

New Threats to Oil and Gas in West Asia: Issues in India's Energy Security

Gulshan Dietl

Abstract

Unlike other aspects of non-traditional security, energy security has been very closely linked with military security. Very often, it is the powerful state-consumers seeking to preserve an uninterrupted supply of energy at an affordable price, who threaten and use military force. At times, it is individuals and groups within the energy-producing countries seeking to resist energy-driven foreign interventions, who disrupt the supplies. The energy-military security nexus is at its peak in the present circumstances - mainly in Iraq, but also in the energy-rich West Asia. The paper proposes to examine the global security/insecurity of energy and its likely implications for India. Without giving up diversification and self-reliance as options, we need to accept the fact that West Asia would remain the source of an overwhelming proportion of India's oil and gas imports. India's energy policy, in the circumstances, will have to proceed from this basic given.

— * —

Military/Non-Military Security

Security has been the central issue in international affairs. Traditionally, it meant security of a state under attack from another state, which could result in war in which case threat, actual use and management of military force would be considered. With a greater diffusion of conventional weapons and a wider proliferation of the Weapons of Mass Destruction (WMD) since the end of the Cold War, security has acquired an even larger profile. It has, additionally, become a contested concept. Security for whom: states, groups or individuals? Security from whom: states, non-state actors or nature itself? As the debate continues, there is an increasing acceptance of a broad, holistic understanding of the term that incorporates what is variously called comprehensive security, human security, non-military security, non-traditional security and so on. It is, thus, perfectly legitimate to speak of gender

security, economic security, societal security, environmental security, food security, and of course, energy security.

In fact, unlike other non-military aspects of security, energy security has had the most direct connection with the narrow, military concept of security. During the First World War, Winston Churchill's readiness "to shed a drop of blood for every drop of oil" remains the most quotable quote to illustrate the point. A few decades thereafter, President Jimmy Carter enunciated what came to be known as the Carter Doctrine. In a State of the Union message in January 1980, he said, "An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America and will be repelled by any means necessary including military force."¹ The implementation of the Doctrine saw the creation of an 110,000-strong, fast-moving, hard-hitting Rapid Deployment Force. Churchill intended to secure energy during wartime by military means. Carter was prepared to secure energy in peacetime by military means.

The official utterances have been formulated into military doctrines and have been backed up by actions. The American projections of power, its extensive military presence and its wars in and around the energy-rich West Asia demonstrate the energy-military nexus in the security field. Individuals and groups, who are seeking to resist external control of their energy resources, have now joined the battle.

World Energy: An Overview

There are several criteria on which availability of oil is calculated: proven reserves, probable reserves, possible reserves, contingent reserves, and likely reserves. Proven reserves are those that are technologically feasible and economically viable to extract and market. The total proven reserves of oil in the world are roughly one trillion barrels. Except for the north and south poles, deep-sea offshore fields, the American reserves under Alaska, areas along the international borders and strife-torn places, technologically feasible exploration in other parts of the world has already been done.

The existing technology does not promise dramatic new discoveries. As technology makes further strides, seismic probes and satellite imaging would help locate with greater precision the existing reserves. Economic viability presents different but similarly difficult sets of problems. Since oil prices through the 1990s were low, financial investments were not rewarding. In the past few years, as the

prices have soared making fresh investments attractive, a new variable has entered the calculations. The threats and uncertainties have generated a sense of insecurity in energy production and transport. Therefore, as the probability and magnitude of attacks, interventions, invasions, occupations and insurgencies on energy infrastructure increase, the investment prospects go down. Increasingly, an incorrectly so-called 'terror premium' is being factored into the long-term price-setting formulae.

According to the International Energy Agency (IEA), the total investment requirement for energy-supply infrastructure worldwide over the period 2001-2030 is US\$ 16 trillion. It is needed to expand supply capacity and to replace existing and future supply facilities that will be exhausted or become obsolete during the projection period.² World consumption of oil is 76 million barrels a day (mbd); and demand is projected to go up to 119 mbd in 2025. Supply figures do not tally with the projected demand. World oil production is expected to peak between 2010 and 2020 at 80 mbd and the production from all sources (coal, shale, synthetics, extra-heavy and deep-water, polar as well as gas) will peak in 2015 at 90mbd. The Organisation of Petroleum Exporting Countries (OPEC) production will peak in 2020 at 40 mbd. With half the world's remaining conventional oil reserves, West Asia is projected to meet almost two-thirds of the increase in global oil demand between now and 2030. Non-conventional oil (including gas to liquid) will garner a significant and growing share of the market over that period, largely from Canada and Venezuela.³

As a source of energy, oil is cheap, clean and easy to transport. Gas is cleaner than oil, but it is not cheaper and is definitely not easy to transport. Both of them are finite resources, and will be exhausted. At present, Saudi Arabia is the only country with a spare capacity; other oil producers might be able to activate their surge capacity for a while, but it cannot be sustained over a period. There are physical constraints obstructing optimum production; the wells are over-stretched, the pipelines need repairs, and the refineries require upgrading. The Iraqi oil infrastructure is a case in point. From 1980 onwards, the country has been in a state of war, barring a short period between the end of the Iran-Iraq war and the beginning of the Gulf crisis. From 1990 onwards, it was, till very recently, subjected to the most stringent and punitive sanctions. The US war on Iraq in 2003 was driven by energy considerations, among others. After having occupied Iraq for eighteen months, the US has left its energy infrastructure in greater shambles.

In the meanwhile, the Caspian Sea oil potential has come under close scrutiny, which has deflated the earlier claims suggesting that the region would be the Gulf

of the 21st century. According to most estimates, the oil reserves there are anywhere between 20 and 30 billion barrels.⁴ There have been few new discoveries in recent years to justify an upward revision of the estimates. Saudi Arabia alone has at least ten times as much. And West Asia twenty times as much. The Caspian oil may not even prove cost-effective given the high cost of extraction and transportation in addition to a host of complicated technical, geological, logistical and political obstacles which block its speedy development. Currently, the production there is barely 1 mbd, two-thirds of which is domestically consumed.

Exports from Russia, whose total energy resources might be comparable to those of Saudi Arabia and whose production matched that of the latter in 2002, has hit a ceiling till new pipelines are built. The struggles between the oil companies and the Russian government, which owns the pipelines, have slowed the construction of new routes to an ice-free port in the West and to China and Japan in the east. "If the export routes are opened, the oil will fly like a cork from a bottle of ex-Soviet champagne," according to Eugene Khartukov, Director of the Moscow-based Centre for Petroleum Business Studies.⁵ The jailing of the former Yukos boss Mikhail Khodorkovsky for alleged fraud and tax evasion has scared off foreign investors who could bankroll further upgrading of the oil assets.⁶

Through millennia, wars have been fought for God, glory and gold. The scramble for the black gold, that is oil, validates this conventional wisdom. To date, the powerful state consumers have successfully controlled the physical ownership, volumes of production, direction of trade, and currency of exchange. Individuals and groups, who are seeking to change the global energy order, now join the battle. It is an uneven battle, and the outcome is far from certain.

The situation in West Asia is particularly grim. The 1973 oil embargo, the Iranian revolution, the eight-year-long Iran-Iraq war, Iraq's invasion of Kuwait and the consequent embargo on supplies from Iraq and Iraq-occupied Kuwait, the US war on Iraq and the subsequent occupation, the targeting of energy assets and oil-workers in Iraq, Algeria, Saudi Arabia, and a likely spread and increasing lethality of such acts, bring out a direct connection between energy security and military security. They are also indicative of a connection between events in West Asia and the world's energy security. It is important to note that during these critical phases, the only alternative to disrupted supplies has come from within the region itself.

With the available technology today, the hydrogen fuel cell takes six-times as much energy to produce as it replaces consumption. Hydrogen production is from

fossil fuel at present. If produced from renewable sources like biomass or solar energy, hydrogen could become an independent energy source, qualitatively changing the energy scenario. It would replace the fossil fuel at a cheaper cost, and be a renewable source of energy. It would also be used to make the existing reserves useable; for instance, the Canadian oil sands are so heavy that hydrogen needs to be injected to make the tar light enough to flow into the pipeline. There may still be revolutionary technological breakthroughs tomorrow, which are not even possible to foresee today.

Energy Security/Insecurity

Several events in the past 25 years have led to major supply disruptions from West Asia. The 1973 embargo lasted six months at the height of which the net loss of supplies was 4.4 million barrels a day (mbd), or only about 9 per cent of the total 50.8 mbd that had been previously available. Confusion in the market, coupled with widespread uncertainty about the future supply of West Asian oil, led to panic buying, further exacerbating the shortage.

The Iranian revolution in 1978-79 removed about 3.7 mbd of oil for six months. By late 1978, a strike by the oil workers virtually shut down production and halted exports. Panic spread following the fall of the Shah in January 1979. This precipitated panic buying in the West and Japan. Spot market prices increased and the oil companies scrambled to build stocks in anticipation of further price increases. The result was an artificial increase in world demand of 3 mbd above actual consumption.

In September 1980, Iraq invaded Iran, producing yet another disturbance in the Gulf. There was an upward pressure on the prices, which rose from US\$ 14 per barrel at the start of 1979 to more than US\$ 35 per barrel in January 1981. Crude prices remained high throughout the early stages of the war. Together, the Iranian revolution and the Iran-Iraq war magnified uncertainty and speculation regarding the future availability of oil from the Gulf.⁷

On August 2, 1990, Iraq invaded Kuwait. The day marks a complete U-turn in the narrative of oil embargoes. Since then, each successive embargo has been imposed by the consumers against the producers - rather than vice versa as was the case till then. The United Nations embargoed oil from Iraq and Iraq-occupied Kuwait, which totalled some 4.3 mbd representing almost 7 per cent of the world supply. Crude prices shot up from US\$ 16 per barrel in July 1990 to US\$ 36 per barrel in September.

After fighting the ‘mother of all battles’, Iraq was subjected to a ‘mother of all resolutions’ in the form of UNSC Resolution 687. It imposed sanctions on Iraq till it recognised Kuwait, returned the Kuwaiti prisoners of war and properties, improved the human rights situation in the country, destroyed its nuclear, biological and chemical war potential and the missiles to deliver the same.

In August 1996, the US imposed a unilateral trade embargo against Libya and Iran and extended it to any country or company investing more than US\$ 20 million in their oil and gas sectors. Non-compliance was threatened with various forms of penalisation. Apart from embargoes - imposed either by the producers or by the consumers - there are other considerations that influence security of energy supplies from West Asia. Political stability is a crucial ingredient in oil production and price stability. Till the US war on Iraq in 2003, domestic dissent had not targeted energy infrastructure in any of the oil producing states in the region. It had, however, exhorted the oil company workers to go on strike as during the revolution in Iran; or it had plunged an entire state into a prolonged state of turmoil as in Algeria; or had resorted to terrorist bombings as in Saudi Arabia.

The entire region is criss-crossed with oil pipelines and dotted by oil and gas fields, handling facilities, and export terminals in the Gulf and in the Red Sea. All these facilities, which enable the governments to pump enormous amounts of oil everyday, have always been potential targets for anyone intending to inflict damage on the rulers or their trading partners-cum-guarantors. “If you can get access, all you need is a rag and a box of matches to set these places on fire”, according to a manager at a Western oil firm in Saudi Arabia.⁸ Even if it were not as easy as that, it has repeatedly been shown to be possible.

Since the US war on Iraq, there have been more than 80 attacks on Iraqi oil facilities. Its sole export pipeline from Kirkuk to Ceyhan in Turkey has been subjected to repeated sabotage. From April 2004 onwards, the ports of Basra and the oil-loading terminal at Khor al-Amaya in the South of the country have also been targeted. Two-thirds of Iraqi oil production is in the South.

Saudi oil assets have so far been secure. There are, though, attacks on the foreign military as well as against civilian presence in the country. The bombing of the US military base in 1996, which killed 19 US airmen and injured 400 people, had an immediate effect on world oil prices with the international benchmark crude trading at US\$ 19.50 a barrel, a dollar higher than on the eve of the attack. In a single month of May 2004, expatriates’ compounds in Yanbu and Khobar were targeted, killing scores and sending an ominous message to foreigners in the

Kingdom. The acts are clearly intended to shake market confidence in the Saudi capacity to deliver, to snap ties between the Saudi ruling elite and its foreigner protectors and to overthrow the regime.

The situation in Saudi Arabia is critical as stoppage of production there could bring the wheels of the world to a grinding halt. The Saudis have repeatedly made up for the disruptions but who could make up for the Saudi losses? It is a nightmarish scenario that the world refuses to contemplate. In the circumstances, the *USS Lyte Gulf* leads ten naval vessels, which are patrolling the Iraqi oil terminals. The US is also working closely with the Saudi and Iraqi navies to protect oil-loading facilities in the region.

Roughly 90 per cent of global oil is transported by sea; and oil tankers represent the weakest link in the oil chain. An oil tanker could have a length of a quarter of a kilometre and a normal speed of 14 knots an hour. A small boat, in comparison, travels at 70 knots an hour. Short of shooting and sinking the boat, the tankers are sitting ducks. Sea-borne commerce is vulnerable on a second count as well. Today, there are as many as 1.2 million seafarers. Saboteurs could infiltrate them with intentions of hijacking the tankers or carrying out piracies or suicide bombings. From July 1, 2004, the new International Security Regulation Code is effective for maritime transport worldwide. While the US has insisted on its strict observance for ships leaving and reaching its shores, its application in other areas may not be as meticulous for some time to come.

A third point of vulnerability is the choke points that sea-borne commerce has to traverse. The narrow straits and waterways close to the coasts are especially at risk. The Hormuz Strait through which 20 per cent of world's crude transits, the Strait of Malacca through which oil supplies to Northeast Asia passes and the Strait of Bosphorus, which straddles Europe and Asia, are particularly sensitive. The French oil tanker *Limburgh* that was attacked in the Yemeni waters in October 2002 and leaked for weeks, demonstrates the vulnerability of as also the ecological consequences for oil trade.

A fourth point of vulnerability is the pipelines. There are more pipelines crossing the international borders than ever before. The heaviest concentration of pipelines is in West Asia and its vicinity. The US is promoting the grandiose 2000-kilometre long Baku-Tblisi-Ceyhan pipeline to carry oil and gas from the land-locked Central Asian states to Western consumers. It envisions gathering the oil exports at Baku in Azerbaijan, thereafter crossing Georgia to terminate at Ceyhan in Turkey's Gulf of Iskenderan on the Mediterranean. The Saudi East-West Pipeline (Petroline)

with a capacity of 5.1 mbd, runs across the state to the port of Yanbu on the Red Sea. There are moves to export Kuwaiti oil through a pipeline to Saudi Arabia and oil from the UAE through a pipeline to the Omani terminal at Mina al-Fahal near Muscat - with a possible spur to Qatar. The Chinese are helping to build a north-south oil pipeline in Iran, which will run from the Caspian port of Neka in the north to the refinery in Tehran. It will be a short-haul route of 400 kilometres. The Trans-Afghan Gas Pipeline (TAGP) envisages construction of parallel downstream gas and oil pipelines, a fibre-optics communication network and a highway system between Central Asia and Pakistan.⁹ The TAGP is projected to run 1,460 kilometres and cost US\$ 3.2b.¹⁰ To date, pipelines have only been attacked in Iraq. That, of course, is no insurance against a future contingency.

West Asia, given its geo-strategic location as also its geological resources, is a highly penetrated region in the world. Today, one-third of the oil traded in the global market goes to the US constituting 60 per cent of oil that is imported. By 2020, the percentage is expected to rise to 70. As the US stake in global energy increases, so may its propensity to wage wars to secure the same. China became a net oil importer only a decade back, making it one of the late arrivals in the global energy game. By 2020, it is expected to import eight million barrels a day, which would be four times the projected domestic output. By then, China would have become the second largest consumer of oil - after the US. Fierce competition for energy resources between the two may result in an even deeper and destabilising external presence in the region.

Production and Demand of Energy in India: An Appraisal

The discovery of hydrocarbons off the Indian West Coast in 1974 dramatically changed the nature of domestic petroleum production, which had been dominated by the onshore oilfields of Assam and Gujarat. Within five years, offshore oil constituted 37.86 per cent of the total demand. Three years later, it surpassed onshore production and constituted 61.14 per cent of the total production and as much as 38.48 per cent of the total demand. In 1989-90, it provided 21,716 million tonnes (mt) of crude oil, accounting for as much as 40.53 per cent of the total demand.

Expectations that the output of oil and natural gas would continue to rise were dashed thereafter. In fact, there was a net decline in the output of crude to 27mt in 1992-93. Production of natural gas too suffered concurrently as associated gas constituted a large proportion of the total output. Free gas supplies were not available in the required volume and they were not effectively exploited in areas

like Tripura, where there were problems in establishing projects, which would ensure regular off-take of natural gas.¹¹ During 1993-94, 10.4 per cent of gas produced was flared, as satellite oil fields were not yet connected to the integrated production systems. In the Northeast, this was as high as 30 per cent.

The level of energy consumption in India is extremely low as is indicated by the per capita energy consumption, which currently stands at 317 kgoe as compared to 7,759 kgoe in the US. Though projected to increase by nearly 145 per cent by the year 2010, the average will still be about a fifth of what an average American consumes today. In fact, it is low even compared to some of the developing countries. Earlier, the rise in demand for petroleum products was mainly due to the growth of the transport sector, but now it is evident that increased use of gasoline for transport purposes, naphtha and natural gas for manufacturing fertilisers, and HSD and furnace oil for power generation are together responsible for the rising demand.¹² In monetary terms, India's energy imports amount to a little over US\$ 17 billion a year constituting the single largest item in the total import bill. Oil accounts for a third of the value of all items imported and it pre-empts 40 per cent of our export earnings.¹³

In the coming years, energy consumption in the Organisation for Economic Cooperation and Development (OECD) countries is projected to register a downward curve due to environmental considerations spelled out in the Kyoto Protocol as also due to their steady move away from high energy-consumption industries to information technology, electronics and communication industries, where the energy input is relatively low. On the other hand, demand for energy in Asia is going to be on the rise.

Today, India ranks sixth in the world in terms of energy demand, accounting for 3.5 per cent of the world energy demand. By the first half of this century, India is expected to be one of the top five consumers of petroleum products, ahead of industrialised countries like France and the UK and just behind Russia and China. According to the *Oil and Gas Financial Review*, by the year 2010, China and India are expected to have overtaken Japan as the two largest consumers of primary energy, followed by South Korea, Indonesia and Taiwan.¹⁴ In fact, the projected growth of oil consumption in India is even higher than that of China; it is 4 per cent as compared to China at 3.3 per cent. India is also one of the largest emerging gas markets in Asia-Pacific. The demand for natural gas in 2010-11 is projected to be 313 mcm and 391 mcm in 2024-25. As against this, the present domestic gas supply is 65 mcm.¹⁵

In the most optimistic scenario, domestic production of crude in India would meet only 33 per cent demand by the year 2005 and 27 per cent by the year 2010. The rest of the expected crude requirement of 159 million tonnes (mt) will have to be met by imports.¹⁶ An overwhelming share of imports originates in the Gulf and is likely to go on rising. India has taken a number of steps towards mitigation of the consequences of temporary shortages due to supply disruptions and towards development of long-term policies to avoid shortages due to medium or high price rise. A number of recommendations are being studied for implementation.¹⁷

By 2025, oil dependency is expected to climb to 78 per cent and gas to 91 per cent. During 2025, import dependence could go up to 80 to 90 per cent depending upon accretion of new reserves. In absolute terms import of nearly 200-300 million tonnes of oil would require huge dependence on West Asia. Today, 65 per cent of oil requirements are being met from West Asia. During 2025, the share of this region could go up as the share of OPEC countries in the overall availability increases from 29 to 43 per cent, as per EIA estimates.¹⁸

Energy Dependence in India

Every oil-shock in West Asia has had an inevitable adverse impact on the Indian economy. During the 1973 oil crisis, India's energy imports bill rose by over 50 per cent. The direct overall adverse impact of the 1990-91 crisis on India's balance of payment was estimated at Rs 5,180 crore. In 1991, India was to import 1.5mt of crude from Kuwait and 6.25 mt from Iraq. That figure included 4.5mt of oil that the Soviets were to transfer to India against rupee payment. Of the total of 7.75 mt, only 3mt had been delivered by the time the UN imposed sanctions. Thus, India had to shop for the extra 4.75 mt of oil in the spot market at a much higher price and against foreign exchange payment.¹⁹

In July 1996, the Indian government increased the price of all petroleum products - except kerosene, LPG and HSD - in an effort to reduce deficits in the oil pool account. In September, the US fired 44 missiles at the Iraqi targets in response to fighting between the two rival groups of Iraqi Kurds. As a consequence, Iraqi oil did not come to the market and world crude prices went up from US\$18 per barrel to US\$ 24 per barrel. The Indian government's calculations were totally upset: the Ministries of Oil and Finance made ominous predictions that the oil-pool account deficit - rather than going down from Rs 5,500 crore where it stood at in March 1996 - would go up to anything between Rs 15,500 crore to Rs

20,000 crore by March 1997, assuming that the world oil prices would not go up and the rupee would not be depreciated any further.²⁰

In March-April 2003, the National Democratic Alliance (NDA) government had to impose an unpopular 15 per cent hike in fuel prices. Soon after taking over, the Congress-led United Progressive Alliance (UPA) has had to raise the prices of petrol, diesel and liquefied petroleum gas. Kerosene was the only item left untouched to cushion the poor.²¹

Way Out, Way Forward

Over the years, India has taken a number of steps towards mitigation of the consequences of temporary shortages due to supply disruption and towards development of long-term policies to avoid shortages due to medium or high price rise. As mentioned a number of recommendations are being studied for implementation. The Approach Paper to the Ninth Five-Year Plan, 1997-2002, for example, recommended acquisition of acreage in other countries.²² The Approach Paper to the Tenth Five-Year Plan, 2002-2007 advocates dismantling of the Administrative Price Mechanism, restructuring and divestment/ privatisation of public sector undertakings, strategic storage of crude oil and petroleum products, diversification of oil imports and holding of equity oil abroad.²³ Three issues have been singled out here: securing the supplies, building up the stocks and seeking the diversification of sources.

In addition, construction of submarine pipelines for the transportation of natural gas to India from the Gulf had been proposed. These plans revolved around three major projects with Oman, Qatar and Iran. In June 1993, the Indian and Omani governments agreed to the preparation of a feasibility report on the construction of a 1,450-km submarine pipeline from Oman to Gujarat, on India's West coast. An ambitious project valued at US\$5 billion, the sub-sea pipeline would have been sunk to the depths of upto 3.5-km, which is deeper than any other wide diameter gas pipeline in the world. The scheme faced huge technical challenges and doubts had also arisen due to the insufficient confirmation of gas reserves in Oman. The second project involved a pipeline from Qatar possibly linking up with the Indo-Omani pipeline. In late 2002, the Ministry of Petroleum and Natural Gas moved a Cabinet note for formally closing the Indo-Oman pipeline project, after having spent eight years of study and Rs 330 crores.²⁴

The prospects of the Indo-Qatar pipeline are dim. Petronet LNG Limited (PLL) has, in the meanwhile, signed a long-term LNG supply contract with RasGas

of Qatar for import of 5 mt at Dahej and 2.5 mt at Cochin.²⁵ India will import the gas from Qatar at an aggregate fixed annual price of US\$ 800 million until December 2008, which according to analysts, is at least 25 per cent cheaper than the existing LNG prices in Asia. Under the contract involving Qatar's RasGas and India's PLL, the Dahej terminal will annually receive five million tonnes of gas for 25 years. The gas would be converted to liquid and transported in specially built ships to Dahej, where it would be reconverted to the gaseous form. The first such LNG container arrived in January 2004.²⁶

The third project involving a 42-inch pipeline stretching 2,000 kilometres from Iran to India has become a bone of contention between India and Pakistan. The 56 inch-diameter pipeline would cover 850-km in Iran, 700-km in Pakistan and 1120-km in India with initial estimate of US\$ 700million accruing to Pakistan as royalties.²⁷ Indian defence experts reject the option of an overland route through Pakistan, as it empowers Pakistan to cut off supplies to India whenever it wants. International guarantees can reduce, but not eliminate the chances of such a cut off. Pakistan favours an overland route, as this will assure its own gas supplies while giving it a stranglehold over supplies to India. India, on the other hand, favours the laying of the pipeline through the Pakistani Exclusive Economic Zone. Such a pipeline will need to be sunk 3,000 metres, and would be the first experiment in pipeline construction at such depth. Till recently, Pakistan declined to give its consent citing various techno-economic, defence and strategic reasons. It maintained that the project would cost one-and-a-half times more if laid under water, with an estimated cost of touching US\$ 10-12 billion. There are talks of involving stakeholders like the World Bank, the Asian Development Bank, international financial institutions and the private sector both in India and Pakistan.

In early 1997, India, Iran and Pakistan agreed in principle to officially pursue the pipeline project with urgency.²⁸ During Jaswant Singh's visit to Iran in July 2000, a Joint Working Committee was set up to examine the security, political, technical and economic issues related to the transportation of the Iranian gas. In November, the Iranian Deputy Foreign Minister, S.M.H. Adeli visited India with a fresh proposal. According to it, India and Iran would consider the project 'bilateral', without any contractual obligation with Pakistan or rely on its security assurances. The security responsibility would lie with the international consortium that would run the project and manage the risks of disruption involved.²⁹

After the change of government in India in mid-2004, Foreign Minister K Natwar Singh expressed India's willingness to consider the overland route, if Pakistan was willing to give the required guarantees. Interestingly, his statement

did not reiterate the Indian position that Pakistan should confer it the status of Most Favoured Nation. The Pakistani response, predictably, was prompt and positive.³⁰

India has also mooted a proposal to build a Russia-China-India 'Energy Highway' network that would connect Russia, Turkmenistan, Uzbekistan, Kazakhstan and India via the Western provinces of China. In China, the pipelines would run along a railroad before entering Ladakh or Himachal Pradesh and down to New Delhi.³¹ The highway is expected to be 890 miles long and cost US\$ 2 billion.³² The prospects for the project are not too bright, as China is unlikely to grant India a pipeline corridor across the Line of Control for security reasons. The Indian proposal was seen as a counter-move to the TAGP. In February 2003, therefore, the three signatories invited India to join them and sent the relevant documents of the project for its consideration. Indian participation was sought to make it more viable but New Delhi's response is not yet in the public domain. There is yet another proposal to construct a gas pipeline from Thailand to India under the aegis of the Bangladesh, India, Myanmar, Sri Lanka, Thailand Economic Cooperation (BIMST-EC).

India has gradually emerged as a global player in the energy sector. An annual investment of about US\$ 1 billion is planned for acquiring oil equity abroad. Indian companies are investing in Sudan, Russia, Libya, Vietnam, Iran, Syria, Lebanon, Kazakhstan, Indonesia, Sudan, Iraq, Myanmar and Sri Lanka. Already, an investment of roughly US\$ 3 billion has been made in Russia, Sudan and Vietnam for acquisition of properties.³³ India has also acquired contracts from other energy giants like Exxon-Mobil, BP Amoco, Korea Gas Corporation, Statoil of Norway, Sodeco of Japan, RNAstra and SMNG of Russia, and Petro Vietnam. In a bold decision, the Oil and Natural Gas Corporation Videsh Limited (OVL), the overseas arm of the ONGC invested US\$ 750 million to acquire 25 per cent equity in Sudan's Greater Nile Oil Project.³⁴ Our investment in Sudan is the largest single energy investment. Three shiploads from Sudan have already arrived; the fourth has been reportedly sold to China on the high seas.³⁵ Another deal to acquire a 20 per cent share in the Hosseinian-Kush oil field in Iran that produces 300,000 bpd is likely to be finalised by September.³⁶

India's Policy Options

From India's perspective, the first priority is to understand the gravity of the global energy situation and its likely magnitude and immediacy. The following issues are of critical significance and deserve to be debated in all their nuances. First, we

have opted for an energy mix in which oil and gas constitute half our commercial energy consumption. Is it possible to mitigate the consequences of such a choice? It is suggested that the remedy may still be possible. It is imperative that other sectors of the energy spectrum such as coal, hydropower, nuclear and other non-conventional sources of energy should be encouraged so as to leave the use of petroleum products to specific sectors like transport, fertiliser and petrochemicals. Also, energy efficiency levels should be increased and other sectors of the infrastructure too should be made more efficient.³⁷

Second, an element of welfarism is built into our political economy, which prohibits an unrestrained role for the market. It is asserted that if populist politics and corrupt practices continue, no amount of investment in external security can ensure energy security internally.³⁸ The assertion, though, begs a larger question: energy security for whom?

Third, we have taken a few decisive steps towards opening up domestic oil blocks to Indian private companies and foreign companies and at the same time, have been investing in foreign oil fields. It is explained that the logic for this policy lies in the processes of globalisation. Instead of avoiding or rejecting the phenomenon or seeking to adapt ourselves to its diktat, it may still be possible to adopt globalisation to suit our needs and ensure our long-term energy security.

Fourth, maintaining strategic petroleum reserves (SPR) will help the country tide over a short-term crisis. India currently maintains 45 days of petro-products reserves in storage terminals and pipelines and 15 days of crude oil reserves.³⁹ A high-powered committee was appointed a few years back to look into the matter. It recommended in its report *Hydrocarbon Perspectives 2010: Meeting the Challenges* that the reserves should be managed by a common agency in view of economies of scale and operational flexibility; that the reserves should be developed only for products of mass consumption like motor spirit, HSD, kerosene and LPG; and that they be adequate for 90 days.⁴⁰ The former Minister for Petroleum and Natural Gas, Ram Naik, had expressed his willingness to consider the proposal. In view of exorbitant costs involved, the implementation seems to have fallen short of the desired result. Preliminary feasibility studies indicate that 15-days worth of SPR stored in underground caverns will cost Rs 1,225 crores in capital expenditure and Rs 600 crores for annual maintenance. In order to ensure a modicum of security against supply disruptions, India would need a 40-day reserve, which could mean an up-front cost of about Rs 4,500 crores.⁴¹ In addition, transport and storage equipment would cost US\$ 6.3 billion.⁴²

Fifth, India's efforts to diversify and reduce import dependence on West Asia peaked in 1999, when it accounted for a little less than 50 per cent. Without giving up diversification and self-reliance as options, we need to accept the fact that West Asia would remain the source of an overwhelming proportion of India's oil and gas imports. Enhancement of domestic production and diversification of supply sources, in the ultimate analysis, will not make a radical difference in India's energy dependence on West Asia. An energy policy, in the circumstances, will have to proceed from this basic given and factor in supply disruptions as also steadily rising prices.

Lastly, India's energy diplomacy needs to be formulated and conducted within the overall context of its relations with West Asia. The relations go back to antiquity and involve a broad spectrum of commonalities and interactions: common history, culture and colonial experience; and movement of goods, people and ideas. Although West Asia does not constitute our immediate neighbourhood, we acknowledge the region as our strategic neighbourhood.

References/End Notes

- 1 <http://www.geocities.com/americanpresidencynet/1980.htm>
- 2 www.worldenergyoutlook.org/pubs/weio/English.pdf (Accessed July 6, 2004)
- 3 Ibid.
- 4 An optimistic estimate puts the proven reserves at 32.5bb, potential reserves at 218bb, production at 4mbd in 2010 and 6mbd in 2020, net exports at 2.3 and 3.6 in 2010 and 2020, respectively. Wilfred Kohl, *Turkestan-N@VM.EGE.EDU.TR* October 28, 1998, **98** 183.
- 5 Quoted in Tim Appenzeller, The End of the Cheap Oil. *National Geographic*. Washington, D.C. June 2004, **205** (6) 102.
- 6 Ibid.
- 7 Freund, M.T., et.al., Annex: Identifying Future Courses for Crises. In Patrick L. Clawson, *Ed.*, Energy and National Security in the 21st Century. 1995. National Defense University Press; Washington, D.C., pp.151-84.
- 8 Swindells, Steven, Saudi Arabia Guards Oil Sites to Secure Exports. Reuters. June 28, 1996. Quoted in Eric Watkins, The Unfolding US Policy in the Middle East. *International Affairs*. London. January 1997, **73** (1) 10-11.
- 9 The TAGP was formally signed into an agreement in Islamabad by the Heads of States of Afghanistan, Pakistan and Turkmenistan in May 2002.
- 10 www.cacianalyst.org/view-article.php?articleid=1130 (Accessed July 6, 2004)
- 11 *The Hindu*. December 1, 1996.

- 12 *The Hindu*. December 9, 1996.
- 13 Mahalingam, Sudha, Energy Vulnerability. *The Hindu*. March 2, 2004.
- 14 Kanai, Hirofumi and Gainer Kwan, Future Markets of LNG in Asia. In Michaela Crissell, *Ed.*, International Oil and Gas. *Financial Review*. 1997. p.108.
- 15 "External Policy and Oil Security". Vision 2025 at <http://pi.energy.gov/Indo-USconference/vision2025.pdf> (Accessed January 25, 2003)
- 16 Hydrocarbon Perspectives 2010: Meeting the Challenges. Report of the Study Group, New Delhi, 1995. pp.3-9.
- 17 Approach Paper to the Ninth Five Year Plan, 1997-2002. Planning Commission Reprint Document, Centre for Monitoring Indian Economy Private Ltd., Bombay, February 1997. p.53.
- 18 Chaturvedi, B. K., Domestic Resourcing of Energy, Gulf and Future of Global Energy. Paper presented at the Seminar on *India's Energy Security and the Gulf*. New Delhi, February 19-20, 2004. pp.24-6.
- 19 Singh, K.R., India and West Asia: Retrospect and Prospects. Paper presented at Seminar on *India's Foreign Policy: Challenges and Prospects*. Rajendra Prasad Academy, New Delhi, October 14-15, 1996. p.10
- 20 Dadwal, Shebonti Ray, India's Energy Situation: Crisis in the Making. *Strategic Analysis*. June 1997, **21** (6) 374-5
- 21 *The Hindu*. June 16, 2004.
- 22 Approach Paper to the Ninth Five Year Plan, 1997-2002, no. 17, p.53
- 23 <http://planningcommission.nic.in/plans/planrel/appdraft.pdf> (Accessed April 30, 2004)
- 24 *The Hindu*. September 23, 2002.
- 25 Gas Authority of India. "Annual Report 2000-2001" at <http://gail.nic.in/fpubl.html> (Accessed July 4, 2004)
- 26 Aneja, Atul, First Shipment of Gas from Qatar Arriving This Week. *The Hindu*. January 26, 2004.
- 27 Rashid, Ahmad, Taliban: Militant Islam, Oil and Fundamentalism in Central Asia. 2000. Yale University Press; New Haven. pp.168-9
- 28 *Observer of Business and Politics*. New Delhi. February 13, 1997.
- 29 Raja Mohan, C., Positive Outlook for Indo-Iranian Pipeline. *The Hindu*. November 24, 2000.
- 30 Reddy, B. Muralidhar, Pakistan Ready to Give Guarantees for Gas Pipelines. *The Hindu*. June 8, 2004.
- 31 Taneja, Narendra, The Fire Down Below. *Outlook*. October 23, 2001. See also Aftab Kazi, "Is the Proposed Russia-China-India Pipeline Feasible?" at www.cacianalyst.org/view-article.php?articleid=1091 (Accessed July 7, 2004)

- 32 Alibekov, Ibragim, "India Set to Expand Presence in Central Asia" December 4, 2003 at www.muslimuzbekistan.com/eng/ennews/2003/12/ennews04/22003.html (Accessed July 1, 2004)
- 33 Chaturvedi, B.K., no.18, p.16.
- 34 The equity was earlier held by the Canadian Talesman Energy Inc., which withdrew after a sustained campaign from human rights groups to leave Sudan on grounds of human rights violations in the country.
- 35 According to Indian Government officials.
- 36 *The Hindu*. June 29, 2004.
- 37 Dadwal, Shebonti Ray, Rethinking Energy Security in India. n.d. Knowledge World; New Delhi. pp.137-8.
- 38 Baru, Sanjaya, Some Issues for Indian Policy. In Jasjit Singh, *Ed.*, Oil and Gas in India's Security. 2001. Knowledge World; New Delhi. p.95.
- 39 Parthasarthy, G., and Nimmi Kurian, Enhancing India's Energy Security Options. *Pacific and Asian Journal of Energy*. June 2002, **12** (1) 75.
- 40 Hydrocarbon Perspectives 2010: Meeting the Challenges, no. 16, pp.1-9.
- 41 Mahalingam, Sudha, no.13.
- 42 Does India Need Strategic Oil Reserves? *Business Standard*. November 13, 2002.

Professor Gulshan Dietl is at the School of International Studies, Jawaharlal Nehru University. She has served as the Director, Gulf Studies Programme, and the Chairperson, Centre for West Asian and African Studies at her University. Her publications include: *The Dulles Era: America Enters West Asia* (1985), and *Through Two Wars and Beyond: A Study of the Gulf Cooperation Council* (1991).