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EDITORIAL

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Editorial Policy

The Security and Terrorism Research Bulletin is intended to contribute to a constructive discussion of critical security issues facing the Gulf Region. Articles, therefore, do not represent the opinion of the Gulf Research Center but that of the individual author. The Security and Terrorism Research Bulletin is published four times a year in both Arabic and English and can be read on the GRC website at www.grc.ae

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Trans-Arabia Oil Pipelines

GRC Project

In April 2007, the Gulf Research Center, encouraged by the increasing interest of the GCC oil-producing states in energy security, and the growing global concern about the issue, decided to prepare a preliminary study on the long-standing idea of building multi-states oil pipelines that would bypass the world's most vulnerable energy choke point, the Strait of Hormuz. In the past five decades, the Strait of Hormuz has been a lifeline- and at times, an 'Achilles' heel, - for the national, regional and global economies. It forms a strategic link between the rich oil fields of the Gulf region and the waters of the Arabian Sea and the Indian Ocean.

The Strait of Hormuz is 37 km wide; ship navigation is limited to two 3 km-wide channels, each used exclusively for inbound or outbound traffic. On an average, 20-30 tankers cross the Strait every day. At peak time, tankers cross the Strait at a rate of one every 6 minutes transporting around 25 percent of the world's oil requirement each day. About 88 percent of all the petroleum exported from the Gulf transits through the Strait, bound for Asia, West Europe and the United States. Altogether, tankers carry some 16-17 million barrels of oil through the narrow channel every day, according to the International Energy Agency (IEA).

Project Rationale

The GCC states' revived interest in the Trans-Arabia oil pipeline project has a strategic dimension and does not come as a surprise. The project has been debated, shelved and revived several times over the past two decades, but never been rejected. The present interest has been encouraged by a number of factors that have contributed to a serious review of the project.

First, the current instability in the security and political environment in the Gulf region has resulted in a rising threat perception among oil-producing Arab Gulf states. These states now perceive a growing threat to their ability and freedom to export oil to the world market. This is in addition

to the feeling of threat caused by the behavior of some regional states and the activities of non-state players such as terrorist and criminal groups.

During the past 10 years the GCC states have decisively moved in the direction of economic and strategic integration.

Second, the current trend among the major oil producers in the region, such as Saudi Arabia and UAE, is to increase their oil production by a few millions barrels during the coming years. The plan to expand oil production from the region will necessitate steps to increase the security of oil transportation. It would also mean giving serious consideration to other oil exporting alternatives, in addition to the current means of export which relies solely on oil tankers passing through the Strait of Hormuz.

Third, the comparatively high oil prices during the past year, and the expectations that oil prices will, for the foreseeable future, remain high and could even rise further has also contributed to the reconsideration of the Trans-Arabia oil pipeline project. The high rate of demand for oil from the region, sustained high oil prices, with the possibility of rising rate of production has enhanced the financial confidence and the ability of the oil states of the region to meet the relatively high cost of pipeline construction.

Fourth, during the past 10 years the GCC states have decisively moved in the direction of economic and strategic integration. Major common projects are underway or have been already implemented. Free trade, removal of all restrictions on capital investment and human movement, customs union, and GCC common currency plan, joint nuclear civilian program, are all issues being considered. Besides the GCC states have already implemented, agreed on, or considered a number of practical common projects. These include the multi-state gas pipeline (Qatar, UAE,

TRANS - ARABIA OIL PIPELINES



1 Saudi Arabia - UAE
(Fujairah ports)

2 Saudi Arabia - UAE -
Oman (Oman ports)

3 Saudi Arabia - UAE -
Yemen (Yemen ports)

4 Saudi Arabia - Oman
(Oman ports)

5 Saudi Arabia - Yemen
(Yemen ports)

6 Iraq - Kuwait -
Saudi Arabia - UAE
(Proposed extension)

== Proposed extension Retired

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Oman) which has been constructed, and the Trans-Arabia Railway project which is under consideration.

Fifth, during the past decades, the project of building a Trans-Arabia oil pipeline was not attainable or manageable due to the fact that international borders between the states of the Arabian Peninsula were not clearly demarcated or legally settled. However, during the last few years, most, if not all, outstanding border disputes have been settled, and border agreements have been signed and ratified. The process of demarcation and delimitation of the borders has been finalized. This development will greatly facilitate the implementation of the project as the pipelines cross the boundaries of a number of regional Gulf states.

Possible Routes

There are basically six possible routes envisaged for the project, depending on the number of states which will be interested in the project:

1. Saudi Arabia-UAE (Fujairah's port on the Gulf of Oman)

Work will commence shortly in the construction of the "UAE oil pipeline" transporting oil from Abu Dhabi oil fields (Habshan oil field and others) to Fujairah oil export facilities on the Arabian Sea. The Pipeline length is estimated to be 350 km, encompass diameter 48 inch, and transport 1.5 m/b a day for export.

2. Saudi Arabia-UAE-Oman (Oman ports)

3. Saudi Arabia-Oman (Oman ports)

4. Saudi Arabia-UAE-Yemen (Yemen ports)

5. Saudi Arabia-Yemen (Yemen ports)

6. Trans-Gulf pipeline (Kuwait- Saudi Arabia-UAE-Oman-Yemen)

The pipeline's transportation capacity could be up to 5 m/b a day and it could transport oil from Kuwait – with a possible connection to Iraqi oil fields – to Saudi Arabia, UAE (with a possible outlet at ports in Fujairah), and Oman or Yemen.

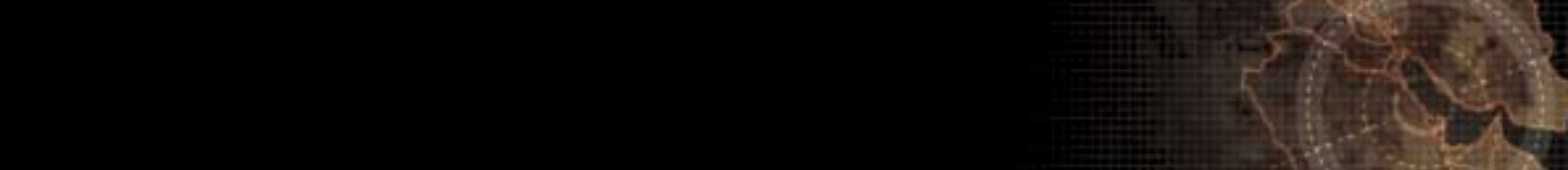
Challenges to the Security of Oil Export from Gulf States

1. State's Threat: The case of Iran's declared and veiled threats to the freedom of navigation in the Gulf waters

Since the beginning of the controversy over the Iran nuclear file in early 2003 and the defiant Iranian attitude toward the UN Security Council, resolutions demanding the complete abandonment of Iran's uranium enrichment activities have had a negative impact on security and stability in the Gulf region. As part of a growing confrontation, the war of words between US and Iranian officials has escalated. References to the possibility of US military action against Iran, if diplomatic efforts prove unproductive, have prompted a strong Iranian reaction. The Iranian military and political leadership frequently assert Iran's capability and determination to respond strongly to any US or other military action which targets the state or its nuclear installations. The main part of the Iranian 'strategy of revenge' seems to focus on Iran's readiness, determination, and capability to interfere with the freedom of navigation through the waters of the Gulf. In particular, the Iranian leadership has tried to emphasize the ability of the state's armed forces to effectively disrupt or halt oil export from the Gulf region. Plain or veiled threats of closing the Strait of Hormuz and preventing oil export from the region have been repeated a few times by the state's leadership. As examples of such an intimidating approach we may refer to a few statements made over the years asserting Iran's determination to interfere with the flow of oil from the region.

In August 1996, the commander of Iran's Revolutionary Guards, Maj. Gen. Mohsen Rezai, warned the United States not to make any aggressive moves toward Iran. "The world's energy is in the Persian Gulf," he told Basij forces gathered for war games. "If the Americans commit the slightest mistake there, Basij forces will set this region on fire and this will result in America's certain death." (Reuters, August 17, 1996 and Kayhan, August 17, 1996 "Iran to set Gulf on fire if U.S. hits")

In June 2004, Iran's supreme leader, Ayatollah Ali Khamenei, warned that energy shipments from the Gulf region would be disrupted should Iran come under attack from the US, insisting that Tehran will not give up its right to peacefully



produce nuclear fuel. “If you make any mistake, definitely shipment of energy from this region will be seriously jeopardized. You have to know this,” Khamenei said in a speech broadcast live on state-run radio. Khamenei also warned that, should a disruption occur, the US and its allies would not be able to provide security to all the oil shipments that cross the strategic Strait of Hormuz – through which much of the world’s oil supply must pass, within close range of Iran. “You will never be able to protect energy supply in this region. You will not be able to do it,” he said, addressing the West. (Associated Press, June 4, 2006)

The repeated Iranian threat to disrupt or halt oil export from the Gulf region, has been taken seriously by the oil-producing states in the Gulf.

A year later, in June 2007, the deputy head of Iran’s volunteer Basij militia, reiterated the supreme leader’s warning when he stated that pressuring Iran could result in the disruption of international oil flows through the strategic Gulf waterway. In a statement given to the semi-official Fars news agency, Commander Majid Mirahmadi stated, “We control the Strait of Hormuz. It is the only way for the flow of 40 percent of the world’s energy.” (Reuters, January 8, 2007)

The repeated Iranian threat to disrupt or halt oil export from the Gulf region, has been taken seriously by the oil-producing states in the Gulf and has resulted in raising the level of threat perceptions among the Gulf States. During the Iraq-Iran war (1980-1988) the regional states seriously suffered from the Iranian determination and relentless effort to cause maximum disruption to oil export from the region. For the duration of the war, Iranian armed forces and the Iranian Revolutionary Guard forces attempted to disrupt oil export from the Gulf states by conducting numerous military attacks against oil tankers, oil export platforms and ports. Oil tankers were subject to naval, air and missile attacks, ports and navigation channels were mined or blockaded, and oil export installations were sabotaged. The Iranian strategy to disrupt oil export from the region achieved limited success. Nevertheless the Gulf states’ counter-measures aimed at frustrating or limiting the success of the Iranian strategy was costly in financial, political, and psychological terms, and no Gulf state wishes to go through such a negative and worrying experience again.

Indeed the high frequency of attacks on shipping in the Gulf waters persuaded the UN Security Council to adopt a special resolution. On May 21, 1984 the UN representatives of the six GCC states submitted an official complaint to the Security Council against Iranian attacks on their commercial ships going to and from the Gulf ports and requested the Council to act immediately to prevent these attacks. On June 1, 1984 the Security Council adopted resolution no 552 asserting that “these attacks constitute a threat to the safety and stability of the area and have serious implications for international peace and security,” underlining the importance of the Gulf region and “its vital role to the stability of the world economy.”

2. Non-State Actors’ Threat: Threats from terrorist acts

Terrorism and, less significantly, piracy constitute another threat to oil export through the Gulf and the Strait of Hormuz. The phenomenon of terrorism is not new to the Gulf region. However, it is since September 11, 2001 and following the announcement of al-Qaeda leader Osama bin Laden and his deputy Al-Zawahiri in December 2004 and 2005 that al-Qaeda will attack oil infrastructure that GCC states are concerned with the question of energy security. Given that oil installations in Iraq and oil facilities in Saudi Arabia and Yemen have been attacked already, one cannot rule out the possibility of major terrorist attacks targeting oil tankers and shipping in the Gulf and in the Strait of Hormuz.

Attacking important choke points on the sea is a possible tactic which could be used by terrorists.

Attacking important choke points on the sea is a possible tactic which could be used by terrorists. During the last few years, the region has witnessed two major successful maritime terrorist attacks – the November 2000 attack on the USS Cole that killed 19 US sailors and the attack in October 2002 on the French-owned oil supertanker, the Limburg, that killed three crew members. Both took place off the coast of Yemen, and both vessels were rammed by a suicide bomber in a small speedboat.

US sources have asserted that attacks to disrupt maritime movement through the Strait of Hormuz and in the Gulf

waters were on the list of terrorist groups, in particular the al-Qaeda organization. According to a White House document titled “10 Foiled al-Qaeda Plots” released in October 2005, during 2002-2003, al-Qaeda has tried, at least twice, to attack maritime targets within the Gulf waters. The US document listed two major plots that had been foiled:

- “The 2002 Arabian Gulf Shipping Plot: In late 2002 and 2003 the U.S. and a partner nation disrupted a plot by al-Qaeda operatives to attack ships in the Arabian Gulf.”
- “The 2002 Straits of Hormuz Plot: In 2002 the U.S. and partners disrupted a plot to attack ships transiting the Straits of Hormuz.” (USINFO website October 7, 2005 “White House Issues List of 10 Foiled al-Qaeda Plots”)

Economic and Political Advantages of the Trans Arabia Oil Pipeline

Besides terrorist threats, there are other threats facing oil pipelines. Besides accidental damage and the impact of natural factors, man-made threats to pipelines come in the form of vandalism and sabotage.

The diversification of oil export routes would strengthen the position of the GCC states, making them less vulnerable to security threats. The Trans-Arabia oil pipeline project can serve as a tool to strengthening the confidence of the oil market .

However, establishing an alternative oil export route would diversify the energy export of Gulf oil exporters such as Saudi Arabia, Kuwait, and the UAE, and end their reliance on one single route via the Strait of Hormuz. The diversification of oil export routes would strengthen the position of the GCC states, making them less vulnerable to security threats. Thus, the Trans-Arabia oil pipeline project can serve as a tool to strengthening the confidence of the oil market and lessen the sensitivity of the market to security and political developments.

It could also contribute to greater stability of the oil market as GCC states could guarantee consumers that, under most circumstances, Gulf oil producers can supply a certain quantity of oil. Such a security guarantee can contribute to the overall stabilization of the oil market.

Transit countries such as Yemen or Oman could gain financial benefits from transit fees. Revenues from such fees could amount to millions and benefit the transit states’ economies and promote the development of oil infrastructure and facilities. Another benefit could come in the form of oil supply to transit countries. Subject to agreements, transit states would receive oil at a fixed subsidized price or below the market value.

The transnational pipeline project will be a long-term financial and strategic commitment for all concerned states. The GCC states would have to overcome their individual threat perceptions and develop mechanisms for cooperation.

The transnational pipeline project will be a long-term financial and strategic commitment for all concerned states. It could serve as a catalyst for the development of mechanisms of cooperation and trust building among the regional states who share the benefits of the project. The GCC states would have to overcome their individual threat perceptions and develop mechanisms for cooperation. This has been one of the biggest challenges for inter-state relations in the region. During the 80s and 90s, GCC relations were dominated by inter-state rivalry and hegemonic ambitions. Now the states face common security challenges posed by the threat of terrorism, political and security developments in Iraq, and Iran’s nuclear ambitions. These challenges require close and sustainable cooperation among the GCC states.

Cost and Routes

The estimated financial cost of the Trans-Arabia Oil Pipeline project will be between 4-6 billion US Dollars shared by the concerned states. But the actual cost will be influenced by a number of key technical details and specifications, among them:

- The route and the planned interconnectors;
- The capacity/diameter of the pipeline(s) and the pumping stations;
- The construction of sub or over ground, or sub-sea pipeline;
- The construction of oil port(s) or export platforms;
- The desired safety and security infrastructure.



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The Economics and Politics of the “Dire Straits”

Giacomo Luciani

We speak all the time about globalization, but seldom focus on one key development that is supporting the trend and making it possible. This is the very significant development in maritime technology that has brought about a revolution in maritime transport and a huge lowering of the cost of transportation of goods over long as well as short distances. The Gulf countries feel the impact of these developments, as the home of major global ports operators and, increasingly, of rapidly growing shipping lines. With the spread of fast ferries – ships that normally operate at 25-30 knots of speed – maritime transport, especially of the Ro-Ro kind, in which whole lorries or trailers board the ship, without loading/unloading their cargo, is frequently faster than overland routes, especially in enclosed seas, such as the Mediterranean, the Red Sea or the Gulf itself.

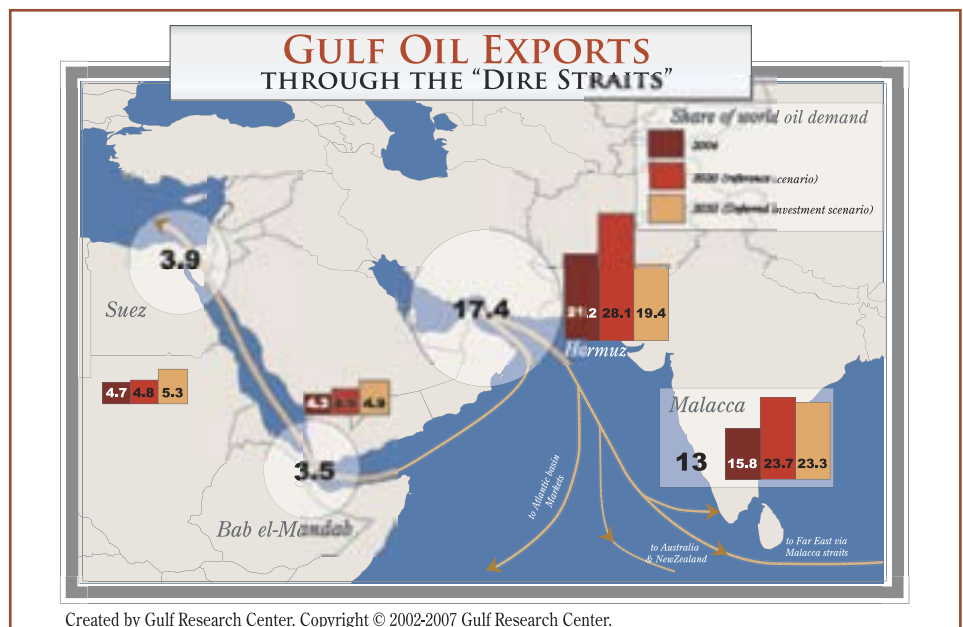
There are at least two important implications of this important development. The first is that the principle of freedom of navigation in the high seas – the key principle of international maritime law – is today universally supported by all countries. This principle has not been challenged in many years, but in the past it was primarily of interest to the main trading nations and the superpowers; today it is of crucial importance for almost all countries in this world, except maybe those that are landlocked. The second is that the sea lanes are becoming increasingly crowded, with bigger and faster ships crossing in different directions – pointing to the need for prudential policing of maritime traffic. The problem is that this requirement does not square easily with the principle of absolute freedom of navigation in the high seas and international straits.

International trade in crude oil and

petroleum products is a very significant share of global merchandise trade. The fact that oil is a liquid and can easily and cheaply be transported in tanker ships is one of the essential qualities that have supported the “success” of oil as a primary source of energy. Other fossil fuels – coal and gas – are much more difficult to transport, for different reasons. Gas especially can only be transported either by pipeline or, following liquefaction, as LNG in specially designed ships where it is kept at a very low temperature.

Oil tankers are therefore an important component of international maritime traffic, and also a component which, if appropriate policy measures were taken, could more easily be substituted by other transport solutions.

These considerations justify the special attention that is devoted to the issue of so-called choke points for international crude oil maritime shipments. These choke points – or, as the International Energy Agency has called them, the “dire straits” – witness the passage of a significant share of globally traded crude oil. However, it is important to



keep in mind that oil tankers certainly are not the only class of ships transiting through these straits: in terms of numbers, general cargo ships certainly are more numerous. If we focus attention on crude oil, it is primarily because it would be relatively easy to find alternatives for the shipment of crude oil, more so than for other merchandise.

There is no logical need to assume that violence would necessarily target oil tankers, nor that the elimination of crude oil from the Strait would solve the problem – free passage through the Strait would remain essential for all countries in the region and of primary interest for countries outside the region as well.

The concentration of oil reserves and production in Gulf riparian countries inevitably inflates the volume of internationally traded oil which originates in the Gulf, and must therefore transit through the Strait of Hormuz. It should however be recalled that out of the five major Gulf oil exporters, three (Iran, Saudi Arabia and the UAE) have ports outside of the Gulf: Iran and the UAE on the Indian Ocean, outside of Hormuz; and Saudi Arabia on the Red Sea. Indeed, Saudi Arabia has a pipeline (known as the Petroline) with a capacity of 5 m b/d running from the Eastern province, where the oil is found, to the Red Sea port of Yanbu', and has been exporting crude oil and products from there for more than 20 years. ¹

Iraq does not have a maritime outlet outside of the Gulf, and indeed even its outlet to the Gulf is insufficient and cannot accommodate very large crude carriers. For this reason, it has developed over the years several alternatives, notably:

- A pipeline running from the fields in Northern Iraq across Syria to the Mediterranean port of Banias
- A pipeline running from the fields in Northern Iraq across Turkey to the Mediterranean port of Ceyhan
- A pipeline from the fields in Southern Iraq across Saudi Arabia to the Red Sea port of Yanbu' (known as IPSA).

The operations of all of the above have been disrupted by political and/or military interference, and none is operating normally; a segment of the pipeline across Saudi Arabia has now been converted to carry natural gas. Nevertheless, these pipelines exist and could be restored and/or expanded.

In the end, Kuwait is the only Gulf country which at present has absolutely no alternative but to ship oil through Hormuz – yet its position is not that much different from Iraq's, and it too could find an alternative (most likely, to the Red Sea across Saudi Arabia). The fact that the world will increasingly rely on Gulf producers to satisfy its thirst for oil does not therefore necessarily imply that shipments through Hormuz will be rapidly increasing.

In the case of Hormuz, oil constitutes the most important merchandise transiting the strait (but oil tankers are not necessarily a majority of the ships passing). When we speak of Hormuz as a choke point, we generally have in mind the possibility that the Strait might be closed through the use of violence by one of the riparian states (Iran and Oman) or by non governmental actors. There is no logical need to assume that violence would necessarily target oil tankers, nor that the elimination of crude oil from the Strait would solve the problem – free passage through the Strait would remain essential for all countries in the region and of primary interest for countries outside the region as well.

This perspective is even more necessary when we look at some of the other choke points – the Malacca Strait first and foremost. Essentially all traffic between the Far East and points west of Singapore passes through Malacca – according to the International Maritime Organization, at least 50,000 ships sail through this strait every year – much, much more than just tankers. Far from being a reason for comfort, this consideration should all the more encourage finding a solution that may take tankers out of the Strait – as in the end they are the one component of traffic that is most easily substituted.

A further important consideration is that we should not confine our attention to straits. In the age of automatic pilots interfaced with GPS, international maritime traffic is highly concentrated in relatively narrow sea lanes, even where there is a lot of water around and ships might follow somewhat different routes. Whenever major international sea lanes pass in the proximity of land (e.g. at the Cape of Good Hope, the southern tip of Africa) the possibility exists for land based forces to target shipping. The difference between straits and other sea lanes' critical passages may be that the former may theoretically be "closed", effectively preventing all shipping, due to the absence of alternatives. This, however, is very

much an extreme hypothesis, as only state actors might be able to project the amount of military force required to “close” a strait, immediately creating a *casus belli*. Alternatively, non-government actors could strike occasional ships – tankers or other – in a strait passage or at other points where sea lanes come close to shore – but would not be able to stop transit altogether.²

This needs to be said to put the issue of transit of crude oil and oil products through straits in some perspective. Why then is this problem so difficult to address? Because, notwithstanding the fact that crude oil and oil products are the merchandise that is easiest to divert to other modes of transport, nevertheless doing so imposes an additional cost which the market normally is not willing to underwrite, considering that the alternative – passage through the strait on board ship – is for free.

International maritime law not only imposes that freedom of passage cannot be impeded, but also requires that passage be at no cost. In the extreme case of the Turkish Straits (which are considered international waterways as per the Montreux Convention of 1936, notwithstanding the fact that they are so narrow and densely inhabited, with Turkey controlling both shores) not even the use of a pilot can be imposed.

Clearly such rules were conceived of in a now distant past, in which the intensity of traffic was incomparably less, and the danger of accidents not a significant consideration. International law gave absolute priority to the interests of maritime nations requesting freedom of passage or, as in the case of the Turkish straits, to the interest of countries that would otherwise be almost landlocked, such as was the case of the Soviet Union in the winter months, when the country’s Northern ports were closed by ice.

In cases in which major waterways are not international – such as the Suez and Panama canals – passage is regulated and must be paid for, thus laying the commercial basis for the establishment of alternatives and competition. In the case of Suez, the largest volume of crude oil reaches the Mediterranean from the Red Sea through the Sumed pipeline. Large tankers whose draft would exceed the capacity of the canal offload part of their cargo at the Red Sea end of the pipeline only to load again at the Mediterranean end; or smaller tankers simply offload their cargo and do not pass

through the canal, hence saving on the transit fee; and different ships load again at the other end.

This case clearly demonstrates that it is not difficult to establish alternatives to congested navigation channels, provided that the cost of congestion is properly assessed and charged to the user. In the case of Suez, we have both a physical limitation to the draft of vessels that can transit, and the fact that transiting vessels are charged a fee. In the case of the Turkish straits neither limitation applies. This explains why discussions about several potential pipeline schemes to bypass the straits have been going on for longer than a decade, but none has yet taken off. In more recent years, the Turkish government has imposed certain limitations on the passage of tankers, justified by the need to avoid collision, which have resulted sometimes in long waiting times at the entrance of the straits. As waiting times reached longer than 10 days on several occasions, the cost of renting tankers to keep them waiting and the longer travel times began to have an impact and at least three of the competing by-pass projects have been moving forward. However, it is easy to see that if even just one went ahead, congestion in the straits would be reduced, the cost of transiting through the straits would again be reduced, and the pipeline would appear as the uncompetitive alternative.

In the case of Hormuz, the commercial viability of establishing a pipeline alternative is even more dubious, because the strait is considerably wider than the Turkish straits and congestion is not comparable. Indeed, while for the Turkish straits the main threat is that of an accident (collision, grounding), in the case of Hormuz the only significant threat is that of the potential use of force on the part of one of the riparian states or some non-state actor – a threat whose probability in

The Montreux Convention

In 1936, the former signatories to the Treaty of Lausanne together with Yugoslavia and Australia met at Montreux, Switzerland to abolish the International Straits Commission and return the Straits zone (the Dardanelles, the Sea of Marmora, and Bosphorus) to Turkish military control. The Convention stipulates that merchant shipping of any flag and with any cargo has freedom of transit in the straits during peacetime and during wartime whenever Turkey is not a belligerent. Turkey may, however, require merchant ships to stop at a station upon entering the straits for the purposes of sanitary and health control.

commercial terms remains very low.

The cost of establishing a by-pass therefore easily appears prohibitive if we consider a pipeline whose main or exclusive use is to take crude oil from one side to the opposite side of a strait. In this case, a transit fee will need to be imposed to pay for the pipeline, and in addition the cost of downloading and uploading again must be considered.

However, the economics of by-passing a strait looks entirely different if the pipeline originates directly from the field or serves a refinery at the receiving end. In this case, the transshipment cost is eliminated and the pipeline will be considered either as a component of the cost of upstream development or a component of the cost of the refinery.

Oil fields are never exactly close to a loading terminal, and it is well understood and accepted that the fields will need to be connected to a loading terminal by way of one, or more pipelines. While in order to minimize cost it may be preferable to look at the closest possible loading terminal, other considerations may play a role and suggest rather longer pipelines.

Historically, the first option for the export of crude oil from Saudi Arabia was not from the Gulf, but by way of a pipeline, the Tapline, which reached the Mediterranean shore at Haifa and Sidon (see text box and map).

Following the creation of Israel in 1948, the Haifa terminal ceased to be used; following the occupation of the Golan Heights (through which the pipeline passes) and the civil war in Lebanon the Sidon terminal too was abandoned. Today, though the Tapline cannot immediately be returned to active duty, it is there and demonstrates that “by-passes” are very well possible if justified by upstream development and market considerations.

As indicated above, we have other examples of pipelines connecting fields to relatively remote loading terminals, in both Saudi Arabia and Iraq. But in fact, it is quite common to have fields that are distant from the shore connected to it by pipelines that are several hundred kilometres long. The cost of these pipelines is considered part of the cost of the upstream development, and a transit fee is not levied: the cost of transport is included in the price paid for the oil.

Sumed Pipeline

Location: Egypt; connects the Red Sea and Gulf of Suez with the Mediterranean Sea



Oil Flows (2004E): 3.8 million bbl/d northbound, and 0.4 million bbl/d southbound. Northbound shipments consisted of 2.5 million bbl/d of crude oil via the Sumed Pipeline (nearly all of which came from Saudi Arabia), 0.8 million bbl/d of crude oil via the Suez Canal, and 0.5 million bbl/d of petroleum products via the Suez Canal. Southbound oil flows through the Suez Canal totaled 0.3 million bbl/d of petroleum products, and 0.1 million bbl/d of crude oil.

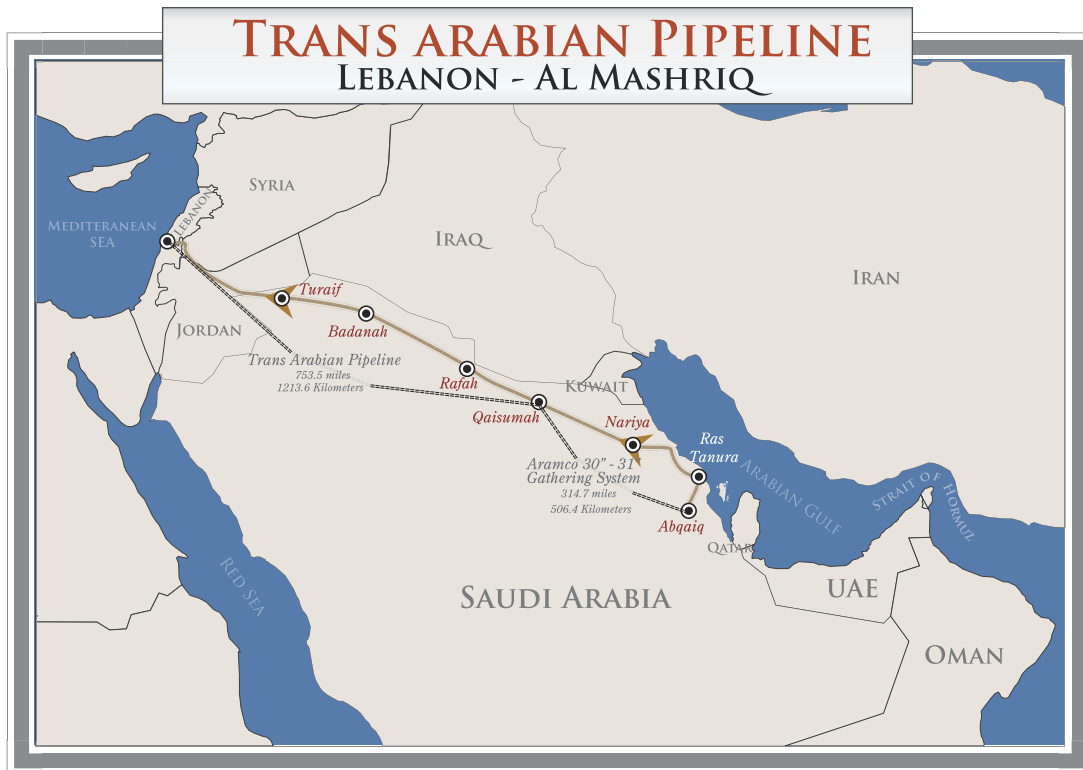
Destination of Sumed Oil Exports: Predominantly Europe; also United States.

Concerns/Background: Closure of the Suez Canal and/or Sumed Pipeline would divert tankers around the southern tip of Africa (the Cape of Good Hope), adding greatly to transit time and effectively tying up tanker capacity.

In 2004, about 3,300 oil tankers passed through the Suez Canal, an almost 20 percent increase in tanker traffic from 2003 levels, when 2,800 tankers passed through the canal. Total oil shipments (both northbound and southbound) increased from 1.4 to 1.7 million bbl/d between 2003 and 2004. Oil historically has represented about 25 percent of Suez Canal revenues. Currently, the Suez Canal can accommodate Suezmax class tankers with drafts of up to 62 feet and 200,000-dead-weight-ton maximum cargos. In 2001, the Suez Canal Authority (SCA) launched a 5-year program to reduce tanker transit times (from 14 hours to 11 hours) through the Canal. The SCA also is moving ahead with a 10-year project to widen and deepen the Canal, so that by 2010 it can accommodate Very-Large-Crude-Carrier (VLCC) and Ultra-Large-Crude-Carrier (ULCC) class tankers with oil cargos of up to 350,000 dead-weight-tons.

The Sumed pipeline, with a capacity of about 2.5 million bbl/d, links the Ain Sukhna terminal on the Gulf of Suez with Sidi Kerir on the Mediterranean. Sumed consists of two parallel 42-inch lines, and is owned by Arab Petroleum Pipeline Co., a joint venture of EGPC (50 percent), Saudi Aramco (15 percent), Abu Dhabi's ADNOC (15 percent), three Kuwaiti companies (15 percent total), and Qatar's QGPC (5 percent). The pipeline has been in operation since January 1977, and has served as an alternative to the Suez Canal to transport loads from tankers that are too large to pass fully laden through the canal.

Source: EIA/DOE



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Similarly, refineries are commonly linked to the source of crude oil by pipeline, either because they are located inland, far away from the crude oil receiving terminal, or because by being connected directly to a field they can receive oil without need for maritime transport at all. In all cases in the region, export pipelines also serve refineries at their terminal point. Locating a refinery at the terminal of a pipeline contributes to the economic justification of the same: as the cost of a pipeline increases less than in proportion to its capacity,³ the marginal cost of the extra capacity which is required to transport crude oil for export as crude, in addition to serving a refinery, is not very large.

We see this trend in the emerging strategy of Abu Dhabi to establish an export capacity out of Fujairah by connecting the Habshan oil field by pipeline to that emirate, while at the same time refining capacity there is being expanded (by IPIC in association with Conoco Phillips; and by Vitol, having acquired a previously mothballed refinery). The trend towards downstream integration and increasing the share of crude that is refined locally and exported as products rather than crude may therefore be expected to facilitate a

diversification of loading terminals and an increase of export capacity outside of Hormuz. Saudi Arabia alone is expected to install refining capacity adding up to a total of close to 1.5 m b/d on the Red Sea coast.

This is however not the only way in which the process of downstream integration will impact transit across the strait. Many refineries are being built on the shores of the Gulf, and their products will still need to be exported through Hormuz. However, it is clear that the nature of the shipping operation will change entirely.

In fact, it is likely that only some of the oil products from the refinery will be exported, while the rest will be utilised locally, either as feedstock for petrochemical plants, or – when it comes to the heavier end of the barrel – as fuel in furnaces for power generation, cement or other heat intensive industrial processes.

The volume of shipments will therefore be reduced at the same time as the value will be increased, justifying higher investment in the quality of logistics. Normally, to mention but one aspect, products are transported in much smaller vessels than crude oil. At this stage, it is difficult to predict

that product pipelines may be laid to connect refineries within the Gulf to loading terminals outside of it, but the threat of interruption of transit across the strait will look entirely different when a much larger share of the oil will be exported as products rather than crude.

The more oil and gas will be transformed in the region into finished products (not just fuels: petrochemicals, aluminium, cement, steel, etc) the more our perception of the threat of shipping through Hormuz will change, and the strait will look like most other crowded straits, like the English Channel or Gibraltar.

Another relevant recent trend is for major exporting and importing countries to agree to set up storage facilities close to the market. This may be in conjunction with the producing country's investment in refineries overseas or independently of it, in order to guarantee the smooth availability of supplies. These stocks are something half way between commercial and strategic stocks, and it is difficult to say to what extent they are motivated by operational or security concerns.

Stocks may be created close to the market but also in the proximity of key logistic points to serve a plurality of importing countries if the need were to arise. This means that potential by-pass pipelines may acquire a further dimension, being coupled with storage facilities at the inlet and outlet of the pipeline. The availability of storage at the two extremities of a pipeline is common practice dictated by operational requirements, but if a demand for storage exists even independently of the pipeline on commercial or strategic grounds, the financing of the logistic facility comprising both pipeline and storage is facilitated.

In other words, while projects envisaging a simple by-pass pipeline are difficult to justify on commercial grounds, when a pipeline is coupled with significant storage facilities and refining capacity the economics of the projects are transformed and financing facilitated.

This is confirmed by the recent signing of an agreement between Malaysian, Indonesian and Saudi companies to build the TRANSPEN oil pipeline across the Malay peninsula to avoid passage through the Strait of Malacca. The pipeline should allow diversion of some 20 percent of the oil that crosses the strait. According to AFP, plans call for an initial 122-centimeter pipeline with a throughput of 2 million barrels a day and storage capacity of 60 million barrels. It would be operational by 2011, the company said. After four to five years of operation, capacity would be upgraded to a maximum of 6 million barrels per day of throughput and 180 million barrels of storage. As can be readily seen, these are quite significant numbers. It appears that the pipeline does not yet have committed shippers, but a Saudi company, the Al-Banader International Group, is expected to help secure oil supplies from the Middle East and inject capital.

These are encouraging developments, but only time will tell whether they will come to fruition. Numerous governments have been concerned about congestion in straits or enclosed seas (the European Commission has taken a position in favour of substituting oil pipelines for tanker transport in the Mediterranean) but the system of incentives does not favor alternatives. It is possible that by-passes will be established anyhow, but eventually it will be only by properly accounting for the external cost of passage through straits that a solution based on market mechanisms will be found.

In the meantime, strategists will have a good time pointing to the dangers of the "dire straits" and arguing in favor of the deployment of more military forces. Somehow, it is always more difficult to find someone willing to pay for a pipe than for a cannon.

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1 The pipeline has been operating at much less than its rated maximum capacity because most customers of Saudi Aramco prefer to lift from Ras Tanura in the Gulf rather than from Yanbu'. Nevertheless, a study conducted for the Baker Institute of Public Policy (Ewell, Brito and Noer *An Alternative Pipeline Strategy in the Persian Gulf*, http://www.rice.edu/energy/publications/docs/TrendsInMiddleEast_AlternativePipelineStrategy.pdf) concluded that "the throughput of the existing pipeline system can be significantly increased with the use of drag reduction technology. As many as 11 MBD could be moved through the combined Petrolina-IPSA system for an investment of \$600 million. Alternately, a noticeable increase in Petrolina throughput can be obtained for as little as \$100 million. All options require an additional annual cost of roughly

\$50 million to hold DRA (drag reduction agent) inventory, or additional investment to build DRA production capacity in Saudi Arabia. The additional cost of moving oil during a crisis by this route is less than \$1 per barrel."

2 For the Malacca Strait, where action by the riparian countries to close off passage is not considered likely, it has been argued that a terrorist attack which sinks a ship where the sea lanes are at their narrowest point (3 km) and the sea is very shallow (a minimum of 25 metres) might effectively block one lane. One dare say that this is easier said than done.

3 Roughly speaking, cost is a function of the square, capacity a function of the cube of diameter.

Proposed Gulf-Asian Energy Pipelines Grid: Security Implications

Faryal Leghari

In the age of globalization, energy security is a multi-dimensional term that has several strategic implications, both political and economic. It is of vital importance to a state's security considerations which are dependent on its geostrategic positioning and other economic factors such as its requirements for energy. It is the one factor that has always been central to geopolitical interests.

Pakistan, because of its geostrategic position at juncture of South Asia, Central Asia and the Middle East, is poised to assume a significant role in shaping the energy map in the region.

Oil is a strategic resource for all modern economies both in times of peace and war. Consequently the measures taken to ensure that energy production or supply that is vital to producer and consumer states is not disrupted or threatened would be part of the energy security strategy of a state. Any energy related crisis in a tightly knit globalized world is bound to have a domino effect in markets and economies worldwide. In other words, collateral and stability are both prerequisites towards creating energy security in the region.

The growing demand for energy in China and India, two of Asia's emerging giant economic powers with a billion-plus population each, is the main factor driving the pursuit of an energy network spanning the region. This is also one of the factors that have lent greater urgency to the issue of energy security.

The focus of the study will be on the proposed pipeline projects that are to traverse Pakistan, both to serve the energy demand in the country and meet the demands of the energy-hungry economies of India and China. Pakistan, because of its geostrategic position at juncture of South Asia, Central Asia and the Middle East, is poised to assume a significant role in shaping the energy map in the region. Its neighbors China and India are the two emerging economic world

powers whose energy needs are multiplying rapidly as they seek to support their rapidly growing economies.

The energy demand in Pakistan is growing at a rapid rate. Pakistan also wants to ensure better trade and energy relations with its immediate neighbors as well as the Gulf States. If in the near future the various pipeline projects that will pass through Pakistan are implemented, the need to ensure the security of these investments will arise.

Typically energy projects are multi-billion dollar projects. Pipeline projects especially are deemed very costly and are open to multiple threats, both physical and political. The study will review the kinds of threats facing the energy supply and the transport of oil/gas and the response measures envisaged.

Energy Security

Energy security is commonly defined as 'the availability of energy at all times in various forms, in sufficient quantities, and at affordable prices.' The three sources of threats to energy security are economic, physical and environmental, and these could be either local or global.¹

Terrorist attacks on energy supply infrastructure, including attacks on oil and gas pipelines or crude thefts of oil, have seen a sharp rise worldwide. It is only logical to assume that such attacks on targets such as refineries and tankers are also likely and would naturally be more serious and cause lasting damage. 'The Targets for Jihad' that appeared in March 2005 on the Risalat al-Umma forum was issued and propagated by the al-Qaeda which has encouraged and urged attacks on energy installations and infrastructure. This type of target choice is based on the premise as clearly indicated in the treatise that "oil, in addition to the heroin drug trade, are the alleged components of America's now-failing economy," and the belief that to strike the base from where America "extorts" resources from the Muslims, will have a domino effect which will ruin it financially, militarily, and psy-

chologically.” The same exposition advocates attacks on the proposed Turkmenistan-Afghanistan-Pakistan (TAP) project in Afghanistan, the Alaska pipeline as well as oil installations in Iraq.²

If we compare the primary energy resources, we find that gas is more vulnerable to attacks than oil as pipelines are the only means for its transportation. Physical disruptions of supply of gas in times of conflict or other crises could result in a dire situation as many countries at present are unable to prevent such incidents from happening. Oil, on the other hand, could be transported by means other than pipelines, for example by tankers or other land-based transportation means. To minimize the impact of energy crises, states have been trying to diversify their energy sources. LNG is an alternative choice that could be supplied and transported by tankers and rerouted in times of crisis at a minimal cost.

Typically energy security implies both security for production and transportation.

- 1) In terms of production energy security would be to secure the supply end of the energy resources. Security for production would involve both physical and political security. Physical security would entail provision of security to the oil wells, or gas fields and supply, the production machinery and security for the personnel involved in the production stage. For example in Iraq where there is an overwhelming security crisis the central government is neither effective nor in a position to secure the oil production for distribution and supply.
- 2) The second stage is of transportation of oil/gas/other valuable energy resources from the producer to the consumer. In this stage security would be required for pipelines, tankers and railway and any other means of transportation.

The Security and Viability of Pipelines

Any project involving the supply of oil/gas that is “a strategic commodity” would naturally have a high security risk factor attached to it. The economic feasibility of pipelines – usually high cost projects as opposed to sea or other means of transportation – is one of the factors that will determine its viability along with the other major determining factor of security. Consequently, the viability of any pipeline project

is dependent on finding a balance between the cost of its implementation and maintenance, and ensuring safety guarantees for provision of uninterrupted energy supply.

- 1) Pipelines for energy transportation are the only option for landlocked countries.
- 2) Those countries that have a sea coast will have to calculate the cost benefit of a pipeline in terms of geography and location vis-à-vis neighboring energy export countries. For example, for a country like China one could calculate the cost benefits for an overland pipeline from Pakistan’s Arabian seaport to its western provinces and compare the cost of transporting petroleum from the Gulf States to its eastern seaboard and then transportation of the same to its distant western regions.
- 3) In all cases, however, a pipeline would serve an additional strategic advantage as it would be an alternative to sea transportation. The economic viability of any energy investment project involving transportation would need to be determined in terms of several factors including geography, strategic political situation, and any economic considerations.

Pipeline security would involve physical security of the pipeline itself, the pumping station and the reservoirs, and of the network linked to the pipeline. Pipelines are the most attacked and easy target for both political and criminal elements interested in sabotage.

Pipeline security would involve physical security of the pipeline itself, the pumping station and the reservoirs, and of the network linked to the pipeline. Pipelines are the most attacked and easy target for both political and criminal elements interested in sabotage. What sort of guarantee can the government give to such a huge costly project for its protection as well as secure operation? There are some options that are usually listed as part of the physical guarantees the government provides; these include security forces that would guard the project as well as other means of monitoring, including electronic monitoring. Provision of security forces to monitor the entire length of the pipeline is, however, not physically possible; since pipelines in this case would pass through hundreds of kilometers in possibly uninhabited wilderness.

The viability of a pipeline project is thus linked to the question of security, for if there is no security it is not viable to go ahead with such a costly project. The cost of such an investment heavy project always needs to be compared to the benefits. This study will not be addressing the question of economic viability but will instead focus on the viability of a project in terms of security.

Threats to Transnational Pipeline Projects in Pakistan

First among the threats facing transnational pipeline projects in Pakistan is the political threat that is posed by the state in the event of a possible military confrontation or political standoff with India or Iran and vice versa. Transnational projects entailing energy dependency are open to the risk of being controlled by a particular state in sensitive times as it holds high leverage potential. It could be used as a tool to pressurize either the producer country or the consumer country to comply with certain conditions.

Second is the threat posed to such projects by non-state actors. In the case of Pakistan, this would include, in light of the developments post-September 11, a varied group including the Baloch nationalists, the Taliban and the al-Qaeda. Other sectarian and terrorist outfits that have a vested interest in sabotaging any project could also act deliberately in a bid to augment Indo-Pak hostilities leading to escalation in tension. The use of tactics that aim to affect relations with other states or deter foreign investments in Pakistan is also a likely possibility.

The Pakistan government needs to provide guarantees at all levels, not only verbally but physically; it seems like a hard task especially when we look at the several fronts in the war against non-state actors such as nationalist and terrorist groups. The government could in the context of physical security undertake the following steps:

- 1) Re-route the pipeline to a stable and secure area: Such a step might be more costly, but in the long-term it would be more cost effective and provide greater security.
- 2) Provide more security guards, construct check posts along the route in sensitive areas, and organize security patrols to minimize the threat from criminal and terrorist groups.

- 3) Have the infrastructure and logistical capacity to repair any damage; this requires a rapid response unit to respond immediately to an attack and consequent damage caused.

Energy security is a very broad term with many different aspects. The energy security for producer states is different from that of consumer states. In the case of Pakistan, energy security would entail the security of supply to maintain oil production and transportation. Pakistan would need to multiply the sources of supply. It may also need to increase its reserve capacity to about 2-4 weeks of energy supply to preempt problems in case of a crisis in the state or in the oil-exporting markets. One has to accommodate the possibility of an oil supply crisis in the context of shortages –supplies to other markets interrupted due to conflicts – as well as any spiraling rise in oil prices and take preventive measures or prepare for such a crisis happening. If it is ill-prepared to meet such a crisis – the likelihood of which is always present considering the volatility of the region – Pakistan's financial and economic growth would receive a serious setback.

Besides the proposed pipeline projects, Pakistan's energy sector has recently seen some big investments from the Gulf and China that could also be vulnerable to attacks by non-state actors.

If we consider the Iran-Pakistan-India (IPI) project that will supply Iranian natural gas to India and will pass through Pakistan in an overland pipeline, there are two types of threat that could affect the project. First and foremost is a political threat in the context of the conflict-ridden relations between Pakistan and India and their longstanding differences over Kashmir that has resulted in three armed conflicts between the two nuclear neighbors. The second is the direct security threat posed by insurgents/terrorists in both Pakistan and India.

Besides the proposed pipeline projects, Pakistan's energy sector has recently seen some big investments from the Gulf and China that could also be vulnerable to attacks by non-state actors. Multi-billion dollar oil refineries at Khalifa point near Hub (Balochistan) and Port Qasim (Karachi) as well as plans to build a petrochemical complex city at Gwadar are underway. The International Petroleum Investment Limited, owned by the Abu Dhabi government, and Pak-Arab Refinery

Limited would jointly set up a 200,000 to 300,000 bpd deep conversion refinery at Hub, which is expected to be completed by the end of 2010.³ Similarly, a Kuwaiti company Midrock is investing in a 42 billion lube oil refinery, naphtha cracker and petrochemical complex at Port Qasim and also looking to invest in an oil refinery and LPG terminal project at Gwadar.⁴

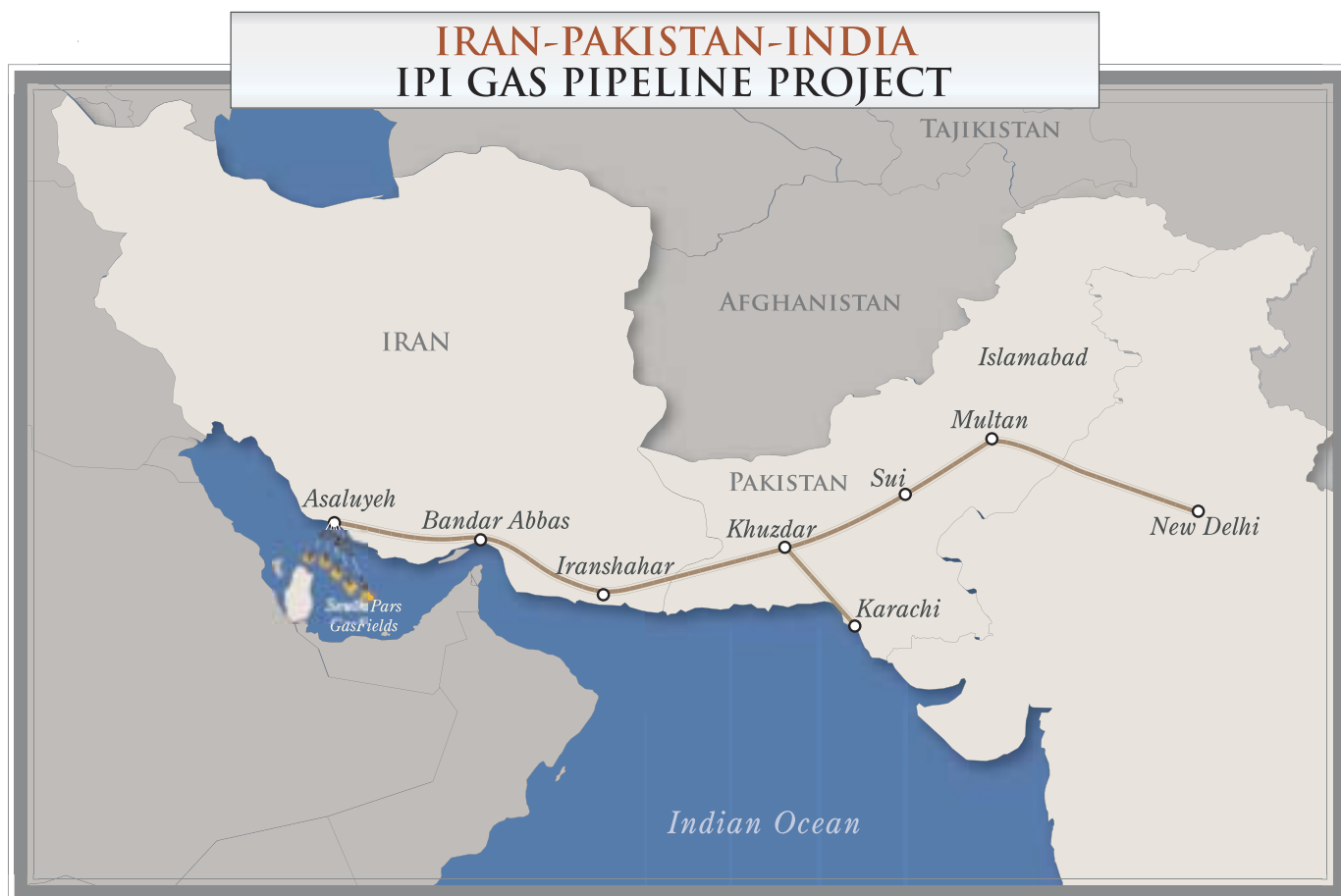
The study will now examine the principal projects that are expected to supply energy, either oil or gas, from the Gulf States to Pakistan, China and India and other regional states in the near future.

Proposed Pipelines

1. Iran-Pakistan-India Project (IPI)
2. Qatar gas export projects to Pakistan
3. Gulf-Pakistan (Gwadar)-China oil/gas pipeline

1. The Iran-Pakistan-India (IPI) Pipeline Project

Iran has the world's second largest gas reserves of 812 trillion cu feet that amounts to 15.8 percent of world's total available supply. The IPI project has been in consideration for nearly a decade. It is considered the most economically viable project to supply gas from Iran to Pakistan and India. The 2,600 km, 150cm/d overland pipeline to India traversing Pakistan is projected to cost a hefty \$7.4 billion.⁵ Initially the pipeline will carry 60 million cubic meters of gas that will be exported daily to Pakistan and India and distributed equally between the two countries. The pipeline capacity will be then gradually increased to 150 million cubic feet.⁶ The project is expected to become operational as early as 2010-2011 in the event of it being finalized. Funding for the project is not expected to be a major problem as there have been indications from the World Bank recently on its readiness to finance the proposed project. It remains to be seen if funding does materialize as many international financial in-



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MAP 1

stitutions would face pressure from the US against entering into projects with Iran due to the sanctions that have been imposed on the country.

This project is also a key factor in measuring the extent of trust between the two neighbors (India and Pakistan) whose relations have been marked by conflict and tension.

The IPI pipeline is to connect the South Pars gas fields in Iran with the Hazira Bijapur Jagdishpur (HBJ) pipeline in India (this is the main gas distribution pipeline in India) and will cross 475 miles through Balochistan. Declared integral to meet the energy demands of both Pakistan and India, the deadline for signing a tripartite agreement on the project is scheduled for the end of June or possibly in July 2007. While negotiations over transportation tariff and transit fees are underway, it is expected that the three states will come to an agreement for the project. (Refer to Map 1)

This project is also a key factor in measuring the extent of trust between the two neighbors (India and Pakistan) whose relations have been marked by conflict and tension. The IPI project is of prime importance to Pakistan as it would not only meet the growing energy requirements but also give transitory financial benefits to the country. The leadership in Pakistan is fully aware of its import; this can be gauged from Prime Minister Shaukat Aziz's statement that described the IPI project as "a win-win proposition for Iran, India and Pakistan." He felt that it could "serve as a durable confidence building measure creating strong economic links and business partnerships among the three."⁷

There is the possibility that India might opt out of the IPI project in view of the civilian nuclear energy deal with the United States and the pressure it faces from the US against entering any such project with Iran. In that case, the feasibility of the project would come into question considering the cost of establishing and maintaining a pipeline from Iran to Pakistan without the large energy markets of India to make it worthwhile. Pakistan has declared its decision to go ahead with the project with Iran even in case of India's withdrawal. Pakistan will have to weigh the advantages of this project that, it is now rumored, will yield only about \$150 million as transit fees and not \$700 million as envisaged earlier. Besides, the

cost of maintenance of the pipeline, provision of security as well as laying of the highly expensive underground pipeline to avoid sabotage by Baloch nationalists all pose a serious challenge. Pakistan, however, has a substantial stake in the project and is likely to want to see it implemented. Similarly India, despite US pressure, in all probability, would continue with the IPI project as it is known to follow an independent line in its foreign policies putting priority on its interests.

2. Qatar Gas Export Projects to Pakistan

The gas supply project to Pakistan was initially proposed in the 1990s following the development of the North Gas Fields in Qatar and the consequent possibility of supplying gas to other GCC countries. The initial plan was to supply gas as part of the Dolphin project to Pakistan by a sub-sea pipeline from Oman. The Dolphin extension is to be part of the cross-border energy network that will supply Qatari gas to UAE and Oman. The Oman-Pakistan extension project entailing a pipeline 1,830 km long was expected to take five years to build at an estimated cost of \$3.5 billion and was to supply Pakistan with 1.6 bcfd of natural gas. Pakistan signed a preliminary MoU with UAE Offset Group (UOG) and Qatar in June 1999. However to date, plans on implementing the Oman-Pakistan pipeline have not materialized due to economic and technical considerations that put the viability of this project into question.

To date, plans on implementing the Oman-Pakistan pipeline have not materialized due to economic and technical considerations that put the viability of this project into question.

First, it is clear, as stated on several occasions by both Qatar and Pakistani officials, that Qatar at present or in the next 8-10 years will not have sufficient gas supplies to meet the energy demand in Pakistan due to its commitments to other regional states. Pakistan had later requested for gas supplies from the project to be increased to 2.6 billion cubic feet in view of its predicted energy shortfall. Besides the supply factor, other technical considerations like the deep sea route made the project very costly.⁸ Pakistan, for these reasons, had to consider other options like gas imports from Turkmenistan and Iran. Qatar, because of Pakistan's lack of positive response to the proposed project initially, also allocated the gas reserves



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MAP 2

originally located for Pakistan to another country. However, Qatar has reiterated that it will stand by its initial commitment in case something feasible is worked out in the future. Pakistan has also expressed its desire to import liquefied natural gas (LNG) from Qatar to cope with the impending gas shortage in the country.⁹ (Refer to Map 2)

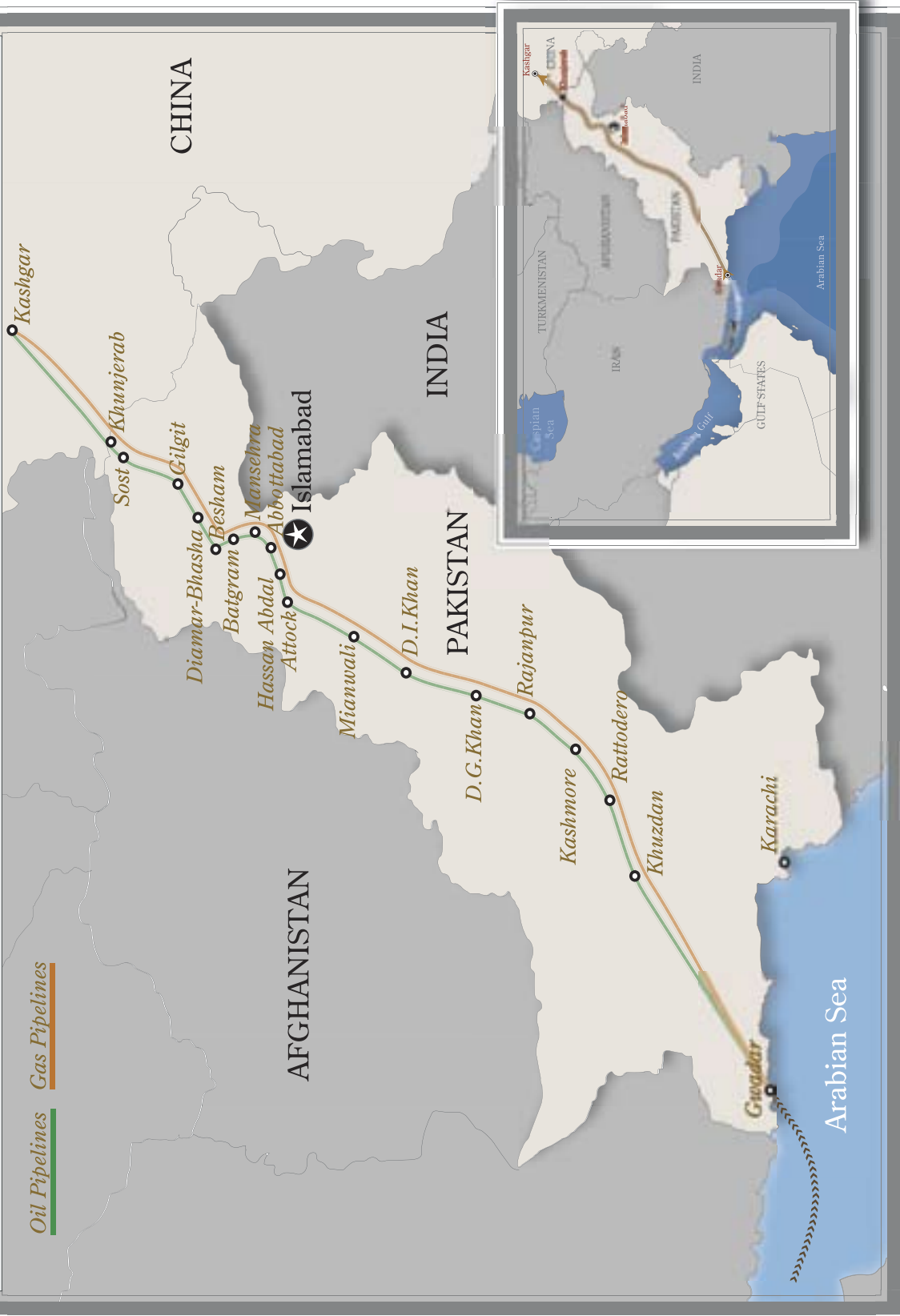
However, in the future, the possibility of extending gas supply from Qatar through Muscat to Gwadar or another port on the developing Makran Coast in Pakistan cannot be ruled out. Muscat is at a distance of 365 km from Gwadar, and Pakistan is still hopeful of the project being implemented in the future as it would be a feasible proposition for extending gas supply from Oman to Pakistan. As pointed out before, one of the reasons for not extending the Dolphin project to Pakistan as yet is said to be insufficient supplies to meet the energy demand en route in UAE and Oman. In the event of more gas reserves being found, this project could well materialize and

even be extended to supply gas to either India or China.

3. The Gulf-Pakistan (Gwadar)-China Oil/Gas Pipeline

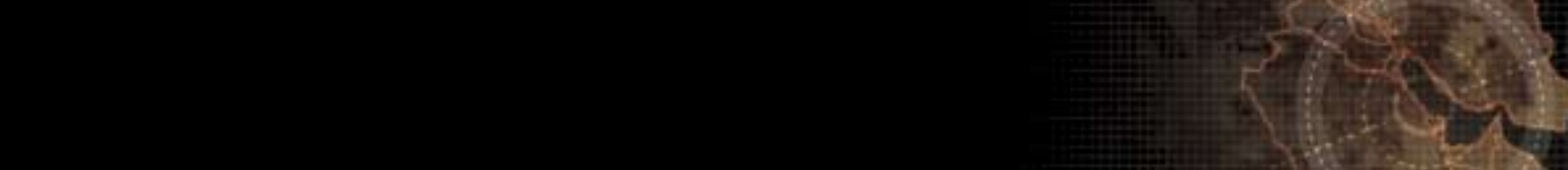
Gwadar is strategically located on the southwest coast of Pakistan close to the Strait of Hormuz and in close proximity to the Gulf shipping lanes. Its geostrategic position and potential capacity to handle large shipments of Gulf petroleum and energy products for energy-hungry China are factors that have determined the investments by China in the project. Large investments to the tune of \$ 198 million have been made so far for the construction of the port and a \$200 million coastal highway being built from Gwadar to Karachi. Additionally, China recently announced the construction of a state-of-the-art airport at Gwadar at a cost of \$100 million. It also plans to invest an additional \$500 million in developing Gwadar and setting up a petrochemical complex at the port. Besides securing a more economical alternate

GULF- GWADAR (PAKISTAN) - CHINA: OIL / GAS PIPELINES



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MAP 3



route in terms of distance and time for its energy supplies, China has serious concerns about the security of its energy supplies. These center on the maritime security of its vital energy shipments from the Gulf that pass through the Straits of Hormuz and Malacca.

If an energy pipeline is laid from Gwadar to China, the former's proximity to China's Xinjiang province will help in catering to the huge energy demand in that region; Gwadar is only 1,500 km away from Kashgar, the main city in the Xinjiang province. Since the current oil supply from the Gulf States to China takes the sea route, the pipeline would be an effective and cheaper means of import. Xinjiang province, one of the rapidly developing industrialized regions in China, is located in the landlocked western-most part of the country. It is the furthest from the seaports and at an approximate distance of 3,500 km from where most of the oil shipments from the Gulf presently arrive. China's share of oil imports from the Gulf States is expected to touch 70 percent by 2015. Besides considering the pipeline project, China is also planning on building an oil refinery and petrochemical complex with an initial capacity of 10 million tons per year that will be later expanded to 21 million tons. This petrochemical city complex is being considered by the Great United Petroleum Holding Co (GUPC) under a MoU signed between Pakistan and China in December 2006.

Pakistan is keen on further developing the energy trade link with China and is working intently towards that. It recently offered, on the occasion of the Prime Minister's visit to China, another energy corridor for gas from the Middle East to western China and the Central Asian States.¹⁰

Developing an energy corridor and trade route from Gwadar could well be a feasible and cost effective project; that is the major reason China has expressed interest in helping Pakistan to develop the port. (Refer to Map 3)

The latest reports find China still mulling over an oil pipeline from Gwadar to Xinjiang province after a feasibility study cautioned about the high costs that could be incurred in pumping oil via a pipeline on a route that traverses high mountain passes in the Karakoram mountain range on the Pak-Chinese border. The pipeline was proposed to be built along the Karakoram highway that is the major transport and trade route linking the two countries. However, China and

Pakistan are now looking at laying gas pipelines that do not pose the same logistical challenges. This would then provide a feasible option to get gas from Qatar or possibly Saudi Arabia. Apart from gas, refined petroleum products and oil could be taken to China by the new railway links that are to be established along the existing trade route. Improvement of the existing highway, as well as the laying of at least two to five new roads in addition to new railway links from China to Pakistan and Afghanistan, is expected to raise the volume of trade in the region. Pakistan's proximity to the Gulf States as well as China and India could serve all the regional states dynamically if a sound and secure energy transportation infrastructure is developed.

The Security Situation in Balochistan

The security situation in Balochistan through which large sections of the future pipelines will pass is one of the factors determining the implementation of energy investment projects in Pakistan. Investors have been wary of the periodic sabotage attacks on the Sui gas pipelines in Balochistan and the threats emanating from the Baloch nationalists. In early 2006, three Chinese civil engineers were killed and 11 wounded in a terrorist attack. The majority of the Baloch view the Gwadar pipeline project as "usurpation of Balochistan's natural resources" because of the government's rumored plans to have a workforce of people from Punjab and Sindh instead of the Baloch in the projects.¹¹

The Pakistan government believes that the cost of securing pipeline projects against attacks by the nationalist elements will not be as much of a complex challenge as has been estimated.

The Pakistan government as part of its drive to ensure security in Balochistan has, after rooting out much of the Baloch insurgency in 2006 by military operations, also announced a development package of \$ 2.2 billion for the area. Besides economic incentives being offered to the Baloch people, a military cantonment was recently opened at Sui that was inaugurated by President Musharraf on May 10, 2007; this is seen as another measure to deter future security threats.

It should be mentioned that the proposed pipelines will not pass through the tribal areas that belong to the Bugti or Marri

tribes, the two tribes that have been at the center of the Baloch insurgency. Even within these tribes some factions have reached an agreement with the government whereby they are provided employment and some royalties and in return they ensure safety and security of the projects.

The cross-border energy pipeline projects would also be an effective way to reduce and eliminate any foreign subversion efforts in the province.

The Pakistan government believes that the cost of securing pipeline projects against attacks by the nationalist elements will not be as much of a complex challenge as has been estimated. In reality, to date major gas supplies coming from Balochistan to big industrial centers within the country have not been disrupted. The much reduced Baloch insurgency at present does not pose a serious threat to the energy network in the province, nor is it expected to do so in the future.

The measures the Pakistan government is likely to take to ensure security and safeguard foreign investment would include the provision of physical security for pipelines besides vigilant monitoring and maintenance. Besides paramilitary forces, the security strategy would include involving the local tribes and inhabitants in areas along the route of the pipeline in the security arrangements. This would require economic integration of the local people by giving them employment and other economic and development packages that would serve as necessary inducements.

The cross-border energy pipeline projects would also be an effective way to reduce and eliminate any foreign subversion efforts in the province. For example, in the last insurgency episode in Balochistan India was alleged to have played a major role in providing arms and funds to the Baloch insurgency against the federation. In case of the implementation of the IPI pipeline whereby there is a situation of interdependency between the two countries, it is expected that any subversion efforts in Balochistan by India will be lessened. Similarly, the likelihood of any untoward interference by Iran in Balochistan would be lessened by the implementation of the project.

However, in the context of the precarious security situation in Pakistan, especially in the tribal belt bordering Afghanistan,

with an undetermined number of international terrorist networks operating from across and within the borders, it is possible that such organizations will likely target any energy project, including pipelines, refineries and industrial units.

Overview

Any proposals to lay pipelines that link the Gulf region to South and Central Asia in future will, in all cases, take into account the crucial determining factor of energy security. As in all the cases discussed previously, energy security will be, in fact, the most important factor in determining the viability of such projects. Pakistan's geostrategic advantages as the transit state between the Gulf energy producers and the main Asian consuming states of India and China would be beneficial not only economically – it stands to gain transitory fees from some projects and its own energy demands will be met – but also in securing a more stable and secure regional political environment. Increasing economic and energy cooperation with India because of the IPI pipeline would be a significant confidence building measure between the two countries. The political-security and economic implications of this project as well as the Qatar gas projects and the Gwadar-China project make them particularly vulnerable to security threats.

China's interest in developing a trade and energy hub at Gwadar and extending routes that serve its energy demands are reflective of its proactive energy policy. Considering its rapid economic growth and growing energy needs, it cannot afford to slow down its pace. India, as the second biggest energy market after China, is another regional power that is exploring several options to meet its growing energy demands.

The viability and implementation of the pipeline projects, whether oil or gas, are incontrovertibly linked to the guarantees the Pakistan government is able to provide.

Pakistan, as it stands poised to become the strategic juncture of the regional energy trade, also faces at present too many fronts in the war against terror plus a restive militant Baloch nationalist element. Unless the government of Pakistan makes a concerted effort to engage the Baloch in these projects and give them their due share in the resources besides supporting

the development of the province, it is likely that they might face an ongoing security challenge to these projects. Involving and integrating the local Baloch populace in infrastructure development associated with energy projects would work towards the government's benefit.

The viability and implementation of the pipeline projects, whether oil or gas, are incontrovertibly linked to the guarantees the Pakistan government is able to provide. In order to implement these projects the government needs to actively engage in forming a strategy and devising a regional cooperation security framework wherein all states in the cross-border land routes could participate and cooperate.

The Gulf States particularly Saudi Arabia are keen to pursue an eastward policy and have in all probability realized the long term economic benefits of establishing an energy and trade corridor through Pakistan to Central Asian states, China and India.

Besides physical security and maintenance to ensure regular supply, security guarantees of a political nature also need to be sought in transnational projects such as these. If we look at the IPI case, Pakistan and India as well as Iran will need to bear in mind that they need to go an extra mile to reassure the other parties, especially in a volatile atmosphere where there is a history of conflict and unresolved territorial disputes. However, it must be pointed out that the project holds the potential of bringing about vast improvement in the security environment between the states especially India and Pakistan.

Gas projects from Qatar and those that utilize oil and gas from other Gulf States to serve the energy demand in South West Asia and China will have a tremendous impact in knitting the regions together in a healthy interdependency in energy and trade. Pakistan's advantageous position at the juncture

of the energy and trade grid can bring long term benefits if it is ready to take concrete steps for political stability which would include resolving any domestic political crisis that could be a plausible threat to existing or future projects.

The many positives emanating from the energy investment in Pakistan are an indication that the tremendous recent economic improvement and economic reforms have attracted foreign investments in a major way. Multi billion dollar investments by the Gulf States in the energy sector in Pakistan including oil refineries as well as the Chinese investment in development of Gwadar are all reflective of that. The Gulf States particularly Saudi Arabia are keen to pursue an eastward policy and have in all probability realized the long term economic benefits of establishing an energy and trade corridor through Pakistan to Central Asian states, China and India.

The study concludes on a cautionary note and would like to recommend that all states who are involved in transnational energy projects work at creating more confidence building measures and formulate political and economic strategies to implement the projects. We reiterate the significance of energy security that is vital to both producer and consumer states and also urge the regional states to include energy security in their national strategy on political, economic and security relations. For now, there is a rising sense of urgency in developing energy links and trade among the regional states that is visible in bilateral meetings and visits. To fully benefit from an integrated regional energy infrastructure the states would be required to have a long term ongoing commitment towards developing such an energy network, thus making adequate provisions for their energy security.

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3 'Pakistan's Energy Sector & Investment Climate: Emerging Investment Opportunities in South Asia Power Sector,' Mukhtar Ahmad, Advisor to the Prime Minister of Pakistan on Energy, March 20, 2007. Also see Dawn, November 7, 2006.

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Economic Jihad: A Security Challenge for Global Energy Supply

Nicole Stracke

The concept of jihad is an integral part of Islamic teaching and principles. The Arabic term jihad has been simply translated in English as 'holy war'. However, jihad is far more than holy war. Jihad is not a voluntary act; it is rather a duty and obligation on every Muslim under certain circumstances. The Islamist fundamentalist argues that the present circumstances dominating the Islamic world the occupation of Iraq, Afghanistan, and Palestine require the activation of jihad. The fundamentalist literature highlights two kinds of what we can term as 'physical' jihad: political and economic jihad. While jihad in general aims at the expansion and defense of the Islamic nation or 'Ummah', political and economic jihad specify the tools. Political jihad seeks political gains: it aims to undermine political forces, governments or "their Western allies", and attacks are directed against the state's political institutions or key politicians.

Over the last five years economic jihad has become a new trend and, in some cases, a substitute for political jihad.

Economic jihad is complementary to political jihad; it has the same objective, namely to undermine and weaken governments. The main difference lies in the nature of the targets subjected to sabotage or destruction. Instead of targeting political institutions, economic jihad directly targets the heart of the "enemy's" economy such as oil infrastructure or the tourist destinations. The content of economic jihad is not far from the content of the widely used technical term 'economic war.' It is based on the assumption that attacks on economic and financial targets lead to economic crises. These will eventually cause political destabilization undermining the government's credibility and survivability by creating a slowdown in economic development and investment, coupled with financial losses, unemployment, and lack of services.

Over the last five years economic jihad has become a new trend and, in some cases, a substitute for political jihad. In

some countries, the increasing number of attacks on economic infrastructure has made it more difficult for government and security forces in the Middle East to stay one step ahead of the terrorists. Ironically, the more government invests in their security systems the more inventive terrorists have become, finding new ways to bypass security measures and come up with new tactics and methods of operation.

This article will shed some light on the target policies of economic jihadis. It will further explain why economic jihad has been employed as a tactic in some countries and not in others, and will examine the question of whether or not economic jihad poses a challenge to Western states.

Key Findings

- Attacks on economic targets, in particular oil industry infrastructure, represent a new shift in al-Qaeda's top leadership strategy, which has been implemented, so far, by the organization's local branches in Iraq, Saudi Arabia, and Yemen.
- In the Gulf region, attacks on oil and other energy-related targets represent the main form of economic jihad. These attacks constitute a threat not only to the oil-producing countries but also to the consuming states. Thus, attacks on Gulf oil installations have a double economic impact.

Rentier states and semi-rentier states are far more vulnerable to economic jihad than states with diversified economies.

- Terrorists design their targeting policy to correspond with the nature of the political system. While in the authoritarian systems of the Middle East, terrorists directly target political and economic institutions to achieve political gains, it is difficult to apply the same tactic in the democratic Western societies.
- Rentier states and semi-rentier states are far more

vulnerable to economic jihad than states with diversified economies.

- Terrorist target policies are linked to a state's security environment. Changes in the state's security environment or its policies can cause terrorists to modify their strategies. For example, when political targets are shielded by high security and become difficult to strike, terrorist groups shift to soft targets including economic and financial infrastructure.
- Attacks on public service sectors (such as transportation systems) is not, necessarily, considered an attack on a primary economic target. It is rather a tactic aimed at generating political pressure by employing the mass killing technique.

Attacks on Oil Infrastructure are at the Heart of Economic Jihad

In Bin Laden's 'The declaration of jihad against the US occupation of the Arabian Peninsula' issued in August 1996, America's alleged 'control' of Muslims' oil wealth was identified as the main source of the weakness of the Islamic nation Ummah. In December 2004, the organization released an audio tape showing Osama Bin Laden calling on his supporters to attack Iraqi and Gulf oil facilities. At the end of 2004, or beginning of 2005, one of al-Qaeda's scholars Shaikh Abdullah Bin Nasser Al-Rashid produced an in-depth study offering an insight into al-Qaeda's vision on the topic of economic jihad. In this publication Al Rashid specified the targets and provided the legitimization for attacks on oil infrastructure. Shaikh Al-Rashid was arrested by Saudi security in mid-2005; however, Rashid finalized his study, which received high media interest during March 2006.

His publication titled "Judgment on Targeting Petroleum Interests", introduces the concept of economic jihad and declares it as "one of the most powerful ways in which we can take revenge on the infidels during this present stage." The author identified three main courses of action within the concept of economic jihad:

- 1) Military action to protect or enhance Muslims' economic resources
- 2) Military action to destroy the 'enemy's' economic resources
- 3) Non-military actions targeting the 'enemy's' economic

resources, like economic boycotts, negative propaganda targeting the 'enemy's' products and goods, and other non-military tactics.

In his study, Al Rashid gives special attention to attacks on oil industry, which he considers a part of "legitimate economic jihad". He identifies four main targets: oil wells, pipelines, oil installations and personnel of the oil industry.

Oil Wells: Oil wells should not be targeted or destroyed. Instead, oil well facilities or equipment such as drilling machines and pumps could be targeted with the aim of disabling the production process and rendering the wells inoperable. However, Al-Rashid provides two circumstances under which attacks on oil wells are allowed:

- With the explicit permission of the Ulama (religious leaders and scholars)
- And only when the first action (targeting well's facilities) is judged as difficult, or does not disable the production.

Oil Pipelines: Targeting oil pipelines is permitted and attacks on pipelines are considered to be an easy and effective action.

Oil Installations: Targeting oil installations is permitted, unless its ownership is Muslim.

Personnel and Management of Oil Industry: Two kinds of individuals fall into this category:

- Individuals who, according to Islamic teaching, can be harmed or killed
- Individuals who, according to Islamic teaching, are forbidden to be harmed or killed. This includes the life of oil personnel which must be protected. However, under certain circumstances, their immunity could be removed and killing them could be permitted if such actions become unavoidable to serve the interests of their fellow Muslims.

Saudi Arabia

Economic jihad has specially targeted Saudi Arabia. Being the birthplace of Islam and the custodian of the religion's holiest places in Mecca and Medina, the Kingdom inherits a special status among Muslims around the world. At the same time, the Kingdom is the world's leading oil producer and exporter and

has a pre-eminent position in the regional and international oil market. Any successful terrorist attack in the Kingdom would expose the government's weakness to protect its oil infrastructure, interrupt oil production and export, and cause huge financial losses for the government.

The lack of public support, and the combined effort of government's counter-terrorism strategy, security crackdowns and media campaigns made it difficult for al-Qaeda to continue its operations and subsequently forced the militant leadership to rethink their target strategy.

Economically, the impact of an attack on Saudi oil production and export infrastructure would not be limited to the Kingdom itself; it would also influence the stability of the international oil market. Besides its role as a main oil producer with nearly 10 million barrels per day, its high production capacity has enabled the country to act as "swing producer" to balance fluctuations on the oil markets. For that reason, the international oil market in the past has been particularly sensitive to any attack on the Kingdom's oil infrastructure.

Politically, given the overall position of the Kingdom, its religious status and the Kingdom's role in the stability of the global oil supply, the country is a high-value target for terrorists. Over the last few years, the Kingdom has been targeted by terrorist groups, particularly the "Al-Qaeda Organization in the Arabian Peninsula."

In March 2003, al-Qaeda started its war of terror against the Saudi government. Foreign and US targets in particular were top on the hit list of terrorists, besides Saudi civilian and government targets. In May 2004, terrorists attacked the offices of a Saudi oil company in Khobar and took foreign oil workers hostage.

However, the Saudi branch of al-Qaeda miscalculated the impact of its terrorist attacks on the Saudi population. Instead of gaining public support, the attacks on the housing complexes in 2003 and 2004 provoked strong criticism from the Saudi population who accused al-Qaeda of killing innocent Muslims including Saudi and Arab citizens. The lack of public support, and the combined effort of government's counter-terrorism strategy, security crackdowns and media campaigns

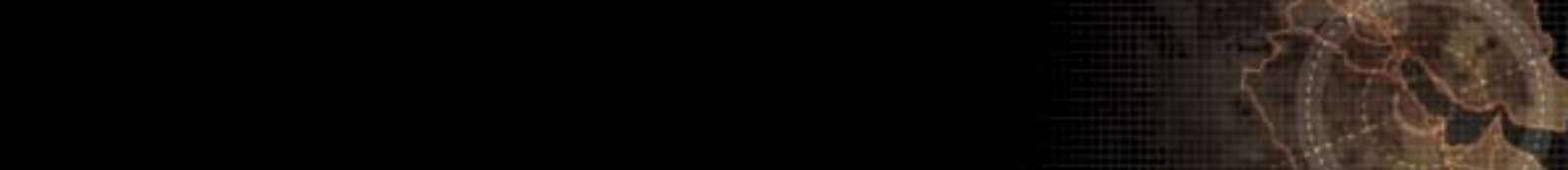
made it difficult for al-Qaeda to continue its operations and subsequently forced the militant leadership to rethink their strategy and think about alternatives on how to target the Saudi government.

The subsequent change of the security environment in the Kingdom forced al-Qaeda to change its tactics on the operational level, and al Qaeda began shifting its attacks from soft to hard targets. Attacks on hard targets such as government buildings would limit the number of civilian casualties while attacks on oil infrastructure would affect the financial strength of the Saudi government, namely oil revenues. In December 2004 terrorists attacked the US consulate in Jeddah, killing five consulate employees. A few weeks later, a suicide car bomb exploded outside the Saudi Interior Ministry and the Special Emergency Force training center.

The first attack on Saudi oil installations occurred in February 2006 on the Abqaiq oil installation. This target was chosen because of the immense strategic value of the complex; it processes around 7 million barrels of oil per day which represents two-thirds of Saudi production. It is the single largest oil processing facility in the world with the oil coming from Ghawar, Shaiba, Haradh, Al Othmania, fields besides from Abqaiq itself.

In April 2007 Saudi security forces arrested 172 terror suspects who had formed seven independent cells that planned major attacks on strategic oil installations in Saudi Arabia, Kuwait and the United Arab Emirates.

The attackers initially planned to destroy the gas storage facilities and other critical installations. In doing so, they expected that the consequent explosion and fire would destroy an estimated area of 60 km around the center of the attack occupied by the oil installations and facilities. The aim was to inflict maximum damage to oil infrastructure and disable oil production and processing. The Saudi security forces were able to intercept the attackers before they reached their intended target. According to official statements, the damages were limited to a minor fire which was instantly contained. While production processes were not affected, two security men were killed.



Even though security forces prevented any major damage to oil infrastructure, the threat of terror attacks aimed at Saudi oil installations remained. In April 2007 Saudi security forces arrested 172 terror suspects who had formed seven independent cells that planned major attacks on strategic oil installations in Saudi Arabia, Kuwait and the United Arab Emirates. Two of the cells were responsible for the attacks in Saudi Arabia including oil installations in Khobar, Jubail and Abqaiq. During their investigation the Saudi security services learned that among the members of the seven cells, two individuals had received training as pilots outside the Kingdom leading them to the conclusion that terrorists were planning an air strike on the oil installation.

The Saudi security services learned that two individuals had received training as pilots outside the Kingdom. Terrorists planned air strikes as they calculated that the success of such an operation is higher than an attack on the ground.

This should not come as a surprise: terrorists have been changing tactics with both the experience they gain through their operations and in response to the changing security environment. If security becomes tight, terrorists look for ways to bypass security measures. Following the Abqaiq attack, the Saudis stepped up security measures around oil installations enhancing the size and the capability of the countermeasures and placing the already reinforced oil protection forces on alert. Terrorists planned air strikes as they calculated that the success of such an operation is higher than an attack on the ground. While terrorists are aware that Saudi air defense protects the oil installations they may have counted on the advantage of a surprise attack.

Terrorists learn from each other to improve and develop their tactics; for example, the terrorist groups operating in Saudi Arabia add their own experience and skills to that gained from other jihadi groups in Iraq, Afghanistan, and other jihad fields. The learning process is not confined to the information provided by groups in Iraq or Afghanistan and elsewhere; terrorist know-how is available worldwide. In March and April 2007, the Sri Lankan Tamil Tiger rebels launched their first airborne attacks on Colombo's airport and military bases. Given the learning aptitudes of terrorist groups, it is safe to assume that the Tamil Tiger operations were closely monitored and will inspire other groups to follow suit.

Yemen

Attacks on oil installations in Yemen took place in a style similar to that in Saudi Arabia. On September 15, 2006 four suicide attackers, driving four explosive-laden cars, targeted oil installations in Ma'arib and Hadramaut. However, just as in Saudi Arabia, the suicide bomber could not break through the security perimeter and cause potential damage.

For a poor country like Yemen which depends heavily on foreign investment and oil export, the terror attacks on its oil facilities came at a crucial time. The attacks had both a political and economic dimension. Politically, the attacks came four days after the fifth anniversary of September 11 attacks; and one week before the Yemeni presidential elections on September 21. Any successful terror attack would have discredited the governments counter terrorism policies, weakened the stance of President Saleh in the election campaign and strengthened the opposition parties.

Terrorist attacks on Yemen's oil installations could have a huge impact on the country's economy. Yemen is a poor country with a GDP per capita estimated to be around \$900 in 2005; its oil infrastructure is underdeveloped and the government depends heavily on foreign companies for investments in oil exploration, production and the construction and modernization of oil export outlets. Over the last 10 years, international oil companies working in oil exploration and production have increased rapidly. The competition among foreign oil companies contending for oil concessions is high; from December 2006 to April 2007 alone, the government claimed to have sold concessions for 13 exploration blocks. From December 1996 to April 2007, the total number of oil exploration blocks increased from 56 to 100, about 50 percent over the last 10 years.

The commitment of foreign oil companies to invest in the government's planned development of the Yemen oil sector however, is still uncertain; the companies are hesitant because of a number of technical, financial, political and security factors. The current oil contracts with foreign companies are based on Profit Sharing Agreements (PSA) that are usually, depending on the share of the profit margin, used for high-risk investments to attract foreign investors. Given the previous terrorist attacks on the French oil tanker Limburg in 2002 in the Yemeni waters, and the attempted attacks on

Hunt Oil Company operations in Yemen, political instability in the country, tribal clashes, and the lack of transparent economic policies, foreign investors already calculate the risk of investing in Yemen as high. Any further terrorist attacks in the country and on oil installations in particular will place the Yemeni government in a weaker bargaining position in its dealings with foreign oil investors and could generate a negative impact on the country's economy.

While the Yemeni security services tighten its protective measures around the capital and on hard targets throughout the country, it failed to consider potential soft targets.

In an attempt to prevent further terror attacks, the government boosted security measures around oil facilities and government institutions. In a direct response, the al Qaeda group in Yemen shifted its attention and resources towards the planning of attacks against the country's tourism sector. Next to oil revenues, tourism is becoming an increasingly important source of income for the Yemeni government who has undertaken a considerable effort to advertise Yemen as a traveling destination that is safe and secure. While the Yemeni security services tighten its protective measures around the capital and on hard targets throughout the country, it failed to consider potential soft targets such as tourist attractions in remote areas. For that reason, al Qaeda was able to conduct the successful attack on the Balquis temple, located in the remote province of Mareb, 170km of Sana'a. In July 2007, a suicide car rammed a tourist convoy leaving 7 Spanish tourists and two Yemenis dead. Preliminary information suggested the perpetrator of the attack was an Arab national, possible masterminded by al Qaeda militants still on the run after escaping from a Sanaa prison in February 2006.

The attack on the Spanish tourists questions the success of the Yemeni counter-terrorism strategies and directly challenges the widely unpopular counter-terrorism cooperation of the government with the United States. It also throws doubts on the Yemeni government's ability to control political and tribal forces in the country who provided support and protection to the masterminds of the attacks. In that context, it can be expected that the number of tourists visiting Yemen will decline, similar to what occurred following the kidnapping of 16 British, Australian and US tourists in late December 1998.

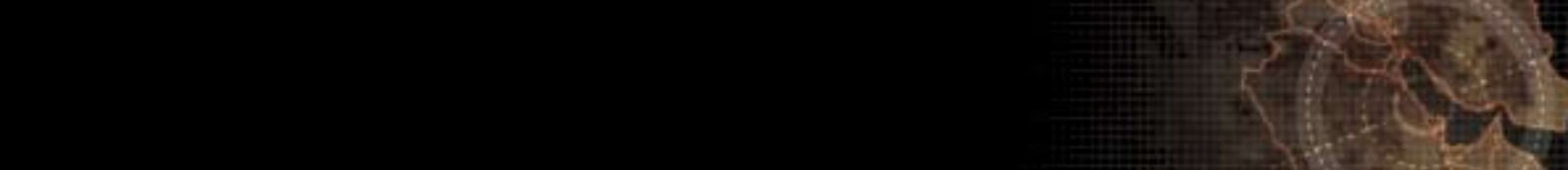
Moreover, the Yemeni government will once again have to counter perceptions of Yemen as a safe haven for terrorists. Given its economic situation, the government is already under tremendous pressure to keep and attract foreign investors. However, if further terror attacks happen, and investors perceive the government as unable to provide the sufficient basic security for business, both the number of investors and tourists will decline. This, in turn, would negatively effect the economy, strengthen the opposition parties and weaken the position of the Saleh government.

Iraq

Iraq offers a good example to illustrate the link between political and economic jihad. Given that the main strategic objective of the terrorist and insurgency groups is to force the US to withdraw the occupation troops from the country, political jihad in Iraq aims at raising the human and the financial cost of the war for the US. Economic jihad serves as a complementary tactic and aims at denying the US and the pro-US Iraqi government the financial benefits from the country's oil resources. Economic jihad targets the reconstruction of the country, and deepens the frustration of the Iraqi people about their government's incapability to improve living conditions in the country. Indeed, in the case of Iraq, at least 50 per cent of the attacks on oil sector installations are directed towards disabling the electricity supplies and the state's transportation system.

The attacks also follow an international agenda: attacks on the Iraqi oil sector, potentially, have far-reaching international consequences. Attacks on oil infrastructure are designed to effectively prevent Iraq from exporting its oil and deny the supply of nearly two million barrels a day to the world oil market. Terrorists and insurgents calculate that in a highly sensitive market where demand exceeds supply, targeting Iraq's export capacity will have some impact on oil prices, and indirectly harm the economic interests of the western world.

Over the past four years of occupation in Iraq, terrorists and insurgents have changed their targeting policy and tried to adapt to the change in the security environment where tighter security measures have been implemented by both the government and the occupation forces. In 2004, terror groups aimed primarily at pipelines, oil wells, refineries and



pumping stations. By the end of 2005, the Iraqi government stepped up security measures including recruitment, training and deployment of increasing numbers of oil protection forces. These measures supported the protection of oil infrastructure making it more difficult for terrorists and insurgents to conduct operations against key oil installations such as refineries and pumping stations. In response, terrorists and insurgents changed their target policy; while they continued to attack Iraq's 6,000 kilometer-long pipeline network, which often passes through isolated and difficult to protect areas, they also started taking aim at oil industry personnel and management. By 2007, assassinations and kidnappings of oil engineers, repairing teams, oil company managers, and attacks against labor and security forces outnumbered the attacks on key Iraqi oil installations.

Egypt: Economic Jihad targets Tourism

Egypt lacks the hydrocarbon resources of Saudi Arabia and Iraq. Instead, it relies heavily on service sector revenues that account for over 50 percent of its GDP. The main driver of the Egyptian economy is the tourism sector; the historical sights in Cairo and Egypt's tourist resorts attract thousands of European and other tourists every year. Terrorists are aware of the value of tourism for the Egyptian economy, and it is for this reason that the majority of terror attacks over the last decade were aimed at exactly those targets.

The nature of the tourism industry and related activities makes it difficult, if not impossible, for security forces to monitor and protect tourist locations including residences, historical sites, markets, and tourist transportation – all of these have figured on the target list of terrorist groups. Over the last few years, terrorist attacks have occurred regularly in the main cities such as Cairo and tourist spots such as Sharm Al Sheikh, cruise tourists, and tourist markets. To achieve maximum impact, terrorists have conducted many of their operations during peak tourist season, in particular during Easter and summer holidays.

Economic Jihad: Threat to the West

Terrorist attacks on transportation system such as in Madrid and London has limited and short-lived economic impact. The attacks on buses and trains in the two capital cities disrupted the public transport system and slowed down public life. However, in attacking the transportation system it

is not the primary objective of terrorist groups to undermine the country's economy. Terrorists chose to attack the transportation systems in the West for different reasons:

Transportation networks are soft targets, and while the costs and risks of attacks on soft targets are low, the benefits are high. Means of transportation such as buses and trains are public services, and as such are difficult to protect; however, terrorists can secure a safe exit strategy. The nature of the transportation system makes it vulnerable to terrorist attacks; the huge number of buses, trains, and stations, and the large number of people constantly moving in and out, makes the transport system an attractive and easy target for terrorists.

Attack on transport systems are likely to result in mass killing leaving a huge psychological impact by creating a sense of insecurity among citizens who feel that such an attack could happen anywhere and at anytime. For that reason, the transport system will most likely remain a main target for terrorists as such attacks will generate huge pressure on the concerned governments.

Economic jihad is likely to become a significant threat to western societies for three reasons:

- 1) As security measures become tighter and surveillance stronger within European countries, it has to be calculated that terrorists will change their tactics, adapt to the changing security environment, broaden their targeting policy, and shift their emphasis to attacking financial and economic centers in the West.
- 2) Financial and economic institutions, including banks, stock exchange centers, communications networks, oil refineries, electricity grids and other sectors of what are classified as the critical infrastructure network, are located all over the country. Similar to the transportation network, Western security forces face difficulties in protecting this huge financial and economic network because of the relatively large number of economic and critical infrastructure targets, and the relatively easy access to them. Lack of intelligence makes it difficult to assess or predict the time or the manner of the attacks, or assess the risks involved in each attack on the different institutions. Security-wise, it is hard to narrow down the list of potential targets. Further, even if potential targets are specified, security forces have

limited surveillance or protection capabilities, as many of these targets are public places and therefore difficult to protect. Terrorists know about these weaknesses and could exploit them.

The military and political involvement of some western countries in Iraq and Afghanistan increases the risk of a terrorist attack on their soil.

- 3) Terrorists design their targeting policy to correspond with the nature of the political system. While in the authoritarian systems of the Middle East, terrorists directly target political and economic institutions such as government buildings or oil infrastructure to achieve political gains, it is difficult to apply the same tactics in democratic Western societies. Rather than attacking western governments directly, terrorists target societies. As western governments are democratically elected, represent and execute the will of their citizens, terrorists are more likely to choose attacks on soft targets which cause huge casualties. The logic being that public opinion will be influenced and thus force a change in government policies. In the past, terrorists have chosen to attack transportation networks. They could, potentially, also choose economic and financial institutions that possess the same soft target "nature."

The military and political involvement of some western countries in Iraq and Afghanistan increases the risk of a terrorist attack on their soil. Attacks are usually linked to political demands associated with the state's foreign policies, and terrorists are likely to strike when the relationship between government and citizens is at its most vulnerable, when governments are less stable, in times of economic or political crises during elections, or at a time of rising domestic opposition. Terrorists time their attacks for exactly such situations to gain maximum political benefits.

In attacks in Spain and UK, al-Qaeda linked the attack to the demand for troop withdrawal from Iraq. The London attacks coincided with the holding of the G8 summit in Scotland which was supposed to discuss the question of Iraq and combating terrorism. In Spain, the attack occurred three days before the elections, and led to defeat of the Aznar government and the election of the Socialist Opposition leader who announced the

withdrawal of Spanish troops from Iraq. From the perspective of the terrorists, the Madrid train bombings achieved its main political target.

In conclusion, economic jihad could be very effective in undermining the stability and survivability of the state or political regime. But its effectiveness depends on two factors: the nature of the state's economy as well as the intensity and accuracy of the attacks on the state's economic institutions. Rentier states and semi-rentier states such as Saudi Arabia, Yemen and Egypt will be far more vulnerable to economic jihad than states with diversified economies. Terrorist attacks on economic targets in Europe or the United States will likely only create a limited and temporary impact. Most western economies are not dependent on a single source of income or single activity. The large-scale and diversified economic activities in western countries make it almost impossible to rattle economies by striking one or two economic targets. Previous attacks on economic targets even outside Europe such as the attack on the stock market building in Mumbai in 1993 showed the limits of economic damage; the financial loss was minimum, easy to compensate, and investors understood that terrorist acts only have a temporary impact.

Further, economic jihad is likely to be far more effective if coupled with other forms of jihad. The success of the insurgency in Iraq illustrates this fact as economic jihad coupled with political jihad accelerated the country's security crises. Considering the limited capacity and resources of the insurgents and terrorist groups, the change of strategy from political to economic jihad also requires a diversion of resources and capacities. The shift of a group's targeting strategy will have an impact on the group's command and control structure, as it will be difficult to sustain the same level of intensity of operations on both economic and political targets at the same time. The general rule is that the more attacks on targets of an economic nature, the less attacks on targets of a political nature. Therefore, any increase in economic jihad incidents is likely to result in a noticeable decrease in incidents of political jihad.

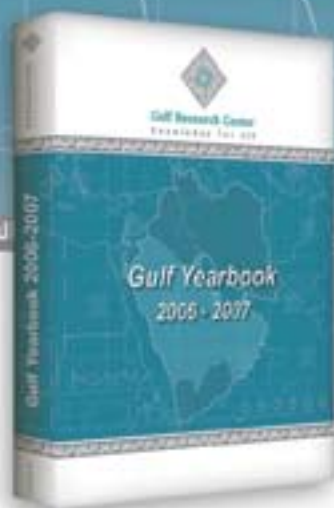
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Risks and Threats Facing Oil Company Operations in Developing Countries: An Overview

Mustafa Alani

The discovery and commercial exploitation of oil in the early 20th century represents a significant development in the contemporary history of mankind. Here was a new and reliable source of energy, offering unlimited potential development for the entire world. However, its ownership and control was dominated by a powerful few. The technical complexity and high financial costs of extraction, as well as a worldwide marketing policy, led to the emergence of a small number of oil companies, mostly based in industrial nations in Europe and North America. This small number of oil giants, supported by the political and military muscle of their home countries, was able to dominate the world oil industry for the most part of the 20th century by controlling the largest share of oil concessions around the world. Along with their rapid growth in size and power, international oil companies were also growing a negative image, especially those operating in a number of developing countries, such as those in the Middle East. Whether justified or not, this image generated a certain level of popular resentment to the point where, over the past few decades international oil companies have come to represent the 'enemy of the masses.' With the recent rise in the number and activities of liberation movements, opposition movements and insurgent groups, international oil companies have become a 'justifiable target' for punishment and revenge.

Negative Perceptions

The negative image associated with international oil companies can be attributed to a number of factors:

1. Since the early part of the 20th century, major oil companies have had a colonialist and imperialist image. This emanated from the belief that oil companies were acting as a state within a state, with no regard or respect for a state's sovereignty or independence.
2. The oil companies were perceived to be bent on plundering and looting the wealth of the nation, disregarding the interests of the country and the long-term well-being of the community.
3. Oil companies had the image of being extremely rich financially and focused on securing a maximum profit margin and accumulating more wealth.
4. Oil companies were seen as being politically linked to foreign governments and serving their political and strategic objectives, and as such being involved in conspiracy against the host state.
5. They were thought to be actively involved in promoting corruption in the society and its political leadership.
6. They were alleged to have created an elitist class within the society that tied its interests to the interests of the company.
7. The oil companies were thought to be propping up unpopular regimes/governments and working in cahoots with them.

Security Threats

Due to the value of oil as the main source of energy in the world economy, its importance to industrial nations, and also the global nature of oil companies, the perception in certain quarters is that punishing oil companies has wider implications, far beyond the borders of a state.

As such, oil company operations in most states are likely to face two kinds of security threats: physical and political. The term 'physical security' is used to describe the potential damage and threat facing a company's employees, equipment, facilities, field operations and assets. 'Political security' is a term used to describe the potential threat posed by political developments to the company's rights, privileges and freedom of operation in the host state, as well as the ultimate threat to the security of the company's contracts and agreements.

Physical Security

Due to the nature of an oil company's activities and the level of its engagement during exploration or production stages, there is usually a substantial physical presence of a foreign oil company in an oil state. Physical threat to the company's operations and assets could thus materialize in a number of forms:

I. The security of an oil company's personnel could be threatened by:

A. Kidnapping of staff by a political group: Hostages could be taken by political or terrorist groups to secure one or more of the following:

- Political demand from the state
- Political demand from the company's 'home state'
- Non-financial demands from the company (related to demands on, labor rights, land rights issues and tribal territorial disputes, environmental demands)
- Financial demands from the company: Ransom to finance the political-terrorist group's activities
- Obtain information and intelligence about the company, or the company's dealing with the government, or on the country's oil sector.
- As a bargaining chip to seek the exchange or release of detainees or political prisoners.

B. Kidnapping of staff by a criminal group: Hostages could be taken by organized criminal groups or by ad hoc criminals to:

- Secure financial gain: the oil companies are seen as financially rich and willing and able to pay a high ransom
- To be 'sold' to terrorist groups
- To generate pressure on local government or law-enforcement authorities
- To be used in negotiating deals with the authorities for the exchange or release of detainees or prisoners.

C. Attacks

- Attacks on field workers (exploration/extraction team)
- Assassination of key officials and senior technical staff
- Ambush of oil worker convoys or worker gathering points
- Attacks on oil protection forces

- Attacks on logistic contractors or sub-contractors (provider of services, suppliers of basic provisions and so on).

II. Threats to oil company assets/equipment

The company's assets and equipment could be subject to a number of risks in the field or in transit, such as:

- Deliberate loss or damage during shipment, storage, or transfer to locations (due to corruption, extortion etc.)
- Intentional damage and sabotage of equipment by political or insurgent groups
- Theft or confiscation of assets/equipment for re-sale or extortions.

III. Threats to oil company premises

- Attacks on company administrative offices
- Attacks on company warehouses and depots
- Attacks on company headquarters (as a high value publicity target)
- Attacks on company camps and operation sites
- Attacks on housing complexes and recreation centers.

IV. Risks to downstream/upstream operations

Downstream and upstream operations could be subjected to different forms of threats such as attacks, sabotage, and arson. The following oil infrastructures could be targeted:

- Oil fields and oil wells
- Storage tanks
- Pipelines, pumping stations
- Export platforms and oil ports
- Oil refineries and oil depots
- Fuel stations and other marketing outlets

Political Security

A second type of threat oil companies face relates to contracts and agreements. The risks posed by unpredictable political and security developments lay beyond the control of the companies. While an oil company can invest in the enhancement of physical security measures to minimize the risks of physical threat, its ability to control political threat is limited. Political threat to oil concession agreements or to the company's operations could

materialize in a number of scenarios, among them:

1. Change in the security or political environment in the country. This may be due to a collapse in the security situation or central government's control or authority, outbreak of civil war, threats posed by separatist movements to the company's concessions area, disintegration of the state and so on.
2. Change of state leadership or change in the decision-making structure. This may happen because of an election, constitutional or unconstitutional change of leadership, or a military takeover.
3. Forced annulment or amendment of the oil law/agreement and other related legislations. When oil companies invest in states that have controversial or disputed oil legislation, the company will take a risk that such legislation will not survive the political pressure and adversity within the internal political arena. Internal disagreements over oil legislations represents a potentially high- risk situation as the oil company could be drawn into the states' internal political conflict, and eventually lose its right of operation in that state.

As oil laws are highly sensitive pieces of legislation, especially in countries where oil revenues represent the state's main source of income, the oil investment law may have the necessary legal requirements such as the head of state's endorsement, cabinet backing and even parliamentary approval, but will be perceived by certain segments of the society or by certain political forces as 'illegitimate' law. To avoid this kind of threat, the oil company should not rush to invest in politically unstable states that are enacting controversial oil investment laws. To illustrate this scenario, one Iraqi politician described the draft new Iraqi oil law, which has already received cabinet approval, as 'legal but not legitimate.' Under the cloud of political and security uncertainty, many oil companies try to adopt the "foot-in-the-door" strategy. This could help companies deal with the ambiguity surrounding future political developments and the possible change in the security environment in certain oil states.

"Foot-in-the-door" Strategy

The foot-in-the-door strategy is practiced by a number of major oil companies in their dealing with 'troubled' oil countries as a means to minimize risk. The implementation of this strategy costs little money, but could produce a significant gain. The

present policies of oil companies towards Iraq and Iran are a good example of this strategy. Sometimes, the major oil companies are either unable or unwilling to actually invest, or legally commit themselves, to invest in certain oil states. In the case of Iran, the US and international sanctions and restrictions represent the main obstacle to investment, while in the Iraqi case international sanctions in the past, and security problems along with the unavailability of legal framework for foreign investment are the major concerns preventing oil companies from investing in the country.

The implementation of the "Foot-in-the-door" strategy costs little money, but could produce a significant gain.

At the same time major oil companies understand that there would be keen competition among oil companies when political and security circumstances in these states change and investment becomes possible.

The objectives of the foot-in-the-door strategy are two-fold:

1. To establish relations with the concerned government and secure actual presence in the state, which would help the company to gather political information and contacts, and possibly technical data. This would then secure a head start for the company in any future bidding.
2. By seriously engaging the concerned government the company aims at blocking the way of other companies and interested parties. Showing strong interest coupled with some sort of permanent presence on the ground could discourage other potential competitors and interested parties from targeting the state. The psychological objective of this strategy is to send other competitors or rival companies a signal indicating that the targeted state is already secured.

The foot-in-the-door strategy could be implemented through a series of actions:

- The oil company expresses interest in investing in the country's oil sector.
- The company translates this interest into action by opening channels of communication with the concerned

government and expressing interest in investing in the country's oil sector.

- The company then commissions consultancies that could involve prominent political or oil personalities, or sends a local representative to be based in the targeted country, and opens an office in the concerned state or in neighboring states. The main objective of this effort is to build contacts and gather intelligence.
- Oil companies, as a goodwill gesture, show their willingness to help in offering short courses to educate and train oil personnel, engineers, and technicians from the targeted state, in the hope of establishing contacts and personal relations with different levels of the targeted state's oil sector.
- The oil company uses media, local or international, to signal its interest and involvement in the targeted state.
- The company could open the door for preliminary talks with the concerned government.
- Short of signing an agreement, the oil company takes a calculated risk and signs a memorandum of understanding (MoU) with the concerned government, which contains loose and generalized assurances and has no clear or binding obligations.

During the 1960s and 1970s the major threat facing foreign or international oil companies operating in the developing countries came from the behavior/attitude of states or regimes. The wave of revolutionary and ultra-nationalist regimes which

dominated the political scene in the Middle East and other oil-producing regions in Asia, Africa, and Latin America placed foreign oil companies on the 'enemy's list' and they were treated as such. Nationalization of foreign oil companies' assets and concessions was common during that time. However, while the political threat to oil contracts and agreements was on the rise, physical threats were limited. Kidnapping or killing of oil companies' staff was almost unknown, likewise attacks on company assets.

With the growing phenomenon of terrorism in recent years, the physical threat to international oil company operations has clearly risen.

With the growing phenomenon of terrorism in recent years, the physical threat to international oil company operations has clearly risen, so much so that international oil companies operating in certain developing states now allocate a sizable part of their budget to provide protection for their personnel and assets. Providing security and protection to their staff and assets will remain a major challenge for international oil companies in the foreseeable future.

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Insurgent Attacks on Iraq's Oil Sector

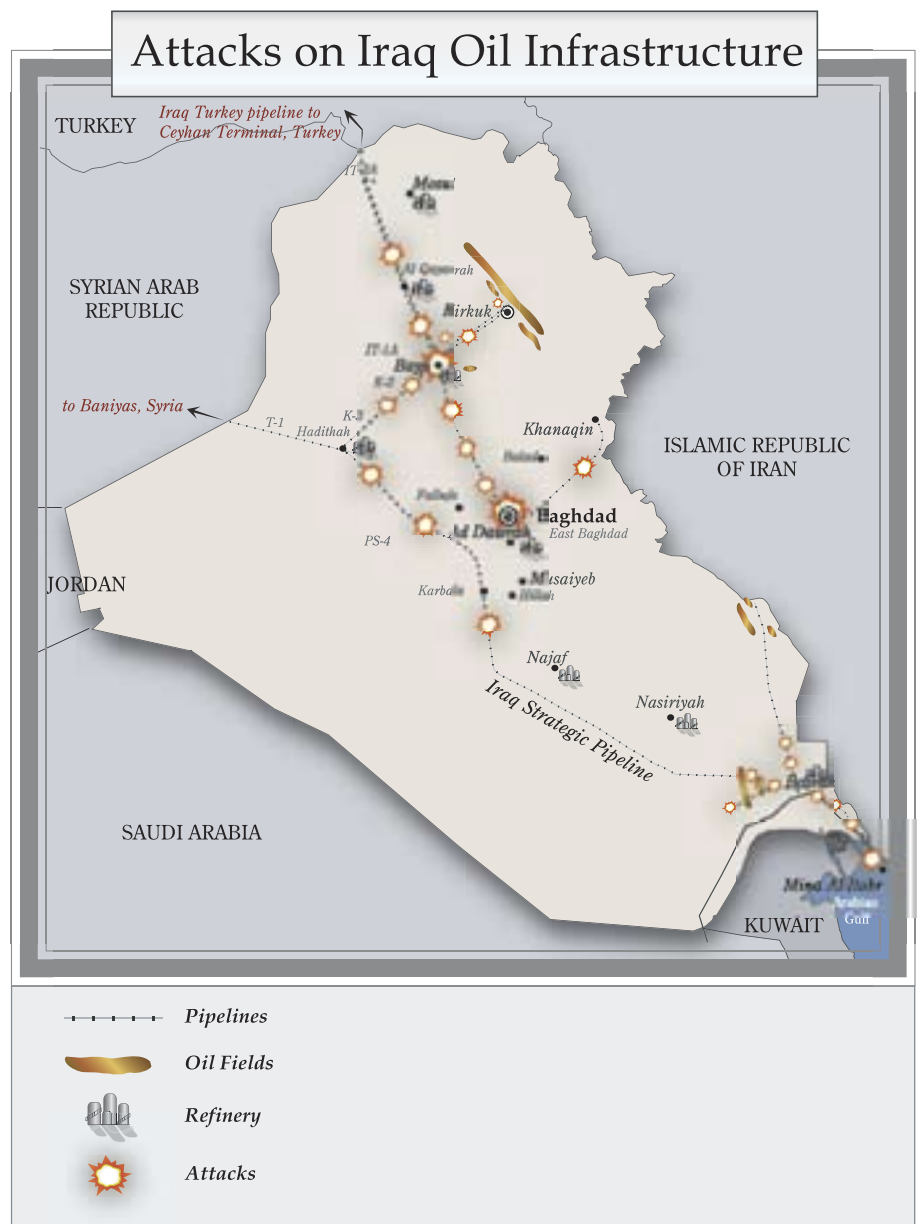
Mustafa Alani and Nicole Stracke

Iraq's oil sector has been a target for insurgent activity almost since the beginning of the US occupation in May 2003. The first recorded attack took place in mid-June 2003, merely two months after the occupation of Baghdad. Since then, attacks on oil installations have spread throughout the country.

Insurgent attacks against Iraq's oil industry have been remarkably effective. Within a relatively short period, operations by different insurgent groups were able to inflict huge damage, rendering many sectors partially or totally non-operational. Production, refining, distribution and export of oil have all been affected or suspended for long periods of time.

Counter measures to prevent or reduce the number and the effectiveness of the attacks have had limited and short-lived success. Increasing physical and electronic security measures around oil installations have resulted in only a modest reduction in the number of attacks against them. The re-establishment of the police and paramilitary oil protection units was a major attempt to boost security, but the effectiveness of these specialized forces has been undermined by the insurgents' strategy to put the forces under pressure by constantly targeting their members and killing them on and off duty. The insurgents have also been able to infiltrate the oil protection special forces and obtain vital intelligence about oil targets. In February 2006, for example, Iraqi security forces arrested an unknown number of oil protection

forces who were responsible for providing security to the oil infrastructure in the Kirkuk area. The guards were accused of helping insurgents who were trying to destroy the Baghdad-Bayji-Kirkuk oil pipelines.



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Key Findings

1. Attacks on the oil industry are an integral part of the overall resistance strategy designed to achieve the ultimate objectives of the Iraqi insurgent groups.
2. It is an integrated and sustained strategy, which is constantly modified to suit the needs of and changes in the security and political environment.
3. The targeting strategy is comprehensive in its geographical coverage. Operations against targets related to the oil industry have been conducted in the northern region of the country as well as in the southern region.
4. In terms of operational tactics insurgents employ comprehensive means of attack that include explosive devices (all kinds); mortars, rocket-propelled grenades (RPG) and machine guns; Katyusha type rockets; suicide bombing; and ambush on installations and staff.

Targeting Policy

The targeting strategy is comprehensive in its geographical coverage. Operations against targets related to the oil industry have been conducted in the northern region of the country as well as in the southern region. Thus no part of the country is safe from or out of reach of the insurgents. Initially, attacks on oil sector installations in the northern region and Baghdad area far exceeded attacks in the southern region. During the first year of the occupation, insurgent attacks against the oil sector were almost exclusively directed against oil infrastructure located in the northern region of the country; there were a few attacks around the Baghdad area. However, since the first

attack on the southern pipeline in late February 2004, operations have become widespread, extending to most parts of the country.

The targeting strategy is comprehensive in its nature encompassing attacks almost on every segment of the Iraqi oil industry infrastructure including:

- Oil wells
- Storage tanks and facilities
- Pumping stations
- The entire oil and gas pipeline network
- Main refineries
- Oil products transportation network: oil trucks, tanker trains
- Oil export facilities: ports and platforms
- Product outlets: petrol and gas stations
- Petrochemical factories
- Administration sites (including the headquarters of the Iraqi Oil Ministry and the regional headquarters of the Iraqi National Oil Company)
- Oil industry personnel (all levels).

1. Attacks on pipeline network

The oil and gas pipeline network, the most vulnerable and widely spread part of Iraq's oil infrastructure, was the obvious first choice for insurgents' 'oil' operations. Among the nearly 40 recorded attacks carried out during 2003, 75 percent were directed against the oil or gas pipeline networks. Indeed, attacks on oil pipeline networks constitute the most common

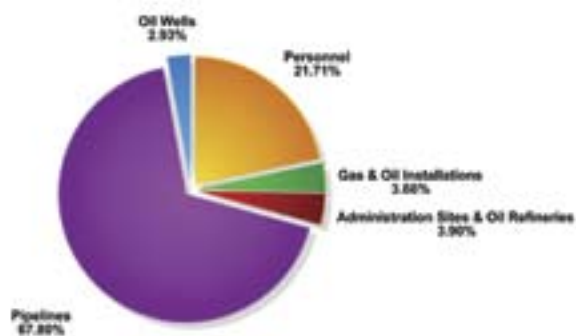
form of attack; over 280 attacks or sabotage operations have been carried out between mid-2003 and 2007.

The operational tactic is two-fold: first, attacks are aimed at the destruction or disabling of the pipeline network; and second, attacks are designed to prevent the repair or restoration of the network. To achieve this goal, insurgents attack the same section of the pipeline repeatedly, and almost immediately after repair work is completed, to show that repairing the pipelines is a hopeless task. At the same time, repair teams are frequently subjected to attacks.

Source: GRC

Attacks on Iraqi Oil Comparison

2003 -2007



The first attack on oil infrastructure targeted the international section of the pipeline network that carries oil to Turkey's port, Ceyhan. Following repeated attacks on this section of the strategic pipeline, the Iraq-Turkey pipeline was declared non-operational within a few months, and exporting oil through Turkish ports was halted costing the Iraqi government over \$8 billion in lost revenue.

2. Attacks on oil sector personnel

Since the first attack on oil sector personnel in November 2003, when a group of gunmen tried to assassinate the manager of an oil distribution company, insurgent activity against oil sector personnel has grown rapidly. Almost 90 attacks have been carried out on oil sector personnel since mid-2003 and staff has been subjected to kidnapping, assassination, ambush and constant threat and intimidation. As a result of insurgents' activities, Iraq's oil sector has lost between 10-15 percent of its work force.

Targets are now categorized into two groups: first, the civilian staff including the top management, engineers and technical staff, workers, and contractors besides the entire work force of the oil ministry. The Iraqi Minister of Oil has been targeted in a number of assassination attempts and there have been attacks aimed at the directors of the regional oil companies and

heads of the oil ministry's departments. The second category is the security forces (police and army units) which provide protection for oil infrastructure. This includes the members of the two police and paramilitary protection forces 'The Oil Protection Forces' and 'The Strategic Infrastructure Brigade.' Both units have been subjected to constant attacks, including a number of suicide attacks.

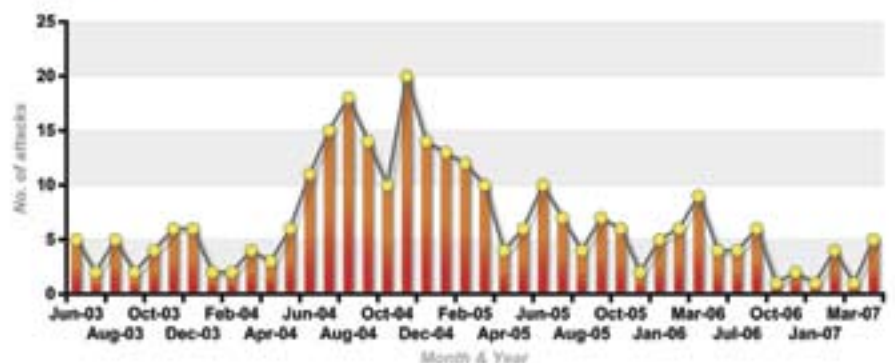
3. Attacks on key oil installations and administration

Almost every key installation, including oil wells, storage tanks, pumping stations, gas and oil plants, oil ports and export platforms, refineries, and other critical facilities has been targeted. The country's oil refineries, located mainly in the

Source: GRC

Attacks on Iraqi Oil

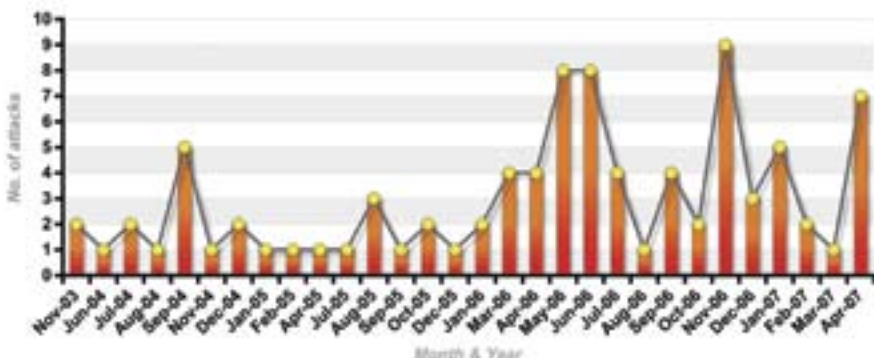
On Pipelines



Source: GRC

Attacks on Iraqi Oil

On Personnel



northern and central regions are among the main targets. The first attack on the vital Baiji refinery took place in June 2003. Continued attacks on these installations, and on the oil pipeline networks that feed the refineries with crude oil, have greatly reduced the country's refining capacity.

Attacks on and destruction of oil wells in both northern and southern oil production regions have become frequent since the first attack at Khabaz oil field, west of Kirkuk, in March 2004. Oil wells of the northern region have suffered more attacks and damage compared to the oil wells in the southern region.

Oil administration sites are also frequently targeted. The headquarters of the Ministry of Oil in Baghdad has been subjected to frequent attacks by car bombs and mortar shells, as have the offices of the regional oil companies in other parts of the country.

4. Attacks on oil transportation

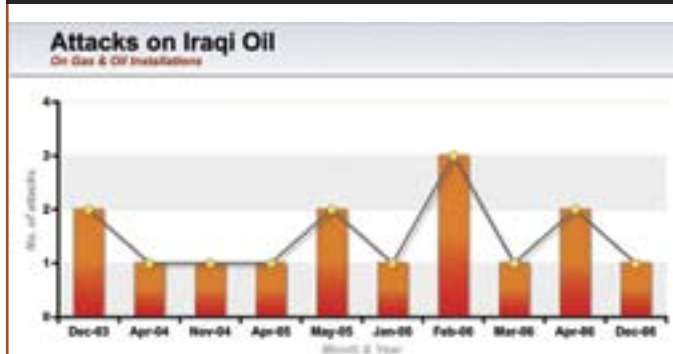
Attacks on oil transport, mainly trucks and road tankers, and even trains carrying oil products, are widely carried out with a number of objectives. Oil trucks supplying the occupation forces with fuel are a major target. In one single attack during January 2006, the insurgents destroyed 20 fuel tankers heading from Bayji refinery to Baghdad. Indeed, oil tankers are a target not only for destruction but also for hijacking. Most of the hijacking operations of fuel tankers also involve the killing of the driver and his crew. The reason behind hijacking of oil tankers is clear: road tankers are widely used as an effective instrument in suicide bombing operations. The capacity of these trucks to carry a huge amount of all kinds of explosives (solid, liquid explosives or chemicals) makes them a favorite weapon for insurgent and terrorist groups. Countless attacks on major targets, especially large buildings, are carried out by using an oil tanker filled with explosives and driven at high speed toward the target.

The Iraqi oil sector has suffered more than 400 attacks since mid-2003 to early 2007, and attacks against the oil infrastructure are likely to continue in the foreseeable future. The frequency of the attacks varies from one month to another, and this variation is mostly related to developments in the security and political situation in the country. The highest number of attacks was recorded in November 2004 when at least 30 attacks were made against the Iraqi oil sector, an average of one attack a day. The lowest number of attacks was recorded during August 2006 when only one attack was reported.

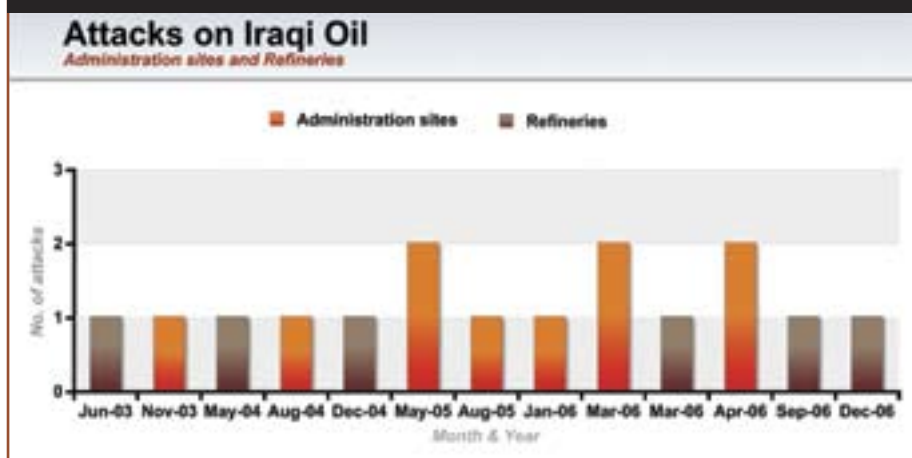
The security of the oil sector is dependent on the overall security and stability of the state. Security for the oil sector cannot be guaranteed in isolation from the improvement of the security environment of the state just as it cannot be seen in

isolation from the negative political environment prevailing in the country since the US invasion. Attacks on Iraqi oil installations have been justified through a number of arguments, most if not all, linked to the insurgents' central issue of the "right and duty" of resisting the country's occupation. Indeed, before 2003 and even during the country's deepest political and security crises – the Iraq-Iran war 1980 - 1988 , the Iraqi invasion of Kuwait 1990, and the 1991 war (Desert Storm), the oil sector remained relatively safe from attack or sabotage. However, as a result of the US invasion, attacking oil infrastructure has become pivotal in the resistance movement strategy. As oil represents the heart of the state's economic activities, it is unlikely that attacks on the oil sector will stop even after the withdrawal of US forces from the country. The insurgents' objective is to deprive the post-occupation Iraqi government from securing any benefit from exporting oil to the international market, and to interfere with the government's ability to supply or meet the domestic demands for oil products.

Source: GRC



Source: GRC





Saudi Arabia: Power, Legitimacy and Survival

By Tim Niblock

“Saudi Arabia: Power, Legitimacy and Survival” gives the reader a comprehensive understanding of the contemporary trends in Saudi politics, society, economy and international relations. It is a valuable source for those who are interested in a balanced understanding of Saudi Arabia and its vital role in the Middle East and global developments. The evolution of the Saudi state occurred over three main stages: the formation stage, which ended by 1962, was followed by the transformation of the state into a powerful centralized polity with a capable administrative machinery and the intensification of economic development during the period 1962-1979. The third stage, which started in 1979 and extends up to the present time, witnessed the redirection of the new polity. The author tackles the main challenges currently facing the Saudi state. He gives special attention to problems faced in the fields of foreign policy and the economy, and the critical role of Saudi Arabia on issues of radical Islamism and its struggle with international terrorism and al-Qaeda since the Soviet invasion of Afghanistan in the 1980s through the events of September 11, 2001, and the US-led war on Iraq in 2003.

Language: Arabic



Squandered Victory: The American Occupation and the Bungled Effort to Bring Democracy to Iraq

By Larry Diamond

In the fall of 2003, Stanford Professor Larry Diamond received a call from Condoleezza Rice, asking if he would spend several months in Baghdad as an adviser to the American occupation authorities. Diamond had not been a supporter of the war in Iraq, but he felt that the task of building a viable democracy was a worthy goal now that Saddam Hussein's regime had been overthrown. He also thought he could do some good by putting his academic expertise to work in the real world. So in January 2004 he went to Iraq, and the next three months proved to be more of an education than he bargained for.

Diamond found himself part of one of the most audacious undertakings of our time. In *Squandered Victory* he shows how the American effort to establish democracy in Iraq was hampered not only by insurgents and terrorists but also by a long chain of miscalculations, missed opportunities, and acts of ideological blindness that helped assure that the transition to independence would be neither peaceful nor entirely democratic. He brings us inside the Green Zone, into a world where ideals were often trumped by power politics and where U.S. officials routinely issued edicts that later had to be squared (at great cost) with Iraqi realities.

Language: Arabic



Narcotics and Human Trafficking to the GCC States

By Faryal Leghari

The geo-strategic location of the GCC States at the crossroads of Asia, Europe and Africa, though advantageous in many ways, exposes them to several disadvantages as well. These states are particularly vulnerable to organized crime syndicates that monopolize narcotics and human trafficking operations, the second and third largest organized crime activities after arms smuggling. The Gulf States are being used as the main transit zone for Afghan narcotics being smuggled to the West and are facing an increasing domestic drug abuse problem. In addition to this, the GCC region is exposed to the growing threat of human trafficking which affects an estimated 700,000-2,000,000 people per year as they are trafficked across state boundaries.

There is a misconception that human trafficking is restricted to helpless women and children, but even men are subjected to it. Akin to modern day slavery, human trafficking also includes forced labor and sexual exploitation. Existing counter-trafficking measures, both regional and global, have several shortcomings. In view of the serious security threats posed by narcotics and human trafficking, the GCC states have taken significant measures which are expected to act as an effective deterrent. This study reviews both human and narcotics trafficking in the GCC, and assesses the measures taken at the state and regional levels. It is imperative for the leadership in these states to grasp the extent of this crisis and plan for the negative fallout they are likely to face. The GCC States need to chalk out a strategy at the regional level to address the resulting security implications.

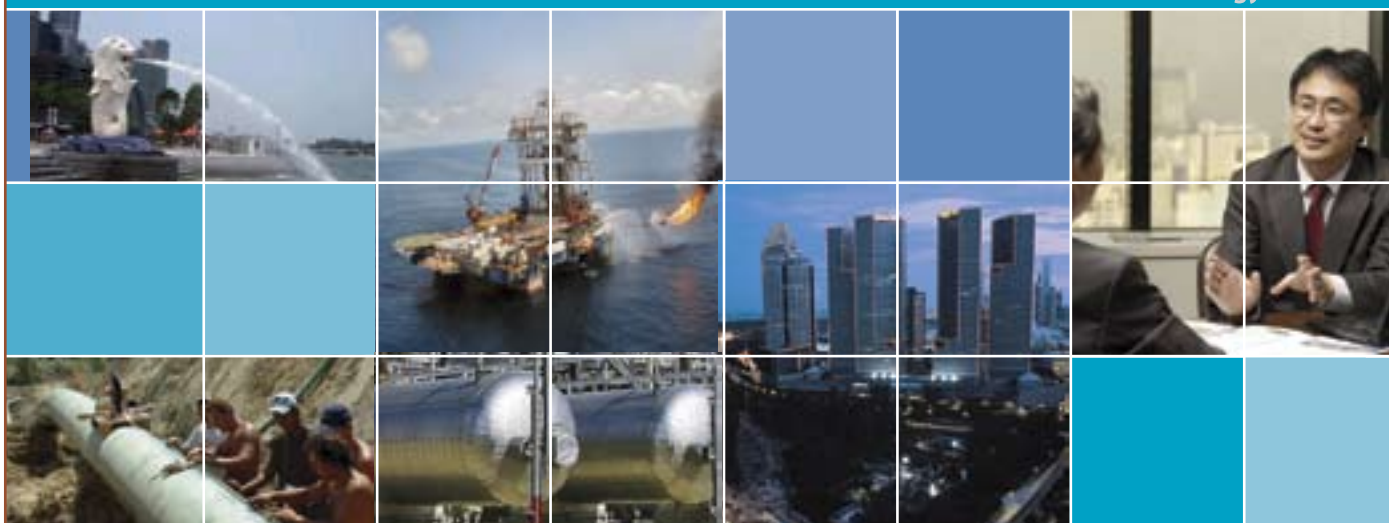
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