioned the 1,814 km long TAPI project that is envisaged to supply 38 mmscmd of natural gas to India (see Box).

The Minister's reply mentions that Siddho Mal and Sons through a project development vehicle, South Asia Gas Enterprise, has proposed a deep sea natural gas pipeline from Middle East (Oman) to India.12 The project is not under the consideration of the Government at present. No agreement has also been signed with various countries including Bangladesh, Myanmar and Russia to construct oil and gas transnational pipeline projects for building up cooperation in oil/gas to augment India's supply. In early December 2005, negotiations over a transnational pipeline between the India and Bangladesh fell through.

The Myanmar-Bangladesh-India pipeline project did not materialise as Myanmar decided to sell gas to Petrochina from a field in which Indian oil companies had a combined stake of 30 per cent.

Official talks on the Iran-Pakistan-India (IPI) pipeline¹³ began in 2005 but India withdrew from the project in 2009. There are no prizes for guessing that this had a lot to do with the grand bargain struck between India and the US on civilian nuclear energy cooperation in 2005. The US consistently expressed its "concerns" over the Iran gas pipeline as it believed that revenues from this project will fund Iran's nuclear weapons programme. India and Pakistan, however, felt that IPI was highly advantageous as it creates inter-dependencies between them in their elusive search for peace.

The then US Secretary of State Ms. Condoleezza Rice conveyed America's "concerns" to the sub-continental neighbours when she visited in March 2005 and offered to cooperate with India on nuclear energy as a *quid pro quo*. The threat that going ahead with the proposed IPI project might entail provisions of the Iran and Libya Sanctions Act — which imposes sanctions on non-US companies investing in oil and gas business worth US\$ 20 million or more in Iran — was also held out. However, it is a different matter that this Act has so far remained only on paper as it not been invoked against any country.

From India's point of view, the grand bargain brought with it recognition of being a "responsible state with advanced nuclear technology". This, in turn, entailed responsibilities and obligations such as supporting international efforts to limit the spread of nuclear enrichment and processing technologies or weapons of mass destruction. As Iran has been targeted precisely on this account, India as a strategic

partner of the US could not afford to be indifferent to American "concerns" on the gas pipeline project. All of this was reflected in India's anti-Iran vote at the IAEA in 2005.

India also had "concerns" of its own regarding this gas pipeline project passing through Pakistan. The big fear was of sabotage and that transit fees will fund *jehadi* terrorism in Pakistan. Pricing also was a highly contentious issue: The cost of gas at its border was uneconomical, may be as much as 40 per cent costlier, as Iran had to factor in US\$ 800 million in transit fees and US\$ 100 million as an extra payout to the Pakistan Army for guarding the pipeline! India wanted this gas as low as US\$ 2 million British Thermal Units (mmbtu), but the offer price was higher than US\$ 3 mmbtu.

That the Iranian pipeline deal was fraught with "many risks" was admitted by none other than India's the then Prime Minister in an interview to *The Washington Post* when he visited the US in July 2005. Considering all the uncertainties of the situation there in Iran, the PM said he didn't know if "any consortium of bankers would probably underwrite this (project)", adding that "we are in a state of preliminary negotiations and the background of this is that we desperately need the supply of gas that Iran has". This interview was the clearest indication that India was in no hurry to proceed with this project.

India backed out from the project in 2009 citing several critical issues like the delivery point of Iranian gas, the project structure including project finance, guarantees related to safety of the pipeline and security of supply, pricing of gas, location of international seat of arbitration were yet to be resolved. Iran signed a separate deal with Pakistan to supply gas in early 2010. There was mention of US\$ 500 million credit being given to build Pakistan's

- Dr. R.K. Pachauri, the then DG of the Tata Energy Research Institute, and Ali Shams Ardekani, the then Deputy Foreign Minister of Iran, are credited for visualising this overland gas pipeline project.
- However, in March 2010, India called on Pakistan and Iran for trilateral talks to be held in May 2010 in Tehran.

- Micha'el Tanchum "Modi and the Sino-Indian Game for Iranian Gas", The Diplomat, 17 July 2015
- In 2010, OVL submitted a revised Master Development Plan for producing 60 per cent of the 21.68 trillion cubic feet of in-place gas reserves.
- Sanjeev Choudhary "New Delhi set to seek revival of Iran-Pak-India gas pipeline", *The Economic Times*, 28 July 2015.
- Guillame Lavallee "Iran deal fuels tussle for gas pipelines in Pakistan", *AFP*, 23 July 2015.

section of the gas pipeline. But in December 2013 that offer was withdrawn by Iran. This was India's experience with the transnational IPI project.

Great Gaming with Iran

India's diplomacy to ensure greater energy security through transnational gas pipelines has entered a challenging phase. Iran is central to this objective. India's search for an alternative land-sea route for TAPI through Iran also is partly due to the China factor. The dragon is helping to construct most of Pakistan's part of the Iran gas pipeline. The PM's diplomatic riposte to this move was to suggest that multiple options to transport gas from Turkmenistan via Iran must be explored. Whether he reportedly made a pitch for an Iran-Oman-India subsea pipeline to transport Turki gas has not been confirmed.

India sent a delegation of oil industry executives to Iran in end-July 2015. Their agenda included discussion of the stalled progress on IPI and developing the Farzad -B Block. In 2008, ONGC, Oil India and Indian Oil Corporation discovered gas in this block and even prepared a plan to recover 12.8 trillion cubic feet of gas. 16 Like the IPI project, this plan had to be abandoned due to the threat of the US sanctions.¹⁷ As the latter are likely to be lifted sometime in 2016, India is naturally keen to get this block for development. Developing the strategic Chabahar port, however, deserves to be India's topmost priority.

A deep-sea pipeline project is imperative as India's "concerns" on IPI remain even if the US re-establishes relations with Iran. The overland pipeline to Pakistan (and eventually to China) bids fair to be a reality with or without India's participation. Iran has already built its section of the 1,100 mile

pipeline which eventually links its South Pars gas fields to Nawabshah city in Pakistan. As part of its US\$ 46 billion economic corridor project, China is helping build the section of the pipeline between Nawabshah and Gwadar. Pakistan will build the remaining 80 km of pipeline to Iran.¹⁸

IPI thus is over as far as India is concerned. Beijing has been waiting in the wings to ensure that the pipeline extends to China through the Karakoram highway. Shri Mani Shankar Aiyar, during his stint as India's petroleum minister, even contemplated extending IPI to Yunnan! Considering the close relationship between Pakistan and China, he felt that shutting down supplies was unlikely when the ultimate beneficiary is a close ally. But China then didn't take it seriously as its interests were better served by a pipeline from Myanmar. Not anymore, as it has perhaps already taken India's place in this project!

The swift-footed dragon has often in the past seized the advantage over the trundling elephant! Besides the IPI, Chinese oil giants like CNPC and CNOOC successfully trumped Indian oil companies in securing stakes in oil and gas fields in Sudan and Angola. Even in Central Asia, PetroKazakhstan, a US\$ 3 billion Canadabased exploration firm with oilfields in Kazakhstan, went to the Chinese despite a higher bid from India. India so far has been flat-footed in comparison with the more aggressive Chinese to secure oil and gas fields in the Caspian Sea region.

The upshot is that a deep-sea route to transport Iranian and Turkmenistan gas is more suited to India's interests than IPI and TAPI passing through hostile territory. SAGE has a decade-old project of a 1,400 km long Middle-East to India Deepwater Pipeline (MEIDP) that starts from Chabahar and crosses the Arabian Sea

at depths of two miles to reach Porbandar in Gujarat, bypassing Pakistan's exclusive economic zone (EEZ). As this project is strategically important for India, it must be fast-forwarded and dealt with on a priority basis. Such projects take off once they are strongly supported at the highest level of government.

Pakistan's EEZ being extended by another 150 km by the United Nations' Commission on Limits of Continental Shelf on March 2015 per se should have no bearing on the Iran-India deep-sea pipeline route. It would only entail a further detour to completely avoid the new limits of the Pakistan's EEZ. Pakistan's sensitivities to any pipeline benefitting India traversing through its EEZ are of course well-known. In 1995, for instance, it refused to grant permission for a pre-feasibility study for a shallow offshore gas pipeline from Iran to India outside the territorial waters of Pakistan. To be sure, there are also concerns whether Pakistani non-State actors with State complicity will sabotage it.¹⁹

An Iran-India deep-sea pipeline is not only desirable but feasible as well. Indian officials have been on the learning curve, thanks to several rounds of bilateral and trilateral discussions that have taken place on IPI since 2005. In contrast to the 1990s, when there was skepticism regarding the technical feasibility of deep-sea pipelines, the technology is now available, thanks to advances in seafloor mapping technologies, deep-sea pipe-laying vessels, undersea robots that can carry out construction and repair jobs at depths of 3,500 meters and more. The project thus is eminently do-able.

However, there are technical risks that have to be factored in. Most of the ultradeep pipelines that have been laid till now – like from Norway to the east coast of England that was completed in 2006 – run

close to the coastline, which makes the jobs of repair and maintenance a lot easier. "The Iran-India route is hundreds of mile out to sea – and it runs across an underwater faultline associated with the Owen Fracture Zone, an active seismic area." There are only a few ships and deep-sea craft that have the capability of pulling off the feat of engineering for such a deep-sea pipeline.

The deep-sea pipeline option, however, does, take care of the geopolitical risks that made India wary of getting gas through two over-land projects. But does a deep-sea gas pipeline from Iran to India make commercial sense? Yes, if it is available at a cost cheaper than the LNG India imports from countries like Qatar at US\$ 13 mmbtu. The global market for natural gas has dramatically changed with oil at US\$ 60 a barrel and the shale gas revolution. Now with excess gas supplies – a state of affairs that will persist for a while – Henry Hub spot prices have hit lows of US\$ 2.81 mmbtu in mid-June.

"Iran's return is set to keep oil prices lower for longer, alongside ever cheaper shale oil and peaking world oil demand" argued Norbert Ruecker, head of commodities research at Julius Baer. But how much cheaper will be Iranian gas? Players like SAGE and Fox Petroleum who have proposals for the MEIDP and the Oman-India Multi-Purpose Pipeline (OIMPP) to transport Iranian natural gas via Oman to a receiving terminal in Gujarat have put out broadly similar estimates. India could get gas at a well-head price of US\$ 1.5 to US\$ 1.75 mmbtu which would mean a landed cost of US\$10 mmbtu on the Indian coast.

Clearly, this is less than long-term LNG contracts that make India pay US\$ 13 mmbtu. Fox Petroleum's Chairman has also reportedly estimated that gas imports to India via OIMPP would be less expensive than India's LNG imports by

- I am grateful to Ambassador VS Seshadri, Vice Chairman of RIS, who raised this question.
- Richard Martin "With nuclear deal, India looks out to Iran for natural gas", MIT Technology Review, 27 July 2015.

- ²¹ Talmiz Ahmad "The Iran-Pakistan-India gas pipeline project", *Seminar*, April 2008.
- Thanks again to Ambassador V.S. Seshadri for this suggestion.
- This was true even for IPI. See S. Pandian "The political economy of trans-Pakistan gas pipeline project: assesing the political and economic risks for India", *Energy Policy*, 33, 2005, Elsevier.

US\$ 1.5-2 per mmbtu. It is not clear whether this includes the tariff for using the pipeline estimated at US\$ 2 to 2.5 mmbtu. But there are savings when compared to IPI as there is no transit fee. Iran's imminent participation in the world oil and gas markets and influx of Australian gas has ensured that LNG spot prices are US\$ 7-8 mmbtu. This scenario is unlikely to change.

To enhance its options on LNG, India has intensified its investments in Mozambique. In the first half of 2014, ONGC Videsh Limited and Oil India Limited completed the acquisition of a 20 per cent stake in Area 1 of the Rovuma gas block at a cost of \$5.1 billion. This is in addition to 10 per cent already held by Bharat Petro Resources Limited. Mozambique plans to produce 34 million tonnes of LNG from the Rovuma block. If production begins in 2018, India can receive supplies from 2019 onwards. The cost would have a bearing on the economics of deep-sea gas pipelines versus LNG imports.

As Talmiz Ahmad rightly observes, "pipe-line projects are successful only if they are founded on a strong commercial base" 21 and, at the same time, effectively immunised from the vagaries of day-to-day political interference through official and commercial agreements. According to the *Pipeline and Gas Journal*, 109,066 miles of pipelines are planned or are under construction all over the world in

2014. With such extensive progress, the international community has developed laws, rules, norms and practices to ensure that pipelines can to a considerable extent be insulated from day-to-day politics.

India's comfort-levels with this deep-sea pipeline proposal would be greater if it can rely on Iran (and Turkmenistan as well) to secure gas, especially if it can persuade them to be co-investors so that they have a greater stake in this proposal.²² Considering the risks of the TAPI project, India is looking to Iran as a gateway to Central Asia, especially Turkmenistan. India must therefore engage with Iran and take up its President's offer to invest in infrastructure projects. When cabinet ministers of western nations are heading to Tehran to participate in the oil and gas 'candy store', has India done the right thing by sending a joint secretary-level officer to lead a delegation of oil executives to Iran?

India's big challenge is that its economic interest in the deep-sea pipeline may not necessarily be in convergence with the political and strategic objectives of Iran.²³ Does India have the same role as earlier when Iran sought it out as a strategic partner to counter the US pressure? India may explore for offers for investing in Iran. A post-sanctions Iran has several options for its oil and gas, including supplying gas to Europe through its pipeline to Turkey. India must move fast on the deep-sea pipeline project.

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Core IV-B, Fourth Floor India Habitat Centre Lodhi Road, New Delhi-110 003, India. Ph. 91-11-24682177-80 Fax: 91-11-24682173-74-75

Email: dgoffice@ris.org.in Website: www.ris.org.in