



## Energy Security Dialogue

### How can India minimise supply risks for imported oil and natural gas?

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Rising oil prices, volatility in energy markets, and uncertainty of fuel supplies from producer countries, has brought India's energy supply risks at the centre of discussions about the country's energy security. In a recent study conducted at TERI, India was ranked third in an oil vulnerability index of 26 countries, with only Philippines and Korea emerging as more vulnerable.<sup>1</sup> With India's crude oil import valued at Rs. 2192 billion in 2006-07, India's oil import dependence stood at 71% - a figure projected to reach 90% by 2031. In 2031, India's import dependence for natural gas is projected to reach 66%, from almost negligible levels in 2001. The country's fuel supply problems are compounded by its dependence on a small number of politically volatile countries for imports. The stakeholder dialogue sought to map India's oil and natural gas supply risks, and their gravity and impact in the near and long term. It further identified the steps India needs to take to manage these risks.

The stakeholder dialogue addressed the following questions:

- What are the significant risks that India faces in ensuring a steady supply of oil and natural gas?
- How prepared is the country to handle a fuel supply crisis? Is this level of preparedness adequate?
- What measures need to be taken to diversify India's supply sources? What country choices are available to India, and what parameters does the country need to take into account in assessing the feasibility and safety of supplies from these countries? What are the barriers to diversification?
- What initiatives can India undertake to enhance security of sea lanes of communication?
- What role can India play in designing and implementing a sustained international producer-consumer dialogue to mitigate oil risks?

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<sup>1</sup> The index took into account both market and supply risks. It was developed on the basis of four market risk indicators: (i) the ratio of value of oil imports to GDP, (ii) oil intensity, (iii) GDP per capita, and (iv) oil share in total energy supply; and three supply risk indicators: (i) ratio of domestic reserves to oil consumption, (ii) exposure to geopolitical oil market concentration risks, and (iii) market liquidity.

The session began with two keynote presentations. Ms Rekha Krishnan, Visiting Fellow, TERI, discussed supply risks for imported oil for India, highlighting market concentration – increasing reliance on the oil-exporting countries of Saudi Arabia, Iran and Iraq; geo-political risks (threat to the country's supplies and routes); adverse market liquidity (ratio of world oil imports to net oil imports); and declining spare capacity the world over. Mr. R K Batra, Distinguished Fellow, TERI, discussed the natural gas demand scenario in India and the possibilities for gas trade. Discussing the Burma-India pipeline, Iran-Pakistan-India pipeline, Turkmenistan-Afghanistan-Pakistan-India pipeline, and the Oman-India sub-sea pipeline, he highlighted the main issues that need to be considered: gas reserves certification, field development, well-head price, construction/ownership of pipeline, security, transportation & transit fees.

The discussion brought forth some key issues that mark the country's engagement with oil and gas suppliers. That India's incremental share in incremental world supply is expected to be 12-20% was highlighted as a key source of risk. While the discussion focused on mitigating supply risks for imported oil and gas, the need to reduce hydro-carbon dependence was emphasised at the outset.

### ***Key takeaways***

- Diversification of oil and gas suppliers is key to ensuring energy security. The country must target building a good portfolio so that risks are spread across sources.
- All fuels need to be seen as part of a complete energy basket, in order to pursue an informed and coordinated energy strategy.
- The country needs to develop its capacity to assess political risks effectively. This should not only be limited to geopolitical and security risks, but should take into account corruption in state structures and internal supplier decision-making.
- All fuel markets are not equally liquid. There is a need to understand market dynamics specific to oil and natural gas.
- There is a need to tie more long-term contracts for gas while simultaneously focusing on increasing efficiency in spot markets. The possibility of locating gas-intensive industries (such as fertilizers) outside India was also discussed.
- There is a need for the country to assess its storage capacities for fuels. If need be, India could buy an option on another country's storage.
- Multi-sectoral engagement and cross-investments are an effective way of building inter-state relationships. With regard to equity investments, it was suggested that players from host countries should be allowed to buy stakes in energy-related industries such as refineries in India, so that there are mutual stakes in continuing engagement.
- Any enterprise in an energy-producing country must earn a "social license" to operate, and ensure community support.
- China is giving India competition in acquiring assets abroad and in negotiating trade contracts. It is imperative for India to take this into account in devising its energy securing strategy. It was suggested at the dialogue that there should be a

- detailed study of China's external energy strategy, in order to understand the country's policies and to examine them for lessons for India.
- India needs to encourage overseas engagement of private firms. Also, the country needs more oil trading companies.
  - If there is a supply disruption (for instance blockade of the Strait of Hormuz), the stakeholders suggested that many energy importers and big players will be affected, who will then play an important role in resolving such a crisis. India therefore does not need to dwell over crisis management strategies for such situations.
  - Since many supplier countries are concentrated in West Asia, India should seek to institutionalise its engagement with the region. The discussions also brought forth the possibility of instituting an energy consumers' cartel, and establishing a sustained consumer-producer dialogue, particularly for oil.
  - There is a need to take into account domestic end tariffs which have a direct influence on production/consumption patterns which determine supply risks.

The discussion also brought forth issues for further thinking, for instance, whether peak oil should be seen as a supply constraint, and whether the country should develop expertise in hedging. Chairperson, Prof. S L Rao, Director, Institute for Social and Economic Change, Bangalore, urged the group to draw linkages between supply risks and domestic energy pricing, stating that subsidies take away flexibility from energy and foreign policies. He said that while there may be risks/security threats enroute oil and gas pipelines, these projects must be pursued, if the resultant dependence is not overwhelming.