IRAN-PAKISTAN-INDIA CROSS-BORDER GAS PIPELINE-

Legal and Geo-Political Aspects

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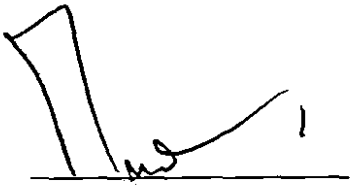

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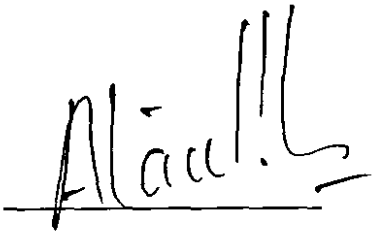

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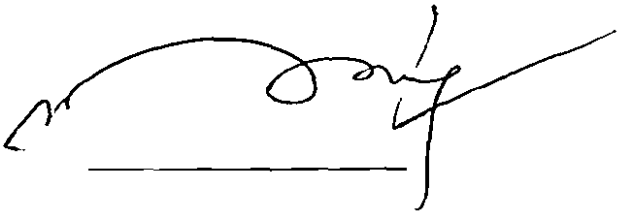

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ABSTRACT

1. Pakistan and India would certainly require the proposed IPI (Iran-Pakistan-India) cross-border gas pipeline project for the import of gas due to the reasons given below.

    - Both Pakistan and India are the energy deficit countries. Pakistan's domestic gas supply is expected to shortfall by the year 2010 which would necessitate finding of the alternative supplies of gas to meet its pressing demand in the near future. India also faces acute shortage of energy as well and its gas demand will almost double by the year 2025.

    - There is sharp decline in the existing proven reserves of both the countries which will force them to import increasing amounts of gas.

    - It seems that there is no other practically viable and economical gas import option is available. IPI project being a land based pipeline would be much cheaper than any other option, even after taking into account transit fee payment to Pakistan.

2. Like other cross-border pipelines, the proposed IPI pipeline project also faces numerous geo-political, economic, legal and regulatory problems due to involvement of different states with different interests. Based upon the big size of the IPI project, the number of stakeholders involved and the territory covered, this project faces a large number of diplomatic risks and hurdles. Additionally, the United States and European Union are the staunch opponents of this project. They proved to be probably the biggest hurdle so far. U.S has launched efforts diplomatic and otherwise to freeze this project in its tracks. Geo-political and legal aspects of any cross-border pipelines are considered to be very important. These perceived risks may increase the cost of finance, which may seriously impact the delivered cost of the gas. All this has serious consequences for the producers and consumers of gas at both the end of the pipelines.

3. First of all we have to identify consequences and factors which may cause potential conflicts and problems for the construction and operation of cross-border pipelines projects. Essentially the cross-border pipelines have three relevant dimensions: use of pipeline, the use of cross-border trade and may involve the use of transit and each has different consequences. Cross-border pipelines have their own features, each of which may be associated with certain consequences due to following:

    (a) Different parties with different interests are involved in the pipeline project;
    (b) There is no overruling jurisdiction to police and regulate activities and contracts;
    (c) The project attracts profit and rent to be shared between the various parties.

4. From international legal perspective, two types of models are used for the construction and operation of cross-border pipeline projects, the 'integrated model' and 'segmental model'. Pakistan supports the construction of IPI pipeline project on segmental basis.

5. The purpose of this study is to see whether in the presence of political differences in the region and in absence of an adequate legal framework in Pakistan, can the business of supplying natural gas through pipelines traversing multiple countries could be successful? Also to seek ways and means through which such conflicts and problems can be mitigated or prevented. This study essentially focuses on the existing international legal instruments and treaties applicable to the cross-border energy trade and in particular focuses on the role of the Energy Charter Treaty (ECT) and Inter-Government Agreements (IGA) and Host Government Agreements (HGA).

6. During the course of this study a number of international legal instruments have been analyzed, and this study demonstrates that ECT is a unique multilateral instrument which establishes a necessary general legal framework in order to promote long-term cooperation in the energy field. ECT also endorses the use of IGA and HGA models which provide a balanced set of recommendation and can be used by the participating governments at the time of negotiations on IPI gas pipeline project.

7. The IGA is an agreement signed between two or more host countries and HGA between host countries and project sponsors/project company. IGA is considered a high level agreement, which incorporates the HGAs and other project agreements by reference. IGAs are usually treaties under local and international law and ratified or enacted into domestic law accordingly. HGA may be an agreement which is enforceable as a contract under the relevant law and may be ratified or otherwise enacted as part of the host country's domestic law applicable to the project.

8. A legal framework which is required with respect to any cross-border pipeline project will have the following contractual relationships;

   (a) The country to country relationship;
   (b) The country/pipeline company relationship;
   (c) The pipeline consortium relationship; and
   (d) The pipeline company/commercial contractors' relationship.

9. This study concludes that apart from United States opposition, all other potential risks, problems and conflicts associated with the project could be mitigated by properly identifying and addressing them in the IGA package. Additionally, the ratification of ECT by the participating states would be of considerable value and encourage confidence building. Not only it may provide comfort to the contracting states, but also re-assurance to investors who would surely be involved in this project.

Table of Contents

TABLE OF ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
ASEAN	Association of South East Asian Nations
BCM	Billion Cubic Meters
BCF	Billion Cubic Feet
BCFD	Billion Cubic Feet per day
BOOT	Build Own Operate and Transfer
CPC	Caspian Pipeline Consortium
CNG	Compressed Natural Gas
DTP	Draft Transit Protocol
ECT	Energy Charter Treaty
ECC	Economic Coordination Committee of Pakistan
EU	European Union
EMP	Energy Material and Products
ETF	Energy Transport Facilities
GATT	General Agreement on Tariffs and Trade
GOP	Government of Pakistan
HGA	Host Government Agreement
HSE	Health, Safety, and Environment
ICSID	International Center for Settlement of Investment Disputes
IEA	International Energy Agency
IGA	Intergovernmental Agreements
IPC	Iraq Petroleum Company
IPI	Iran-Pakistan-India
INOGATE	Interstate Oil and Gas Transport to Europe
ISGSL	Inter-State Gas Systems (Private) Limited
LCIA	London Court of International Arbitration
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LLS	Land-Locked State
MEGP	Maghrab-Europe Gas Pipeline
MTA	Model Transportation Agreement
MBTU	Million British Thermal Units
MOU	Memorandum of Understanding
OGRA	Oil and Gas Regulatory Authority
OECD	Organization for Economic Cooperation and Development
PSA	Production Sharing Agreement

PipeCo.	Pipeline Company
PKK	Turkey Kurdistan Workers Party
TAGP	Trans-ASEAN Gas Pipeline
TAP	Turkmenistan-Afghanistan-Pakistan
TAPI	Turkmenistan-Afghanistan-Pakistan-India
TCF	Trillion Cubic Feet
TMM	Malaysia-Thailand Joint Development Area Pipeline Project
UAE	United Arab Emirates
U.K.	United Kingdom of Great Britain and Northern Ireland
UN	United Nations
U.S.A	United States of America
UNCTAD	UN Conference on Trade and Development
UNCLOSS	United Nations Convention on the Law of the Sea
UA	Umbrella Agreement
UNICITRAL	UN Commission on International Trade Law
WTO	World Trade Organization

In the name of Almighty Allah the most beneficent the most merciful

IRAN-PAKISTAN-INDIA CROSS-BORDER GAS PIPELINE
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CHAPTER-I

INTRODUCTION

Pakistan's domestic supply of gas is expected to shortfall by the year 2010[1] and there is pressing need to find alternative supplies of hydrocarbons. According to some sources the gas supply gap in 2011 will reach 500 million standard cubic feet per day growing to about 2 billion cubic feet per day in the next 5-10 years. The need for natural gas is more impressive than ever, the gas supply in Pakistan is currently 4 billion cubic feet per day which is expected to increase by 50% in the next five to seven years. Pakistan has one of the world's fastest growing populations and its demand for gas will expand significantly over the next two decades.[2] However, some of this increase would be met through an increase in domestic gas production. Gas production in Pakistan is expected to increase as new fields like Manzalai, Makori and Latif etc. come on stream. However, the longer-term outlook would justify significant imports of gas by Pakistan where proven natural gas reserves are low and energy demand exceeds energy supply. Since India is also party to the proposed IPI gas pipeline project, which faces acute shortage of energy as well. India's gas demand will almost double by 2025,[3] and due to sharp decline of its reserves it will be forced to import increasing amounts of gas. Lon-terms projection indicate that

[1] Pakistan oil & gas conference 2004- Are Regional Gas Pipelines Possible?
[2] Setback to pipeline plans: by Gal Luft, an article published in Asia Times on Jan 15, 2005
[3] IPCS Research Paper by David Temple on IPI project...available at www.ipcs.org/IPCS-Research Paper - 8-David Temple.pdf

the demand for gas in India is likely to go up from the present 74 to about 322 million cubic meters per day the year 2025, necessitating large-scale imports.[4]

Keeping in view the upcoming energy deficit in near future, Pakistan has started examining many gas import options during the past decade but none of them has made it beyond the drawing board. Luckily Pakistan occupies a strategic position on the globe, neighboring the oil and gas rich gulf and central Asian states. Hence import of both oil and gas via pipelines become feasible. From the careful study in the past, three options have cropped up as practically potential viable solution to the ever increasing energy deficit in the country. These options are as follows:

- Turkmenistan- Afghanistan-Pakistan-India Gas Pipeline (TAPI).
- Qatar- Pakistan (Offshore) Gas Pipeline.
- Iran-Pakistan-India Gas Pipeline (IPI).[5]

Although, Government of Pakistan has expressed its desire to enter into these transnational pipelines projects, it is unclear, from a legal standpoint, whether Pakistan has the necessary legal framework in place to support projects of this scale.

This study is designed to provide an overview on above stated first two gas import options being considered by the Government of Pakistan through cross-border pipelines from Turkmenistan and Qatar, however the third option: IPI would be focused and

[4] *Ibid*
[5] ADB asks Pakistan for finalizing gas import pipeline project-Article published in Pakistan Time-Bubiness on April 9, 2005

analyzed in detail along with its feasibility and broad legal, geopolitical, economic, environmental issued involved in the light of international legal instruments and model agreements.

1.1 An Overview of Proposed TAPI Gas Pipeline:

TAPI a multi-billion pipeline project from Turkmenistan to India via Afghanistan and Pakistan has received a major boost after the Asian Development Bank (ADB) declared it in 2005. This is 1,680 km long pipeline which will run from the Dauletabad gas field in Turkmenistan to Afghanistan and from there TAPI pipeline will be constructed alongside the highway running from Heart to Kandahar, and then via Quetta and Multan in Pakistan[6]. The final destination of this pipeline project will be the Indian town of Fazilka, near the boarder between Pakistan and India. This proposed project would cost round about $4 billion and for the Pakistan segment the estimated cost of the project is around $ 2.9 billion.[7]

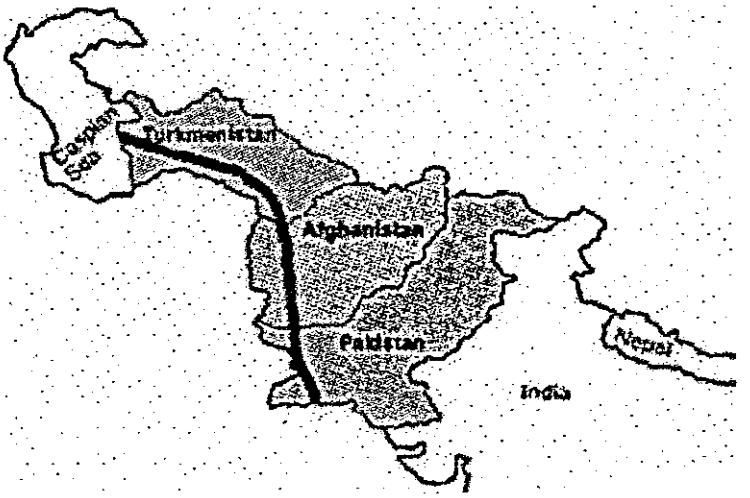
The TAPI project earlier did not have India as partner, but with a pro-U.S. office in Afghanistan and improved Indo-Pak relations, the TAP project is now become TAPI. This project appears to be the most risky, in terms of risks, as it involves two volatile transit countries-Afghanistan and Pakistan.[8]

[6] TAPI gas pipeline finalized-an article published in The News International on April 25, 2008
[7] Energy_Resources dated 24/10/2007/India to join TAP gas pipeline next month
[8] The Hindu-online edition of India's National Newspaper-Monday 08, 2006

Map: Proposed Turkmenistan-Afghanistan-Pakistan-India (TAPI) Gas Pipeline.

The Afghan government is expected to receive 8% of the project's revenue. The 1,680 km TAPI pipeline of 56-inch diameter needs at least 30 BCM of gas per year from Turkmenistan to Pakistan via Afghanistan. Six compressor stations are to be constructed along the pipeline. The pipeline is expected to be operated by 2014.

This proposed pipeline, originating in Turkmenistan's Dauletabad field, will meet Pakistan's growing energy needs with Afghanistan getting the transit revenue. The proposed pipeline will travel nearly 500 km through Afghanistan.



Map: The Turkmenistan – Afghanistan - Pakistan Pipeline (one possible route)

1.1.1 Progress on the project:

The government of Turkmenistan floated the idea of a gas pipeline from Turkmenistan to Pakistan in 1991. Different MOUs were executed during the last one and half decades but no visible progress could take place due to instability in Afghanistan. During the trilateral Summit held between the Heads of states of Pakistan, Turkmenistan and Afghanistan from May 29-30, 2002, an agreement was signed.[9] The agreement provides for the formation of a Steering Committee represented by the respective Petroleum Ministers of three countries to over-see the progress on the project periodically. About nine meetings of the Committee have been held so far. A Gas Framework Agreement for the TAPI project was signed by the heads of states in a trilateral Summit held in Ashgabat on December 27, 2002. Since the United States military overthrew the Taliban government, the project has essentially stalled; construction of the Turkmen part was supposed to start

[9] Asian Bank report on Technical Assistance for the TAP natural gas pipeline (Phase-II_ dec. 2003

in 2006, but the overall feasibility is questionable since the southern part of the Afghan section runs through territory which continues to be under *de facto* control of Taliban.[10]

ADB has provided financial assistance to the tune of U.S $ 1.00 million for the feasibility study of the TAPI project.[11] The feasibility study has been submitted. ADB is actively participating in this project as lead partner and coordinating and providing necessary assistance to expedite the construction of the project.[12] In 2005, the ADB submitted the final version of a feasibility study designed by British company Penspen.

This project would be feasible only if it guaranteed supply of 30 million cubic feet of gas supply annually. Turkmenistan submitted an initial report of the survey conducted by U.S geological experts on the reserves and has promised to hand over details within one month. Pakistan says the project would be feasible only if it guaranteed supply of 30 million cubic feet of gas annually.

The further progress on this project will depend on the strength of the gas reserves of the filed data, certification of the reserves, level of possible private interest and willingness of Turkmenistan to fulfill its commitments to Gazprom and still supply Pakistan.

On 24 April 2008, Pakistan, India and Afghanistan signed a framework agreement to buy natural gas from Turkmenistan.[13]

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[10] Asian Bank report on Technical Assistance for the TAP natural gas pipeline (Phase-II_ dec. 2003
[11] Alexander's gas & oil connections-India urges to join trans.... March 20,2003
[12] International gas pipeline projects- Ministry of petroleum & natural resources-government of Pakistan
[13] Trans-Afghanistan Pipeline- Wikipedia, the free encyclopedia.(http://en.wikipedia.org/wiki/Trans-Afghanistan_pipeline.

1.1.2 Geo-political threats and problems on ground:

To start with the feasibility of an estimated $ 3.5 billion project[14] it was plagued by delays and intervals as it would be only conducted after a submission of certificate on Dauletabad's reserves by Turkmenistan that was one of the major obstacles in undertaking the project conceived in early 1990s.

The safety of the pipelines has remained a major source of concern for the project planners and sponsors in the wake of unstable situation in the war-torn Afghanistan. The presence of landmines along and near the route of the proposed pipeline that will travel nearly 500 km through Afghanistan have added to the difficulties.

Challenges in the TAPI project also include mitigation of the security risk in Afghanistan, improvement in Indo-Pakistan relations, and programs to minimize or phase out fuel subsidies in both countries and finally the ability of the pipeline options to withstand competition with liquefied natural gas (LNG) in the long run.

Until recently, the TAPI pipeline was considered effectively dead due to instability in the political and security conditions of Afghanistan, particularly the southern part of the Afghan section runs through territory which continues to be under the de facto control of Taliban and a fresh agreement executed by the government of Turkmenistan with Russian gas giant Gazprom for increased Europe-bound gas supplies at enhanced price rate.[15]

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[14] Alexander's gas & oil connections-India urges to join trans.... March 20,2003

[15] $4 bn Tap gas pipeline project in jeopardy by Khaleeq Kiani-anarticle published on 29/11/2007 in Dawn the international Edition

After this revised agreement, it seems that Central Asian state would have little surplus gas available for export to the South Asian region. The project would be feasible only if it guaranteed supply of 30 million cubic feet of gas supply annually. According to the World Bank, the further progress will depend on the robustness of the gas reserves data, certification of the reserves, ability and willingness of Turkmenistan to fulfill its commitments to Gazprom and still supply Pakistan.

Turkmenistan and Gazprom had a 25 years gas supply agreement valid until 2028 but Ashgabat uses export projects like TAPI to improve its price with Gazprom[16]

The overall feasibility of TAPI transnational gas pipeline project seems questionable and is unlikely to materialize even in the next decade due to following reasons:

- Instability in the political and security conditions in Afghanistan, particularly the southern part of the Afghan section runs through territory which continues to be under the de facto control of Taliban.

- Turkmenistan's fresh revised agreement with Russian gas giant Gazprom for increased Europe-bound gas supplies at enhanced price rate. Price offered by Gazprom could become a stumbling block because Pakistan and India may find it unaffordable for their economies when compared with the much prosperous European region. According to the revised agreement with Gazprom,

[16] *Ibid*

Turkmenistan would increase gas deliveries to Gazprom to about 50 billion cubic meter (BCM).[17]

1.2 An Overview of Qatar- Pakistan Gas Pipeline:

In 1990 a UAE-based energy firm Crescent Petroleum International has initiated and sponsored a gas import project through an offshore pipeline from Qatar to Pakistan for delivery of gas from Qatar's north field, which has 300 TCF of gas reserves, through a proposed 1,671 km long, 44 inch diameter pipeline with a capacity of 2 BCFD. The proposed Qatar-Pakistan pipeline is expected to cross into Pakistan through the shallow waters, UAE territory and then across the Persian Gulf to Pakistan at a point near Karachi. Around 100 km of this pipeline would be passing through deep sea.

ADB has funded the feasibility study of the project, which was completed in near past. The engineering work and feasibility study of $ 3.5 billion Pakistan-Qatar gas pipeline has already been completed with the cost of $ 30 million. A Memorandum of Understanding (MOU) with the government of Pakistan has been signed for import of up to 1.6 billion cubic feet of gas per day from Qatar starting from year 2010.[18] Initially, the project is to supply 1.6 billion cubic feet of gas per day and is ultimately projected to go up to 3.5 billion cubic feet per day.

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[17] *Ibid*

[18] ADB asks Pakistan for finalizing gas import pipeline project-Article published in Pakistan Time-Bubiness on April 9, 2005

In 1996, a French oil and gas company: Total has reconsidered the proposal to join a consortium of five international firms engaged in a $ 3.5 billion gas pipeline project from Ras Laffan in Qatar to the port city of Karachi in Pakistan.[19] The 1,671 km proposed Qatar-Pakistan trans-Gulf gas pipeline project, designed to carry 48 billion cubic feet per day of natural gas from Qatar's giant North Field, is being promoted by a consortium known as the Gulf South Asia Pipeline Company. The leader of the consortium is said to be the Sharjah-based Crescent Petroleum Corporation. Other members are Calgary's Trans-Canada Pipeline Company, the Itouchu Corporation of Japan, Brown and Root, of Canada, and the US firm Halliburton. The project's manager, Mohammed Makawai, said from Sharjah: "We have made an arrangement with Total for implementing the pipeline project from 1998, and planned delivery of gas three years later". Total may be interested in joining the consortium as a project promoter for upstream development, drilling and developing several gas wells in the North Field. Crescent Petroleum has been in touch with several global gas companies in its bid to add a partner who would develop the upstream part of the project.

This project was designed to carry 48 billion cubic feet per day of natural gas from Qatar's giant North Field. Though this project does not involve much political and legal issues, nevertheless it is not likely to be successful due to dedicated reserves of Qatar's North Field.

[19] Alexander's Gas & Oil Connections-Total invited to join Qatar-Pakistan trans-Gulf gas pipeline (vol.1,issue 2, Dec 18, 2006)

This project remains under consideration of the Government of Pakistan, as a future option

This study, in chapter-II, would highlight in detail the IPI cross-border pipeline fully appreciating the fact that there are political differences in the region. Analysis would be made as to whether, in view of the differences, can the business of supplying natural gas through pipelines traversing multiple countries could be successful.

The IPI gas pipeline (which is also called Peace Pipeline) is a proposed 2,775 km gas pipeline project to deliver natural gas from Iran to Pakistan and India. The pipeline is proposed to start from Asalouyeh stretching over 1100 kilometers in Iran itself. In Pakistan, it will pass through Balochistan and Sindh. The total cost of the project was estimated to be over US$ 7 billion in 2006. This pipeline project will initially carry around 60 million standard cubic meters per day of gas.[20]

The project is expected greatly benefit for both India and Pakistan which do not have sufficient natural gas to meet their rapidly increasing domestic demand for energy.

The Economic Co-ordination Committee ("ECC") (the highest economic decision-making body in Pakistan) has approved the construction of the IPI project on segmented basis. IPI Pakistan portion may be undertaken in private sector on build, own, operate and transfer (BOOT) basis. The cost of IPI Pakistan portion has been estimated at around $3.5 billion.[21]

[20] Iran-Pakistan-India gas pipeline from Wikipedia, the free encyclopedia
[21] Pakistan to lay $3 bn of Iran-India gas pipeline- published in Express India.com on April 10, 2007

The study would further provide a general overview of the various types of legal instruments and arrangements related to cross-border pipelines highlighting some of the important provisions relating to transportation on cross-border pipelines.

This study may be helpful for developing legislation in Pakistan and formulation of contracts to be entered into by the Government of Pakistan on cross-border pipelines coming into Pakistan.

CHAPTER-II

IRAN-PAKISTAN-INDIA GAS PIPELINE PROJECT

2.1 Background

For the first time the idea of an overland, trans-Pakistan pipeline was proposed in 1989 by Ali Shams Ardekani, acting Deputy Foreign Minister of Iran, and Rajendra K. Pachauri, the Director General of the Tata Energy Research Institute (TERI) in New Dehli[22]. This idea has received a positive reaction in Iran, but the initial response from New Delhi was unsure as the Indian politicians were not ready leaving their long-term energy security in the hands of Pakistan.[23]

Prior to Gulf War, Iraq and Kuwait together had been supplying about two-thirds of India's oil, when the war broke out India's supply was reduced from 15 million tons to 5 million tons of oil overnight. Due to this reduction in the oil supplies, India realized the need to form new relationships and, in 1993, India signed a Memorandum of Understanding (MOU) with Iran.[24] Since India was desperate, meanwhile it began to investigate other oil and gas import options through pipelines. An agreement for an underwater pipeline project with Oman was signed in 1994, although the project soon collapsed due to financial and technical difficulties. India explored gas options from

[22] Iran-Pakistan-India gas pipeline-Wikipedia free encyclopedia
[23] The Iran-Pakistan-India pipeline- the intersection of energy and politics- IPCS research paper by David Temple (April 2007), p.6
[24] *Ibid*

Bangladesh and Myanmar but neither offered the long-term quantity of gas for which India searched.[25]

Since the discovery of natural gas reserves in Iran's South Pars fields in 1988, the Iranian government began increasing efforts to promote higher gas exports abroad. Despite having the world's second largest proven gas reserves, Iran unlike many of the other hydrocarbon suppliers did not succeed to generate the sufficient revenue to meet its foreign demand[26]. Several years of US sanctions had left Iran out of the oil market, and Iran was eager to find a profitable market for its gas. The prospects for profit are especially high in South Asian countries like India and Pakistan, where natural gas reserves are low and energy demand exceeds energy supply. In 1995, Pakistan and Iran signed a preliminary agreement for construction of a natural gas pipeline linking the Iranian South Pars natural gas field in the Persian Gulf with Karachi, Pakistan's main industrial port located at the Arabian Sea. Iran later proposed an extension of the pipeline from Pakistan into India. Not only would Pakistan benefit from Iranian natural gas exports, but Pakistani territory would be used as a transit route to export natural gas to India.

Initially, the Indian government was reluctant to enter into any agreement with Pakistan due to the historically tense relationship between the two neighbors. As an alternative, India suggested the development of a deep sea pipeline where no threat to security of resources could exist. In 2000, Indian, Iranian, and Pakistani government officials continue to negotiate the possible routes, modes of transport, and geopolitics of the Iran

[25] ibid
[26] TED Case Studies-Iran-Pakistan-India natural gas pipeline: Implications for conflict resolution & regionalism in India, Iran and Pakistan-By Shamila N. Chaudhary

to India natural gas pipeline. These negotiations indicate a significant shift in inter and intra-regional politics between the states. The potential for economic and developmental gain from natural gas will force India, Iran, and Pakistan to reassess their roles and policies in regional conflicts, like Kashmir, Afghanistan, and national security issues. Furthermore, potential economic collaboration and gain will also lead to a possible conversion of social and political dialogue between the countries, perhaps even leading to mediation and resolution of regional conflicts.[27]

In January 2005, the three countries agreed to undertake the project as a commercial venture and the real progress in the technological, commercial and legal aspects of the pipeline was made during the first half of that year. The meetings took place bilaterally between Iran and India, and between Iran and Pakistan. This method ensured that political disputes would not murky the focus of the meetings. It also satisfied India's requirement that the pipeline deal be only with Tehran; if Pakistani cooperation was necessary to the pipeline, then it would be up to the Iranians to do the negotiating. In May of 2005, an Indian delegation went to Tehran and during the meetings some important matters were discussed such as "gas reserve certification and allocation, gas quantity and buildup, gas quality, system configuration, and project structure." For the first time, the meeting also touched upon politically sensitive issues such as "pipeline routing, delivery points, transportations tariffs, transit fees, capital and operation costs and pipeline security." Between June and December of that year, another 9 bilateral meetings took place.

[27] Iran to India natural gas pipeline: implications for conflict resolution & regionalism in India, Iran and Pakistan-TED Case study by Shamila N. Chaudhary

In December of 2005, India agreed to take part in trilateral meetings, the first of which took place in January 2006. Several major players from the gas industry attended the meeting and a variety of international companies made presentations on the relevant technology. Aside from price and a few details of contractual structure, the delegates from the three countries agreed on most of the important aspects of the pipeline, such as pressure, thickness, etc.[28]

However, pipeline progress has become stalled in pricing negotiations, slowing the momentum to a standstill.[29] Bilateral meetings have continued to take place, but with the international gas market lacking any formal pricing structures, disagreements will not be easily resolved. Since the IPI pipeline is expected to supply gas at a pre-determined price for the next forty years, neither side has shown any hint of compromise. Although the energy consulting firm Gaffney Cline Associates spent much of 2006 composing a report aimed at resolving the price discrepancy, Iranian attempts to alter the price yet again in early 2007 have once again derailed the project.[30]

For gas import purposes, the thing which has been considered more economical and viable and also significant is a pipeline, therefore, in this study, before going into other details pertaining to IPI project, I would try to summarize that what is a pipeline made of, different types of pipelines used in the oil and gas upstream, midstream and downstream industry and role of cross-border pipelines in the past and upcoming future.

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[28] IPCS Research Paper 8-David Temple
[29] *Ibid*
[30] *Ibid*

2.1.1 What is pipeline?

A pipeline is a length of leak proof duct steelwork which is used to store and transport petroleum between the points at which petroleum is put into and taken out of that pipeline. Commercially a pipeline represents the means by which petroleum can be transported from the site of its production to the site of sale. A pipeline comprises all parts of the physical facility through which liquids (crude oil, petroleum products) or gases (natural gas, carbon dioxide) are transported including pipe, compressor pump stations, metering stations, regulator stations, delivery stations, holders and fabricated assemblies.[31]

Pipelines are the safest and most efficient means of transporting crude oil and natural gas from producing fields to refineries and processing and of distributing petroleum products and gas to the consumers.

A pipeline effects the marriage between a seller and its petroleum and a buyer and its money.

There exist various types of petroleum pipelines as given below:

- **In-field pipelines-** also called flow-lines or gathering lines, these relatively small diameter pipelines connects gas production wells to production facilities and connect those facilities to the trunk lines. These are committed to carriage the gas from the wells to the facilities and from the facilities to the trunk lines.

[31] www. cepa.com/pipeline 101.aspx?page_guid=827CCD9F-4EA4-43A9-8261-4C9...

- **Trunk lines**- these are larger diameter pipelines which transport gas from the production facilities to reception facilities and such pipelines will often be configured to transport gas from several input sources. Trunk lines are often the subject of arrangement for the carriage of third party gas.

- **Distribution Pipelines**- sometimes called takeaway pipelines, these pipelines could be a single pipeline configured to transport gas from reception/ re-gasification facilities to the end user facilities. These could be the subject of regulatory regime wherein the rights of a party to access such pipeline will be governed by multi-party transportation arrangements.

In most cases cross-border pipelines, which are used for import purposes, belong to the second category.

2.1.2 History of Cross-Border Pipelines

Historically, the earliest pipelines were probably built in China around 500 BC to transport natural gas from brine/gas wells to heat brine in order to recover salt. Pipelines are developed to transport products to market, products- such as oil, natural gas, gasoline, aviation fuel and the raw materials for plastics, fertilizers and medicines.[32]

In the early 1900s, the pipelines, as a mode of transport for oil and gas, emerged in the United States and Canada. There were only a few transmission pipelines in Canada. One

[32]www.cepa.com/pipeline 101.aspx? page_ guide =9B7EF577-5446-4402-97F8-7809...

ran from oil fields in Ohio to refineries in the Sarnia. Another ran from Bow Island to Calgary, and at 270 kilometers (168 miles) was the longest pipeline in Canada at its completion in 1912.[33] This transport system soon proved to be a very secure, safe and dependable form of transportation and could be compared to blood vessels of the global economy, which is dependant on international trade in energy products and materials. Pipelines are considered most economical way for inland transportation of oil and the sole practical form for transportation of large volume of gas and at present it has become an integral part of every national economy, and in most cases stretches beyond the single State's national frontiers. Cross-border oil and gas pipelines are very imperative for the global economy, which is increasingly dependant on international trade in energy products and materials.[34]

Oil and gas pipelines are extreme capital demanding, but require relatively low operating costs. These also require permanent occupation of land, although underground pipelines do not normally affect surface use of the land. From the technical point of view, there is a clear distinction between pipelines used for transportation of oil and gas, however, both types can be constructed on land and submarine as well.

From the regulatory perspective, there is a difference between the oil and gas pipelines. Gas pipelines are often considered as public utilities, whereas, oil pipelines do not usually conform to this status. In many countries, large oil pipelines are built and operated by private corporate entities with oil companies acting as their major shareholders. However,

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[33] *Ibid*

[34] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

long distance gas transportation until recently has been dominated by state-owned companies and public bodies.

From the international legal perspective, oil and gas pipelines usually confront similar problems, including political and economic risks, especially in unstable regions. They have to deal with similar legal issues, including the acquisition of right-of- way, third party access, transit fee and tariffs, environmental and safety standards, liability for damage in case of accidents and so on.[35]

In view of growing economic and geopolitical importance of oil and gas pipelines, two studies were prepared in the late 1960's by Organization for Economic Cooperation and Development (OECD) and UN Economic Commission for Europe, dealing with international legal aspects of pipelines construction and operation.[36]

In North America and Western Europe, cross-border pipelines' problems have been relatively successfully dealt with within the framework provided by national systems of laws. Many developed countries have either enacted domestic special legislation or statutory law applicable to construction and operation of energy transportation infrastructures, in land or tans-boundary.

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[35] *Ibid*

[36] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

Globally energy transportation infrastructure is being rapidly expanded, especially into the regions and countries with less advanced legal and regulatory systems, international law will play a great role in these areas.[37] Legal and fiscal instability are the serious impediments to energy infrastructures development and investment, which inter alia, from the inadequacy of domestic legal frameworks as well as from the absence of accepted international rules governing these activities of cross-border network.

ASEAN, the Association of South East Asian Nations, is a ten-state co-operative framework intended to promote greater regional development through mutual assistance. Originally founded in 1967 by Indonesia, Malaysia, the Philippines, Singapore and Thailand, the membership of ASEAN has since doubled to include Brunei (1984), Vietnam (1995), Laos (1997), Myanmar (1997) and Cambodia (1999). The ASEAN had developed a project namely Trans-ASEAN Gas Pipeline (TAGP) linking major gas production and utilization centre. Once realized the TAGP will have the potential of linking almost 80% of the ASEAN region's total gas reserves and will embody a far-reaching expression of the region's energy interdependence and long-standing interest in the coordination of energy activities.[38]

Set of special rules governing transmission by pipelines were adopted in the recent past. Numerous international agreements between states as well as between host countries and private companies were concluded to ensure and facilitate individual cross-border pipeline projects. Recently concerted actions on a multilateral level have begun to

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[37] *Ibid*

[38] Asia Pacific Review Trans-Asian gas pipeline July 2003- Trans-Asian Pipeline_AP03

elaborate basic legal principles and rules generally applicable to trans-boundary energy transmission infrastructures.

2.1.3 Future Role of Cross-Border Pipelines:

In order to meet the increasing demand of energy, in the near future the world will need more cross-border pipelines for the transportation of oil and gas. Two factors explain this need: "the location of oil and gas reserves" and the "patterns of energy demand", which may be describe as under.

- Oil and gas reserves those were available close to traditional markets are being depleted and these markets looking for newer, more remote sources of oil and gas for their needs. The successful exploration of many of these sources will require pipeline delivery. In the case of oil, for example, some of the newer basins, particularly those of the Caspian region, are landlocked.

  With regard to gas, pipelines are even more compelling. Gas reserves close to market are declining, thus requiring gas to move further crossing the trans-boundaries. LNG is the only alternative to pipeline transportation which is cost-competitive with pipelines only over distances in excess of 3,000 miles (4,800km).[39]

[39] Cross-border oil and gas pipelines: Problems and Prospects 2003- report prepared by Professor Paul Stevens, CEPMLP, University of Dundee, Scotland, UK

- In the past, regulatory, institutional, and economic barriers constrained the use of gas (with the notable exception of within the former Soviet Union). The future will see a greater role for gas in the primary energy mix. Due to the changes in the energy demand patterns, the cross-border trade will grow. More cross-border pipelines clearly will be needed for oil and gas.

2.2 Description and Progress of IPI Gas Pipeline

The Iran-Pakistan-India gas pipeline, also known as the Peace pipeline, is a proposed 2,775 km gas pipeline project to deliver natural gas from Iran to Pakistan and India. The pipeline is proposed to start from Asalouyeh stretching over 1100 kilometers in Iran itself. In Pakistan, it will pass through Balochistan and Sindh. The total cost of the project was estimated to be over US$ 7 billion in 2006. The 2,775-kilometer (1,724-mile) pipeline from Iran's giant South Pars gas field will initially carry around 60 million standard cubic meters per day of gas.[40]

The project is expected to take three to five years to complete. The project is expected greatly benefit both India and Pakistan which do not have sufficient natural gas to meet their rapidly increasing domestic demand for energy. India is predicted to require 400 million cubic meters of gas per day by 2025, up from 90 million cubic meters per day in 2005.

The proposed project had a setback on July 16, 2006 when Iran demanded a price of 7.2 dollars per million British thermal units ("MBTU") of gas against India's offer of 4.2

[40] Iran-Pakistan-India gas pipeline from Wikipedia, the free encyclopedia

dollars per MBTU.[41] The Indian spokesperson has reasoned that Tehran's price is more than 50 per cent the prevailing market determined gas price in India.[42] India and Pakistan finally agreed in February 2007 to pay Iran $4.93 per MBTU for its gas but some details relating to price adjustment remained open to further negotiation.[43] Pipeline length for Pakistan portion is 1,036 km and its configuration is: for Phase I- 1 x 56" Class-600 X-70 pipeline 2.1 Bcfd and for Phase II- 2 x 56" pipelines 5.3 Bcfd.

The Economic Co-ordination Committee ("ECC") (the highest economic decision-making body in Pakistan) approved the construction of IPI project on segmented basis. IPI Pakistan portion may be undertaken in private sector on BOOT basis.[44] The lead investor will setup a special purpose pipeline company (PipeCo) to undertake detailed feasibility, engineering, procurement, financing, construction and operation to transport imported gas. Government of Pakistan or its controlled entities may also take equity in PipeCo to facilitate financing.

2.2.1 IPI Project Chronology

- In 1988 The discovery of the South Pars gas field by Iran (world's largest gas field combined with the Qatari part called the North Dorm).
- In 1995 A preliminary agreement between Iran and Pakistan to build gas pipeline from the South Pars to Karachi.

[41] ONGC to liquefy gas from Sakhalin in Russia-News-oneindia 21/7/2006
[42] *Ibid*
[43] The Financial Express dated Feb 2, 2007-Iran-Pakistan-India gas now in pipeline
[44] Import gas pipeline projects 3rd Pakistan oil & gas conference Islamabad (Feb 18-20, 2007) paper submitted by Syed Hassan Nawab.

- In 1996 Iran proposed to extend the pipeline from Pakistan to India.
- Feb 1999 Iran and India signed a preliminary agreement on bilateral collaboration on the pipeline.
- Apr1999 Iranian and Indian Governments established a Task Force to study the feasibility of the pipeline.
- Mar 2000 Pakistani Secretary of Petroleum visited Iran and formally agreed to the pipeline between the three countries (now formally "IPI").
- July 2000 Pakistan guaranteed to Iran and India the security of IPI passage through Pakistan.
- Sept 2000 President Musharraf expressed Pakistan's willingness to participate in IPI in NY.
- Jan 2004 President Musharraf expressed his strong hope for IPI at the World Economic Forum in Davos, Switzerland.
- Mar 2006 The US White House reiterated its opposition to IPI due to the concern over "Iran's nuclear activities, support for terrorism, and serious human rights record."
- Mar 2006 The first tripartite Governmental talks were held in Teheran.
- Feb 2007 Pakistani Secretary of Petroleum said that the documentation for the IPI pipeline project will be made by July 2007.
- May 2007 Tripartite meeting on a framework pricing agreement was held.
- June 2007 The trilateral Vice-Ministerial meeting reached the basic agreement on the pricing of natural gas from Iran ($4.93/MBtu).

- Sept 2007 Iran warned India that it would sign a deal with Pakistan alone if India did not swiftly agree on transit pricing with Pakistan.

2.2.2 IPI Project Status

- Iran has about 944 trillion cubic feet (Tcf) technically proven natural gas reserves, with a production potential of 40 Bcfd for the next 50 years
- Iran produced 9 Bcfd in 2006 to meet its domestic and re-injection requirements, to increase to 15 Bcfd by 2015, leaving a huge exportable gas surplus.
- The project is being developed to bring gas from the Iranian South Pars gas field in the Persian Gulf through an on-land route to Pakistan and India.
- A Term sheet was signed between Iran and Pakistan in 2005, for supply of 2.1 Bcfd natural gas for a period of 30 years.
- Each country to build the pipeline in their respective territories
- Agreement reached in principle on gas price. Awaiting formal approval
- India to confirm its approval of gas price after discussions with Pakistan on transportation tariff and transit fees
- Pre-Feasibility study for Pakistan portion of pipeline completed by Price Waterhouse Coopers in December 2006.
- NESPAK awarded route options study in August 06. Draft Final Report received
- Coastal route preferred and used as basis for further development
- Pipeline configuration:

  • Phase-I- 1 x 56" Class-600 X-70 pipeline 2.1 Bcfd

• Phase-II- 2 x 56" pipelines 5.3 Bcfd

- Iran has started building its section of the pipeline from Assaluyeh to Iran Shehr, 200 km from Pakistan border, to serve its Eastern provinces, expected to be completed in three years i.e. by 2010.[45]

2.2.3 Importance of IPI Project

India's burgeoning industry is desperately looking for natural gas, the cleanest and cheapest fuel. India's existing demand of 151 million cubic meter of gas per day is likely to shoot up to 391 million by 2025. The present domestic gas supply is 65 million, according to government statistics.

Pakistan is expected to earn nearly $ 600-700 mm a year from transit fees.[46] Pakistan also is keen to import gas using the same pipeline. Pakistan wants the pipeline to pass through the Makran coast in south- western Balochistan province and north of Multan in eastern Punjab province and into India.

The first gas delivery of 2.1 billion cubic feet per day at the Pak-Iran border would be materialized in 2012 and the transit fee, which Pakistan would get from Iran, would be decided in accordance with the best practices in the world. The ECC approved in principle the gas-pricing formula, linking it to the price of Japan crude cocktail under the $7.2 billion IPI gas line project at the Pak-Iran border.[47] After the IPI pipeline project

[45] Import gas pipeline projects 3rd Pakistan oil & gas conference Islamabad (Feb 18-20, 2007) paper submitted by Syed Hassan Nawab.
[46] Intelligence briefs on geopolitics, security etc of IPI pipeline talks to continue in Tehran, March 21, 2005
[47] Daily Times-Business Plus dated Sept 16, 2008

started taking shape, Pakistan and Iran have agreed on the gas pricing formula, which the ECC approved in principle.

Pakistan would again move the ECC on the gas pricing formula issue for formal approval after getting the input from India. India would formally confirm the acceptance of gas-pricing formula after reaching an understanding on the transportation cost and the transit fee for the pipeline traversing Pakistan.

The ECC also approved sharing of Iranian gas of 2.1 billion cubic feet per day equally between Pakistan and India in the Phase-I of the IPI project. In the Phase-II, 5.3 billion cubic feet gas per day would be imported, out of which India would purchase 3.2 billion cubic feet per day gas and Pakistan 2.1 billion cubic feet per day. The ECC also approved the construction of IPI project on segmented basis.[48]

Under this approach, Tehran would lay the pipeline from Paras gas field to Pak-Iran border and Pakistan would lay pipeline from Iranian to Indian border.[49] The gas would be imported from the Paras gas field, which has 944 trillion cubic feet gas reserves, the second largest after Russia's gas field. The Paras reserves are enough for the usage of next 50 years if the gas of 40 billion cubic feet per day is utilized.

According to some sources, Iran has started laying pipeline from Paras field to Pakistan border[50] as Iran also wants to provide gas to the population in its part near Pakistan

[48] ECC approves price formula: Work on IPI pipeline to begin next month-By Khaliq Kiani published in Dawn the internet edition April 11, 2007
[49] Geopolitics of pipelines: Iran-Pakistan-India Gas Pipeline-The third Eurasian pipeline conference Harriman Institute, Columbia University NY 12-13 Nov, 2007
[50] ECC approves price formula: Work on IPI pipeline to begin next month-By Khaliq Kiani published in Dawn the internet edition April 11, 2007

border. The pipeline's route through Pakistani territory has still to be decided, but would be in the range of 750-1050 km long. Cost of laying the pipeline within the Pakistani territory has been estimated at around $3.5 billion, which is given below.

Capital Cost Estimation for Pakistan Portion of IPI Gas Pipeline

	Iran-Pak border to Hyderabad	**Hyderabad to Pak-India border**	**Total US $ Billion**
Line pipe, Valves & Scraper Stations	1.14	0.16	1.30
Construction & ROW	0.42	0.09	0.51
Compressor Stations	0.40	0.07	0.47
Associated Infrastructure & Metering	0.06	0.02	0.08
Engineering & Project Management	0.14	0.02	0.16
Capital Insurance & Contingency @ 15%	0.34	0.06	0.40
Sub-Total	**2.50**	**0.42**	**2.92**
Interest During Construction	0.50	0.08	0.58
Capitalized Cost	**3.00**	**0.50**	**3.50**
Length, km	795	241	1,036
Diameter, inches	56	36	n/a
Pipe Capacity, mmcmd (bcfd)	60 (2)	30 (1)	n/a

Source: Import gas pipeline projects 3rd Pakistan oil & gas conference Islamabad (Feb 18-20, 2007) paper submitted by Syed Hassan Nawab.

Two routes of the pipeline are under consideration under which it would be having two lengths 7,500 km and 1,050 km, the exact length and the cost would be decided after the route was finalized. Pakistan will carry out the techno-economic feasibility of the project structure to be laid in its territory and to this effect an international consultant would be appointed.

The issues including transportation cost; transit fee; joint declaration; inter-governmental agreement; gas sales and purchase agreement, project structure; appointment of a project coordinator and the project feasibility study would be resolved soon. The ECC would approve transit fee and transportation cost after working out in consultation with India.

CHAPTER-III

GEO-POLITICAL, LEGAL AND ECONOMIC ASPECTS OF IRAN-PAKISTAN-INDIA GAS PIPELINE PROJECT

3.1 Introduction

It is obvious that international energy trade is increasingly dependent on transportation via pipelines crossing international borders. It is expected that this growing reliance on imported oil and gas will foreseeable in future. This increasing trend of cross-border pipelines faces numerous geo-political and legal issues due to involvement of different states with different interests, which are needed to be properly identified and addressed in order to make a project successful. Geo-political and legal aspects of any cross-border pipeline are considered to be very important.

The United States and European Union have always viewed IPI project as Iran's latent efforts to finance its covert nuclear enrichment program and hence they are staunch opponents of this project. They proved to be probably the biggest hurdle so far. U.S has launched efforts, diplomatic and otherwise to freeze this project in its tracks.[51]

We can find many forms of conflicts affecting cross-border pipelines. However, there is a general view that conflicts over pipelines, including those due to incompatible legal and regulatory regimes, arise because of politics. Many conflicts definitely have been political, including those that have grown out of political divisions. The geo-politics of

[51] PIPS- Pakistan Institute for peace studies (South Asian Net) IPI: energy security &strategic conflicts by Safdar Sial dated 20.8.2007

cross-border pipelines can not overshadow economic considerations of the pipeline construction. In the end, it is economics that determine whether a particular pipeline project will ever succeed or not.[52] Gas is exported on the basis of long term contracts, ensuring a bankable minimum income over the duration of the project.

There are other differences between oil and gas pipeline projects, which may be of relevance to the industry and countries involved.

The types of risks relevant to gas pipeline projects are related to supply, market, financial, engineering, and regulatory and political factors. Wherever risks are seen lower and whenever risk mitigation instruments are successfully deployed, the chance of a project to succeed improve. However, regardless of the degree to which the technical, economic and operational risks have been addressed in the contractual structure, not all types of risks can be mitigated by contractual instruments. Important risks are not those that are project-specific or pipeline route-specific, but are related to the general framework of the economy. This includes also the financial, regulatory and political framework of the economy. Those risks are part of a general investment climate, and often entail; additional costs.

The economics of any gas pipeline project depends on whether it can compete with the alternative fuels gas replaces while taking into account the relative environmental benefits of gas. Hence, the determination of the economic costs and value of gas is the

[52] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

crucial first step in deciding whether proceeding with the other aspects of the project are warranted.

3.2 Geo-Political Aspects of IPI Pipeline Project

Based upon the big size of the IPI pipeline project, the number of stakeholders involved, and the territory covered, the trans-Pakistan pipeline faces a large number of diplomatic risks and hurdles. Although the pipeline provides an economically attractive option, India will be forced to weigh the interests of the project's stakeholders if the IPI is to succeed. With the United States claiming itself as a fourth stakeholder in the trilateral project, the project's future will depend on balancing the competing objectives of the different stakeholders.

The geopolitical risks associated with the Iran-Pakistan-India pipeline may be high, but existing safety mechanisms can reduce the associated costs should any such situation materialize. The diplomatic hazards are manifold. Yet steps have been taken to mitigate the majority of these risks, an international consortium of bankers and major oil companies will back the project, which should help ensure that Iran acts in good faith.

Pakistan's stakes in the IPI project primarily revolve around its need for natural gas, although its uncomfortable relationships with the three other stakeholders threaten to impact the project's outcome. While Pakistan's relationship with India kept the brakes on the IPI for the first decade of discussions, its relations with Iran and the United States

could potentially play an important role in pipeline negotiations. Despite claiming long-standing brotherly relations with Iran, tensions arising over Pakistan's support for the Taliban continue to plague Pakistani-Iranian relations. Iran blames Pakistan for American involvement in the region and Pakistan suspect Iranian resentment over its development of Gwadar port as a competitor to Iran's port at Chabahar. Due to its energy deficiency, Pakistan has understandably demonstrated an interest in putting the pipeline before politics.

Iran is benefited from IPI project in many folds, but it stakes in the IPI are muddied by its internal disorder. Having the world's second largest proven reserves of natural gas, Iran's gas sector, starved of investment by twenty-five years of US sanctions, is highly underdeveloped. The IPI project would not only provide Iran with a much-needed export market for its gas, but would also present it with a powerful counter-weight to US policy that has sought to isolate Iran both in diplomatically and economically.

Since pipeline gas would play a major role in India's energy security for at least forty years, India will not proceed until it is sure that its gas will be safe at the source as well as in transit. If negotiated improperly, the IPI could leave India indebted to Iranian interests.

India and Pakistan might be more willing to tie themselves to Iran if there was no US opposition in this respect. The US has sought to isolate Iran, in 1979 both diplomatically and economically. The IPI, which would pump millions of dollars into the Iranian economy each year, is in direct confrontation with US policy. Thus, the US has consistently pressured India and Pakistan to pursue alternate sources of energy, using a

combination of threats and incentives to tempt India and Pakistan away from Iran. As the US confronts Iran over its nuclear program, it has had difficulty in getting China and Russia to agree to effective sanctions at the UN. This means that the US has more incentives to look for other ways to starve Iran of investment.

Moving oil and gas through pipelines over long distance involves significant risk and expense, regardless of country risk levels. The longer the pipeline and the larger its diameter, the stronger the need to assure a comprehensive risk mitigation framework that may involve bilateral, multilateral and commercial instruments.

In future, most cross-border pipelines will be needed for transportation of oil and gas. Impediments, however, exist to the construction and implementation of these pipelines that are required to be addressed first. Cross-border pipelines have a long history, especially where transit is involved, exposure to disruption and conflict.

There are different types of conflicts which can affect the cross-border oil and gas pipelines. However, there is a general view that conflicts pertaining to pipelines, including those due to inadequate legal and regulatory regimes, arise just because of politics. Several conflicts definitely have been political, including those that have grown out of political divisions. For instance, we can see that some of the problems between the Iraq Petroleum Company and Syria arose because of ideological differences between the two factions. Attempt to build gas pipelines from Iran to India have paused on long-standing disputes between India and Pakistan.

Natural gas, having relatively low environmental impact, is rapidly gaining in geopolitical importance. It has grown from a marginal fuel consumed in regionally disconnected markets to a fuel that is transported across great distances for consumption in many different economic sectors. Natural gas has become the fuel of choice for consumers seeking its relatively low environmental impact, especially for electric power generation. Resultantly, world gas consumption is projected to more than double over the next three decades, rising from 23% to 28% of world total primary energy demand by 2030.

Building of oil and gas pipeline infrastructure is a major challenge to increased world natural gas consumption. Cumulative investments in the global natural gas supply chain of $3.1 trillion, or $105 billion per year, will be needed to meet rising demand for gas between 2001 and 2030, according to the International Energy Agency (IEA).[53]

International trade of oil and gas products is greatly dependant upon the transportation through pipelines traversing international boundaries. In future, it seems that major industrial nations will keep continuing reliance on the imports of oil and gas. According to International Energy Agency (IEA), the world energy demand will continue to increase and will account for about 90% of world energy consumption by the year 2010.

In order to secure uninterrupted access to the oil and gas resources by the petroleum producing countries to international markets, transportation, including transit, is

[53] A joint study convened by the James A. Baker III Institute for Public Policy of Rice .....)

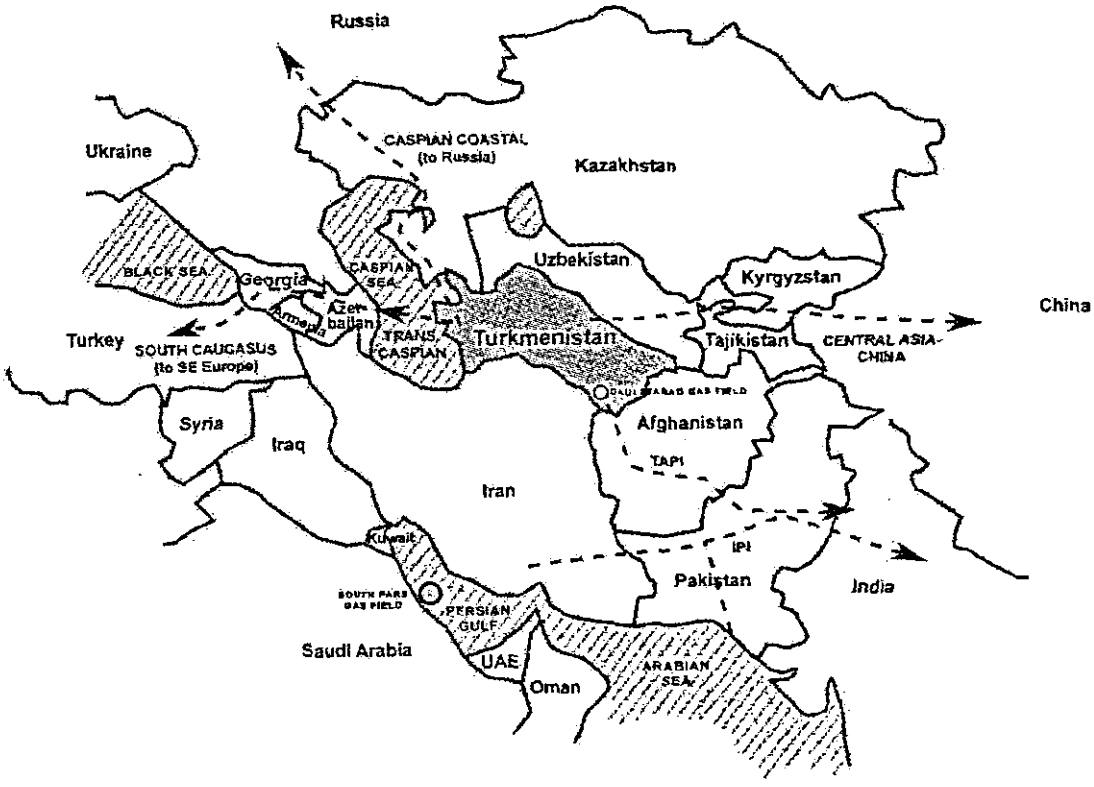
considered fundamental. In Eastern Europe and Central Asia, some of the new pipeline projects, involve an exceptionally high number of transit countries. This may further increase already significant risks associated with the fundamental economics- high fixed up-front capital costs and a long payback period- of petroleum infrastructures.

Whoever owns the pipeline can either control the flow of hydrocarbons, or insist on earning most of the profits from it. On the other hand, cross-border pipelines are exposed to various types of political risks, especially in the regions prone to civil unrest, political instability and military conflicts. There are numerous examples when pipelines have become targets in civil conflicts. In 1997, Turkey's Kurdistan Workers Party (PKK) attacked the Iraqi-Turkish twin pipeline system, causing a spill and a fire. In 1998, Islamic militants fighting the Algerian Government have been accused of placing the bombs that damaged the pipeline, which carried natural gas from the Hassi R'Mel gas field in north-central Algeria to the Azew complex on the Mediterranean coast.

It is evident that some major international energy companies have contemplated but eventually abandoned the plan of building a gas pipeline from Turkmenistan to Pakistan across politically disordered Afghanistan.

In Central Asia, Turkmenistan, is relatively a small and isolated country, has been largely ignored by the American media but it possesses what are believed to be the fourth-largest natural gas reserves in the world.

Map: Proposed Central Asian Gas Pipelines



Notwithstanding the region's isolation, very little regard is paid to Kazakh and Turkmen reserves. Turkmenistan has comparatively little oil at 500 million barrels (mbl) but has estimated proven reserves of 2.9 trillion meter of gas. Furthermore, since a full, public exploration of Turkmenistan's Caspian seabed has not been conducted, we can assume that Turkmenistan's actual gas reserves are almost certainly far greater; the Economist Intelligence Unit has estimated reserves at 10 trillion meter, while the Turkmen Government has claimed it is more than 13 trillion meter, which would place the country in the top four countries for natural gas reserves.

A small pipeline infrastructure which was built by the Soviet Union is transporting Central Asian oil and gas towards Moscow. However, this infrastructure is nowhere near

sufficient to carry the substantial amount of reserves available. A number of pipelines have been built following the fall of the Soviet Union: the Caspian Pipeline Consortium Pipeline from the Tengiz oil fields to the Russian port of Novorossiysk on the Black Sea; the Korpezhe-Kurt Kui gas pipeline from the Turkmen fields to Iran; and the Kazakhstan-China pipeline from Atasu to Alataw in China.

There are two main problems with transport: geography and international relations. From a purely logistical standpoint there is no easy route for the Central Asian oil and gas to reach sea shipping lanes and major markets such as Europe. To head directly west demands either skirting the Caspian, greatly increasing the length of any pipeline, or building an underwater pipeline, which greatly increases the cost of a pipeline. To the east is the Pacific Ocean, but the 6400 miles of pipeline needed to reach it would be a deterrent to construction plans. Running southeast towards the Indian Ocean would mean traversing the mountains of war-torn Afghanistan.

Kazakhstan and Turkmenistan are landlocked nations and they do not have complete control over the utilization of their natural resources. Due to this reason, they are forced to ship their oil and gas via pipelines that run through other countries in order to reach the global market. Whoever controls the pipelines controls the energy they contain, which is vital to a country's economy and even military strength, as modern militaries, with aircraft, armored vehicles, and gas-powered ships are reliant on oil. The struggle for control of these pipelines is now being waged, quietly but surely, between many countries including Russia, China, Iran, and the United States.[54]

[54] The Geopolitics of Oil Pipelines in Central Asia.htm

China and Kazakhstan are discussing the construction of a 3,000 km pipeline from the Caspian oilfields, which will carry crude oil from Kazakhstan to China's oil centre in Karamay located in the province of Xinjiang. The pipeline will cost $ 2.3 billion and take about five years to build. There are also plans to build a gas pipeline from Turkmenistan to China.

Iran would pump the oil and gas south into its existing network, which would boost its efforts to obtain a regional leadership position in the Middle East. The US, attempting to maintain its position as the world's sole superpower, but without direct geographic access to the region, would like the oil and gas to reach the open market without it falling under the control of Russia, China, or Iran.

The above stated developments in the international transportation infrastructures indicate that energy needs and moves towards economic integration can prevail over political problems even in the regions notorious for nationalistic government tendencies, territorial disputes and political instability.

3.3 Legal Aspects

3.3.1 Legal Framework in Pakistan enabling Pipelines

According to Article 172 (2) of the Constitution of the Islamic Republic of Pakistan, the ownership of the petroleum shall vest with the Federal Government. The Regulation of Mines and Oilfields and Mineral Development (Government Control) Act 1948 was promulgated to 'make provision for ....matters connected with the regulation of mines and oilfields.....' and provides a framework for the promulgation by the Government of Pakistan of rules regulating the matters relating to petroleum industry. However, this Act

does not provide provisions and rule and regulation enabling the cross-border oil and gas pipelines.[55]

In 2002, Government of Pakistan promulgated Oil and Gas Regulatory Authority (OGRA) to regulate all activities in the midstream and downstream of petroleum industry including construction and operation of pipelines for oil and natural gas.

The existing regulatory framework does not expressly contemplate cross border transactions. Similarly, there is no indication to suggest that private companies, including foreign companies and companies incorporated in Pakistan but owned and controlled by foreign companies, are prevented from participation in construction, ownership and operation of gas pipelines and transportation of gas.[56]

The word "pipeline" is defined under the OGRA Ordinance as:

"any pipe or any system or arrangement of pipes wholly within Pakistan including offshore area, which transports petroleum and includes all equipment of any kind used for the purpose of, or in connection with, or incidental to, the operation of a pipeline in transporting, handling of petroleum".

It is therefore unclear whether the existing provisions of the OGRA Ordinance provide for cross-border and multi-state pipeline projects. However, the Government has established the Inter State Gas Systems (Pvt.) Ltd. ("ISGSL") to act as an interface between Government of Pakistan and external agencies to facilitate import of natural gas.

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[55] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co
[56] *Ibid*

ISGSL, on behalf of Government of Pakistan, is actively pursuing options for cross-border gas pipelines with the governments of Turkmenistan, Qatar and Iran.

In Pakistan, regulation for the transportation of oil and gas has become the responsibility of OGRA. The OGRA Ordinance contains provisions for open access, common carrier and common operator for transportation / transmission of petroleum:

Section 6(2) (j) empowers OGRA to:

" ensure the provision of open access, common carrier and common operator as may be deemed necessary or expedient by the Authority in the public interest based on an application made by an interested party to the Authority and provided that –

(i) the Authority decides excess capacity is available; and]

(ii) any decision relating to open access, common carrier and common operator adequately compensates the owner of the relevant facility, pipeline or installation."[57]

It is recommended that in order to improve the existing infrastructure in Pakistan, OGRA should exercise this power more readily and appropriate Regulations should be framed to encourage operators of pipelines, facilities and installations share such facilities.

By way of analogy, a successful example in Pakistan is the rules and regulations promulgated by the Pakistan Telecommunication Authority for interconnection agreements and interconnection dispute resolution under the Pakistan Telecommunication Rules, 2000 (made pursuant to the Pakistan Telecommunication (Re-organization) Act,

[57] OGRA Ordinance 2002

1996). These provisions require a telecommunications operator to negotiate and enter into binding interconnection agreements with other operators in order to promote efficiency and maximize telecommunication infrastructure in Pakistan.[58]

Besides other international legal instruments, the Energy Charter Treaty (ECT) is a legally binding multilateral instrument dealing specifically with intergovernmental co-operation in the energy sector. The purpose of ECT, pursuant to Article 2 thereof is to establish:

"a legal framework in order to promote long-term co-operation in the energy field, based on complimentary and mutual benefit, in accordance with the objectives and principles of [European Energy] Charter".

Cross-border pipeline project involves complex political risks, regulatory issues and legal and contractual structures to create a framework which may be agreeable to project sponsors

A legal framework, which is required with respect to any cross-border pipeline project, will have the following contractual relationships:

- The country to country relationship;
- The county/pipeline company relationship;
- The pipeline consortium relationship; and
- The pipeline company/commercial contractors' relationships.[59]

[58] *Ibid*
[59] CEPMLP Annual Review 2001-Article 10.

For necessary legal framework having the above stated ingredients are considered as the best possible, especially in the countries having undeveloped and inadequate legal and regulatory frameworks. or that may have high investment risks. In such a system international (intergovernmental) agreements should constitute the 'umbrella' supported by the host government agreements and necessary commercial contracts.

Transnational petroleum infrastructures raise special legal issues concerning their construction and operation, which may not be necessary similar to the domestic pipelines. Given that parts of a cross-border pipeline are almost always located within the domestic jurisdiction of individual states whose territories are traversed by this pipeline, it is national law that governs in many cases. However, international agreements, inter-governmental as well as between the host State and the investors, may also deal in considerable detail with these issues.

Some of important issues pertaining cross-border oil and gas pipelines will be addressed here with some more detail.

3.3.2 Right-of-way (ROW)

A pipeline ROW is a piece of land over and around pipelines where some of the landowner's legal rights have been granted to a pipeline company. A ROW agreement between the pipeline company and the property owner is also called an easement and is usually filed in the public records with property deeds. ROW and easements provide a permanent, limited interest in the land that enables the pipeline company to operate, test,

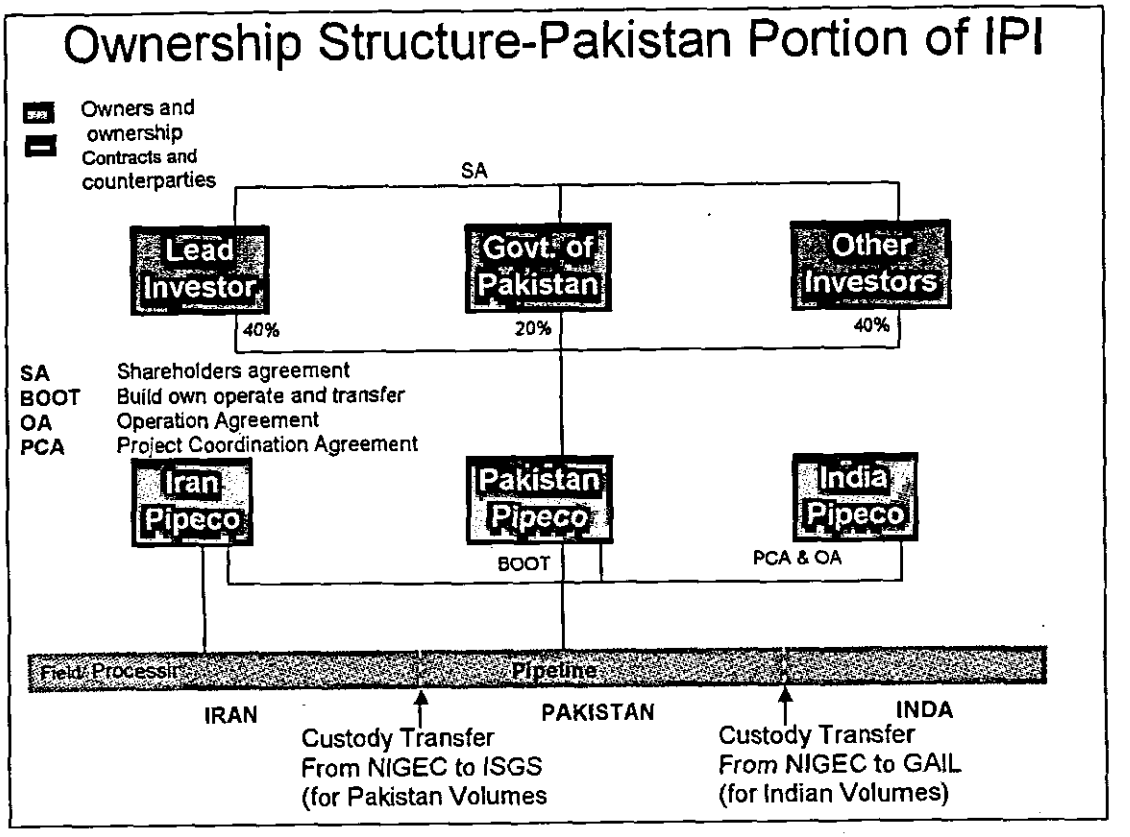
inspect, repair, maintain, replace, and protect one or more pipelines on property owned by others. The agreement may vary the rights and widths of the ROW, but generally, the pipeline company's right-of-ways extend 25 feet from each side of a pipeline unless special conditions exist.

This is the very first issue, which any sponsors and owners of pipeline project have to address. Regardless whether it is a purely national or a cross-border pipeline, right-of-ways are normally granted under domestic legal order in accordance with national procedures depending on the status of land: public, private or offshore. These procedures differ from country to country. The important fact is the need for permanent occupation of the ground traversed by the pipeline. However, with respect to international or cross-border infrastructure the States concerned often undertake to secure ROW for the investor either through an agreement with the latter or by an international agreement with other States involved in the project.

3.3.3 Ownership

The proposed IPI gas pipeline project would be constructed on segmental basis and according to this approach, each segment of the project will be owned by the participating government on which territory that portion of the pipeline is built. Pakistan will own the portion of the pipeline which is laid on its territory.

Proposed ownership structure of Pakistan Portion of IPI project is shown below.



Source: Import gas pipeline projects 3rd Pakistan oil & gas conference Islamabad (Feb 18-20, 2007) paper submitted by Syed Hassan Nawab.

Similarly Iran and India will own the pipelines built on their territories. The ownership of cross-border pipelines may vary depending on the purpose of their construction and other relevant factors, like security of supply, uninterrupted access to markets etc. Most common case is when national segments of a cross-border pipeline have different owners and/or operators, which provide transport services to the producers/ shippers. Such national pipelines were often owned either by the governments through their national companies or by private utilities.

Gradually, international petroleum companies become involved in the pipeline construction and operation. Different companies have become owners of the segments of such pipelines (joint ventures), shares in different combinations, to producers, off takers

as well as third parties. The Maghrab-Europe Gas Pipeline ("MEGP") project is an example of a gas pipeline divided into distinct sections with regard to ownership: Algerian, Moroccan, Spanish and Portuguese[60].

Other type of these pipelines is called the 'dedicated pipelines' would be the constructed and owned in its entirety by petroleum producers in order to transport their own oil and gas. This is the case of Caspian Pipeline Consortium.[61]

In the case of Malaysia-Thailand Joint Development Area pipeline project, (TTM), the responsibility for and ownership of the pipeline is held by a joint venture company owned by the gas buyers.

3.3.4 Tariffs and Transit Fees

Tariff and Transit Fees is another very essential issue, which determines the viability of a cross-border pipeline project. It would be better to differentiate between tariffs and transit fees. The term 'tariff' is generally understood as a user charge paid to the owner of pipeline by the shippers of oil and gas. A 'transit fee' is a negotiated compensation paid to the transit country for the pipeline ROW. The term "fees" can include also the usually preferential terms on which the transit country can lift oil or gas from the line for domestic consumption.[62]

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[60] Cross-border oil and gas pipelines: Problems and Prospects 2003- report prepared by Professor Paul Stevens, CEPMLP, University of Dundee, Scotland,UK

[61] ibid

[62] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

countries would affirm that the tariff paid by the gas suppliers to the pipeline for the transportation of the natural gas within and through their territories shall be based on the internationally accepted cost-of-service based tariff of the pipeline and related facilities within their respective HGA.

The parties may be entitled to a Transit Fee based on the natural gas exiting their territories and not for the natural gas consumed, lost or disposed off within their territories. The parties would further affirm that the Transit Fee shall be negotiated within the limits governed by the economic effectiveness of the project.

In the context of cross-border pipelines, the ECT may be beneficial to Pakistan, and its neighbouring states, in its role as a key geo-political transit state. The transit provisions of the ECT oblige the contracting parties to facilitate the transit of energy on a non-discriminatory basis and consistent with internationally recognized principle of freedom of transit.[63]

The essential feature of transit trade is 'non-interference'. Article 7(6) of the ECT provides that a "... Contracting Party through whose area Energy Materials and Products transit shall not, in the event of a dispute over any matter arising from that Transit, interrupt or reduce, permit any entity subject to its control to interpret or reduce, or require any entity subject to its jurisdiction to interrupt or reduce the existing flow of Energy Materials and Products ..."

[63] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co

The general requirement is that the pipeline rates should be just and reasonable.

For domestic oil and gas transportation, pricing and carriage issues is the responsibility of an independent regulator. In Pakistan OGRA is in charge of the economic regulation of liquid petroleum pipelines and the transportation of natural gas.

With regards to cross-border pipelines, there are no clear and generally accepted rules for the determination of tariffs or transit fees. The tariff structure is usually determined either in accordance with relevant applicable national regulations (with respect to the national 'segments'), or on a contractual basis through negotiations between commercial interests.

When the transit country owns the transit pipeline and there are limited or no alternative routes for the shippers, transit fees can present a serious problem.

International pipeline agreements as a rule deal with this issue of tariffs in a general form, such as the provision of Article 6 of the 1973 Ekofish Agreement between Norway and the UK.[64]

> *"Transportation facilities shall be available at fair commercial rates. The rates shall be subject to the approval of the Norwegian Government; provided, however, that rates shall also be subject to the agreement of the United Kingdom Government as regards petroleum extracted from the United Kingdom Continental shelf."*

[64] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

3.3.5 Taxation

Proper mechanism for addressing the issue of taxes pertaining to oil and gas pipelines would be given in the HGA.[65] This is another issue of great concern to the cross-border pipeline project investors. It is rightly said that a significant difference in tax treatment involving a single pipeline traversing two or more countries can impact on the commercial viability of the project. Fiscal harmonization is therefore important if the development of cross-border infrastructure is to be encouraged. International agreements often contain provisions concerning non-discriminatory treatment with respect to taxes, fees or other monitory charges on either a pipeline or throughput.

3.3.6 Dispute Resolution

The ECT allows Contracting Parties specific dispute settlement procedures peculiar to the energy sector. These include both investor to state disputes and state to state disputes in addition to disputes arising under competition, environmental, transit and trade related issues. It is suggested that in case of any dispute relating to the construction and operation of transnational pipelines, the ICSID (International Centre For The Settlement of Investment Disputes, World Bank), a specialized dispute resolution mechanism peculiar to the Oil & Gas industry, would be better suited in the event of a dispute between a foreign investor and Pakistan.[66]

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[65] Building of Cross-border pipelines for multi-national projects, host government agreements can reduce risk and create a stable investment environment. By George Goolsby, Partner, Baker Botts LLP, Houston, Texas; and Mark Rowley, Partner, Baker Botts, London, UK

[66] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co

Pakistan is an observer state to the Energy Charter Conference and has signed the 1991 Energy Charter Declaration. Similarly Qatar, Iran and Afghanistan are also observer States with Turkmenistan being a Member state.[67]

Given the geo-political instability of the region, ratifying of the Treaty by Pakistan and neighbouring states such as Iran, Afghanistan and India, would be of considerable value and encourage confidence building. Not only would it provide comfort to the contracting states, but also re-assurance to investors who would surely be involved in any ambitious pipeline project in our region. Dispute resolution mechanisms are important not only for settlement of any disputes but also enforcement in the relevant country.[68]

There may be several levels of possible disputes in connection with cross-border pipeline construction and operation:

- between the countries involved in the projects;
- between the host government and the pipeline investors;
- between the pipeline owners/operators and the users (shippers and buyers).

These categories of disputes may require their own dispute settlement mechanism. Interstate disputes are normally settled by negotiation between the parties concerned or may be submitted to third-party resolution, international adjudication or arbitration.

Dispute involving host governments or government's agencies and private parties should normally be subject to international arbitration, using, for example, the United Nations

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[67] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co
[68] *Ibid*

Convention on International Trade Law (UNCITRAL) or the London Court of International Arbitration (LCIA) rules. The 1996 CPC Agreement refers all the disputes, not resolved through negotiations, to the arbitration proceedings conducted under the UNCITRAL rules.

The detailed mechanism provided for under the ECT for resolution of different disputes involving the cross-border trade and construction and operation of transnational oil and gas pipelines is given in subsequent chapter describing ECT 1994.

The IGA is an umbrella agreement which would be executed by the participating governments shall provide details provisions including inter-alia the ROW, ownership of the pipeline, taxation, technical standards, security of pipeline and supplies of gas etc.

3.4 Economic Aspects:

Proposed IPI gas pipeline, being a land based pipeline would be four times cheaper than any other option, even after taking into account transit fee payments to Pakistan.[69] But due to USA opposition and for a long time political tensions between India and Pakistan made it difficult. However, recent improvement in the relations between the two neighbours has brought India to finally consider joining forces with Pakistan for the mutually beneficial pipeline project.

[69] Setback to pipeline plans: by Gal Luft, an article published in Asia Times on Jan 15, 2005

The geo-politics of cross-border pipelines can not overshadow economic considerations of the pipeline construction. In the end, it is economics that determine whether a particular pipeline project will ever succeed or not.[70]

Gas is exported on the basis of long term contracts, ensuring a bankable minimum income over the duration of the project. There are other differences between oil and gas pipeline projects, which may be of relevance to the industry and countries involved.

Oil and gas pipelines both require large upfront capital investments, leading to large fixed costs, and relatively low operating costs. As a rule of thumb, the cost of 1 km of a large diameter trunk pipeline is around US$ 1million.[71] These capital costs are sunk costs, which have to be recovered regardless of the scale of the pipeline's operation. The payback period is extremely long, exposing the pipeline owners to the multitude of risks, both economical and political. These common risks and issues require particular attention and have to be addressed through appropriate legal mechanisms, national and international.

Basic issues associated with cross-border gas pipeline projects mitigating the risk may include: the economic viability of the specific project proposals; the management and allocation of risk between the public and private sectors; the relative need for improved policy reforms, and the political and institutional context for transnational cooperation.

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[70]Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

[71] Legal and Institutional implications of cross-border water pipelines in international ,law as case study by T.Elijah Ngurare-CEPMLP Annual Review 2001-Art. 10

The economics of any gas pipeline project depends on whether it can compete with the alternative fuels gas replaces while taking into account the relative environmental benefits of gas. Hence, the determination of the economic costs and value of gas is the crucial first step in deciding whether proceeding with the other aspects of the project are warranted.

However, risk mitigation cannot transform an inherently uneconomic project into a viable one. Three basic considerations govern the economics of gas projects: sufficient proven gas reserves to meet throughput requirements over the life of the project; a market that can absorb that quantity of gas under an economic pricing structure; and whether considering the total associated costs like total economic costs, the discounted costs of production, transmission and distribution compared with the economic value of gas in the targeted market, result in a viable project. Major distortions of energy product pricing structures in receiving countries, either at the absolute or relative levels, will inevitably impact the economics of any cross-border gas trade project, even if there exists a firm and viable gas purchase and sale contract.

Consequently, rational pricing structures for natural gas, both use and delivery, as well as the pricing structure of petroleum products, electricity, and other possible energy products for which gas can substitute, need to be developed. But even if a transnational gas project is workable from economic and technical standpoints, the financial aspects of the project have to be equally viable. This includes appropriate interest rates, debt/equity

ratios, and grace periods. Finding ways to reduce these risks is an important part of the challenge of making even single country gas projects commercially viable.[72]

Above are clear examples of political conflicts, but many conflicts are based on economic issues, ranging from failure to agree on the terms of transit and on profit and rent sharing issues. The history of the Iraqi export lines and Tap-line are packed with such disputes. Economic-based conflicts also can include debates between joint venture partners, reflecting the differences between public and private companies or between vertically integrated companies and standalone ventures. Should a receiving or transit country also be an oil and gas exporter there is further danger that it may seek to reduce throughput to capture market share for itself.

Cross-border pipelines have their own features, each of which may be associated with certain consequences. Combining these consequences may produce one or more of three results liable to generate dispute and conflict, as follows:

1. Different parties with different interests are involved in the pipeline project.
2. There is no overruling legal jurisdiction to police and regulate activities and contracts.
3. The projects attract profit and rent to be shared between the various parties.

[72]Mitigation of financial risks: the role of the World Bank conference on cross-border gas trade – march 26-27, 2002. *M. Farhandi*

The potential for conflict may have serious implications for the producers and consumers of oil and gas at both ends of the line. The purpose of this study is to identify ways to prevent, mitigate, or contain such conflicts and the disruption that it causes.

CHAPTER-IV

INTERNATIONAL LEGAL REGIME AND INSTRUMENTS RELEVANT TO CROSS-BORDER PIPELINES

4.1 Introduction

The existing legal and regulatory framework of Pakistan for transportation of energy by transnational pipelines is not stable and adequate, which would definitely require the support of international legal framework available for such transactions. International law has no unified procedures for dealing with trans-boundary energy transport, transit or infrastructures. Therefore, brief description of the relevant international legal instruments, particularly their provisions regarding energy material transport via cross-border pipelines and transit would be imperative to understand their intent and scope. In this study some important articles from Energy Charter Treaty, Inter-government Agreements and Host Government are also highlighted.

Energy materials transport and transit requires a substantial degree of co-operation between the participating governments and an adequate international legal framework necessary to formalize and support such co-operation.

International law has an extensive legal and regulatory frame work for international transport and communications: marine and river navigation, railroad, automobile or civil

aviation at the multilateral but for oil and gas pipeline transport it lacks a similar comprehensive legal foundation.

International regulatory framework applicable to cross-border and/or transit petroleum infrastructures is not consistent. There is a clear difference between offshore and on-land pipelines. However, for offshore, 1982 UNCLOS provides some basic international legal framework necessary for the construction, operation and protection of such pipelines, but in case of on-land pipeline, the practice of States varies considerably from case to case basis. On-land pipelines have no special status under international law and they are mainly dependent on specific arrangements agreed to between the States concerned.[73]

One aspect of both submarine and on-land pipelines is common that it may belong to the category of transit i.e. pipelines that cross more than one international border. Recently transit pipelines have become more important, especially in the context of access to distant oil and gas producing regions of Central Asia and the Caspian Sea. The transit states would require proper regulatory frame work for transportation of oil and gas from producing to the consuming countries.

4.2 International Instruments/Models of Cross-Border Pipelines Arrangements

[73] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

Recently two types of proposed transnational pipelines projects have been dominant from international legal perspective, the connected national pipeline model and integrated pipeline model[74]. Brief description of both these models is given below:

a) **Connected Pipelines Model:**

This model is also called connected national pipeline model: a series of connected domestic pipelines and each national section of the cross border infrastructures being under territorial jurisdiction of the respective State and governed by the domestic law. This entire trans-national petroleum transport infrastructures is not considered as integrated whole, it may have several owners and/or operators and be subject to national regulatory systems. All trans-national issues are regulated by the contracts concluded between owners or operators of national sections or by agreements with the respective governments.[75]

Pakistan supports the construction of IPI gas pipeline project on this approach. This approach may increase risk and uncertainty for any company wishing to utilize pipelines. It is asserted that the major difficulty in dealing with cross-border transport under this model is inability to rely just upon a single state's pricing, and the regulation for resolving potential commercial or contractual disputes. Though enhancing the legislative and contractual framework at the national level can help reducing risks in the pipelines

[74] Legal and Institutional implications of cross-border water pipelines in international ,law as case study by T.Elijah Ngurare-CEPMLP Annual Review 2001-Art. 10

[75] *ibid*

sectors, but most durable would be bilateral and multilateral treaties relating to cross border pipelines[76].

(b) **Integrated Pipeline Model:** a single, unified asset with common owners. This model has not been a frequently implemented project. Perhaps because of the enormous legal issues and repercussions involved in the project and also because mostly such pipelines are tailor-made for the topography of the proposed location and surrounding circumstances of the pipeline. An integrated pipeline model would have many other dimensions and purposes other than a mere transmission of gas. It might incorporate a gas storage, purification or condensation facilities along with transmission.

Under this model unit must be protected by intergovernmental pipeline agreements forbidding un-necessary disruption of the flow and undue burdens imposed by excessive transit fees or taxes. The regions especially known for their political and economic instability has resulted in more active involvement of the governments concerned in the construction and operation of cross-border petroleum infrastructures. Such trans-national projects require the support of each host and transit country not only for the segment constructed and operated within their respective territories, but for the entire system as well.

Interstate pipeline may require international framework (multilateral or bilateral) agreement establishing a set of general principles and obligations concerning cross-border pipelines and applicable to all cross- border pipelines between the State parties.

[76] CEPMLP Annual Review 2001-Article 10

There exist a number of international agreements of a general character, primary in the field of trans-border trade, transport and transit, which may also be relevant to construction and operation of cross-border petroleum infrastructures. Some of these instruments contain general principles and rules applicable to various modes of transport and communications. These agreements may not necessary directly deal with cross-border pipelines but their fundamental provisions, such as the principles of "freedom of transit", " none-interference", "none-discrimination", "equal treatment", provide a legal background for the pipeline transport as well[77].

4.3 International Instruments Relevant to Cross- Border Trade and Transit

4.3.1 1919 Covenant of the League of Nations

The Covenant of the League of Nations in its Article 23 (e) provides provisions to the effect that the members of the League would "make provision to secure and maintain freedom of communications and of transit and equitable treatment for the commerce of all Members of the League", subject to and in accordance with the provisions of existing or future conventions.[78]

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[77] *ibid*

[78] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

In the above Article 23 (e) the Covenant emphasized on two principles of international law which carry great importance for international trade and communications: 'freedom of transit' and 'equal treatment'.

4.3.2 1921 Barcelona Convention and Status on Freedom of Transit

This 1921 Convention was made in accordance with the general principle of Article 23 (e) of the Covenant of the League of Nations. However, this Convention gave an additional and more political jurisdiction to the principle of freedom of transit. In its Preamble, the States parties intended "to proclaim the right of free transit and to make regulations thereon as being one of the best means of developing co-operation between States..."

It is apparent from its statue that this Convention has no overriding effect to State general law. Its Article 6 stipulates that there is no duty to grant free transit to any non-contracting State, save where "a valid reason is shown for such transit by one of the contracting States concerned."

Its main provisions are 'non-discrimination' (Article 2, 3 and 4), 'reasonable transit tariffs' (Article 4), and non-deviation from the convention provisions, except in case of an emergency affecting the safety or the vital interests of the transit States (Article 7).

Barcelona Convention (together with the 1947 GATT) remains the main legal source concerning general transit rights. However, this document has certain serious limitations.

This document deals only with transit by rail and on international waterways. Moreover, in the 1921 Conference, majority of the States were from Europe, and therefore positions and problems of States from other parts of the world were not considered as well as not properly reflected.[79]

4.3.3 1947 General Agreement on Tariffs and Trade (GATT)

Article V of the GATT provides the principle of a general right of transit applicable to all participating States, which applies to the transit of goods. The new GATT/WTO Agreement adopted in 1994 did not introduce any changes in the provisions of Article V. GATT treated trade in energy products in the same way as all other trade. Apparently provisions of Article V cover transit of energy products, such as petroleum including its transportation network but there is no evidence that this interpretation is supported by State practice.

Article V including the provisions regarding freedom of transit reflecting to a large extent the principles embodied in the 1921 Barcelona Convention. This Article V applies to "traffic in transit", which is defined as "transit across the territory of a contracting party when the passage across such territory.... is only a portion of a complete journey beginning and terminating beyond the frontier of the contracting party across whose territory the traffic passes". The definition of transit in Article V is a slightly modified version of the definition contained in Article 1 of the 1921 Barcelona Statute.

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[79] *ibid*

4.3.5 1965 Convention on Transit Trade of Land-Locked States

This 1965 Convention is the first multilateral treaty which considered and evaluated the special transit problems of land-locked States (LLS). This Convention was intended to further elaborate eight principles on this issue adopted by the UN Conference on Trade and Development (UNCTAD) in 1964. The UNCTAD principles were included in the Preamble of the 1965 Convention.

This Convention has no direct effect to pipelines, which is clear from the definition of the term 'means of transport' in Article 1 (c). However, it depends upon the parties concerned to agree to include pipelines and gas lines within the meaning of Article 1, when they are used for traffic in transit.

Key provisions of the 1965 Convention are 'freedom of transit' (Article 2) 'non-discrimination' (Article 2 and 3), and 'non-interruption' except in case of force majeure (Article 7).

4.3.6 1982 UN Convention on the Law of the Sea (UNCLOS)

This Convention has provided for a comprehensive legal framework necessary for all marine-related activities. Moreover, it also contains a number of provisions relevant to pipelines, both for offshore and on-land.

4.3.7 1994 Energy Charter Treaty (ECT)

The ECT was signed in 1994 and entered into force in 1998. The ECT has been signed or acceded to by 51 states, mainly countries in Europe and the former U.S.S.R, as well as the EU, Japan and Australia. The ECT has many states with observer status including the U.S., China, Saudi Arabia, Iran, Venezuela, Tunisia, United Arab Emirates, Persian Gulf states and international organizations such as World Bank and the Association of South Asian Nations.[80]

Pakistan is also an observer state to the Energy Charter Conference and has signed the 1991 Energy Charter Declaration. Similarly Qatar, Iran and Afghanistan are also observer States with Turkmenistan being a Member state to ECT.[81]

ECT is a unique multilateral instrument, which establishes a necessary general legal framework in order to promote long-term co-operation in the energy field, based on the mutual benefits and to secure and unimpeded transport of energy products and materials. The ECT essentially a trade agreement and contains strong and far-reaching provisions on investment protection and trade.

Although the ECT covers a broad range of energy- related subjects, its principal provisions are those regulating energy investment, trade and- in a novel and unique manner- the transit of energy goods through states that are party to the Treaty.

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[80] www. Gas and oil.com/ogle/ Issue : (provisional) October 2006
[81] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co

the area of origin and destination belongs to one State and the transit area to the other one. In such a case, both originating/destination State and the transit State must be contracting parties in order for the transit provisions to apply. Annex N attached to the ECT provides a reservation for those contracting parties, which require more than two States to be involved in a transit before the transit provisions will apply. At present, only Canada and the United States, (neither of which signed the ECT) have made a reservation and listed themselves in Annex N.[83]

In case three or more States are involved in a transit, either the originating State or the destination State, and the transit States must be contracting parties in order for the provisions of Article 7 to apply. The ECT will only apply to transit in those States, which are Parties to Treaty.

Transit-related provisions of the ECT apply to the "transport facilities", which are defined as "high-pressure gas transmission pipelines, high-voltage electricity transmission grids and lines, crude oil transmission pipelines, coal shipping pipelines, oil product pipelines, and other specific fixed energy facilities, notably port facilities, specifically for handling energy materials and products (hereinafter EMP).

ECT Obligatory Provisions

The contracting parties commit themselves to taking necessary measures to facilitate transit of EMP consistent with the principle of freedom of transit, in a non-discriminatory

[83] Energy Charter Treaty 1994

and non-obstructive manner. They also undertake to promote the modernization, development and operation of inter-regional transport facilities, as well as the development of internal and cross-border interconnection facilities. In addition, they agree to co-operate in order to mitigate the effects of interruptions in energy supply.

ECT, in its Article 7 (2), lists several activities, which contracting parties agree to encourage. These include the modernization, development and operation of inter-regional transport facilities, as well as the development of internal and cross-border interconnection facilities. The contracting parties undertake also to co-operate in measures designed to mitigate the effects of interruptions in supplies.

Under the ECT, measures to facilitate transit are to be taken without distinction as to origin, destination or ownership of energy, or discrimination as to pricing, and without imposing any unreasonable delays, restrictions or charges. This means that countries may not refuse transit, or refuse to agree to the construction of a new pipeline or network capacity, solely on the basis of the origin, destination or ownership of the energy.[84]

In terms of Article 7 (5), contracting parties must not frustrate the establishment of new capacity, if transit through existing capacity can not be achieved on commercial terms unless they demonstrate that such new capacity would endanger the security or efficiency of their energy systems, including the security of supply. At the same time, the ECT recognizes that there may be situations where national legislation may override the

[84] *Ibid*

The ECT imposes two types of restrictions on contracting parties. One restricts the ability of a Contracting Party to act in a discriminatory or unreasonable manner. The other restricts the right of a Contracting Party to interrupt or reduce existing transit. Contracting parties, although allowed to charge transport levies and tariffs for supervision and administration of transit, are not entitled to act unreasonably with respect to the level of charges or tariffs imposed on contracting party to freely establish the level of charges and tariffs must conform to a level, which is reasonable.

The contracting party is restricted to rightfully refuse new transit or new capacity to another contracting party until it establishes one of the reasons mentioned above. The contracting party shall not lawfully refuse new transit or new capacity solely on the basis of origin, destination or ownership of the EMP to be transported without a proper justification, such as a reasonable concern for security or safety, which must be established prior to refuse such transaction.

Dispute Settlement

The procedures for settlement of disputes related to transit are addressed under three separate sections of the ECT, depending upon the nature of the dispute and the parties involved. Following categories of disputes may arise in connection with through-transit of EMP:

(a) Dispute between an investor and contracting party relating to an investment by former in the area of latter (Article 26);

with the parties to the dispute, may or may not appoint a conciliator, depending on whether or not it is the first time the specific matter has been in dispute.

The conciliator will attempt to negotiate a resolution between the parties. However, if no agreed resolution is found within 90 days of his appointment, the conciliator will recommend a solution or the procedure to be adopted to find a resolution. The contracting parties agree to be bound to observe the conciliator's recommendation until the matter is resolved, or for 12 months, whichever is earlier. If after 12 months, the matter is still unsettled, the parties can notify the Secretary General and begin the procedure again.

(d) Trade related disputes where one of the disputing parties is not the member of the WTO. (Article 29 (7);

Article 29 (7) of ECT provides for a dispute resolution mechanism that is based on the GATT/WTO penal model. The ECT fulfills a unique role in this respect, because it makes a GATT/WTO-like dispute settlement system available although not all parties to the dispute are GATT/WTO.

4.3.8 ECT: Draft Transit Protocol

Article 7 of the ECT already represents the most elaborate set of multilateral legal obligations in existence dealing specifically with energy transit flows. Nonetheless, following the ECT entry into force in 1998, a consensus view emerged among the Energy

The objectives of this Protocol are not very different from those of the ECT. However, there is an obvious emphasis on more proactive policies of the parties with the view of ensuring efficient and secure energy transit.

The Protocol would expend upon the existing provisions of Article 7 of the ECT. This implies that nothing in the Protocol would deviate from, or contradict, any of the existing obligations under the Treaty. In parallel with the development of this new legal instrument, in the form of a Protocol, the Energy Charter's members states are also giving consideration to the development of non- legally binding instruments relating to energy transit, designed to provide member governments and energy companies with guidelines on best practices to follow in relation to negotiations on individual projects involving transit.

Specifically, the contracting parties are in the process of drawing up Inter-Governmental and Host Government Model Agreements for the projects involving cross-border oil and gas transit. Companies and government would not legally obliged to use these models, but their aim is to provide a balanced set of recommendations, supported by the political authority of the Charter Conference, that can be used, if individual governments and companies so with, as a starting- point for commercial negotiations on particular projects.

When taken together, the transit- related provisions of the ECT and Protocol itself, once adopted, will constitute the Energy Charter's "transit regime'. Full implementation of the

Charter's transit regime should help significantly to improve the energy security of producer states, consumer states, and transit countries.

4.3.9 Concluding Observations

ECT provisions pertaining to transit provide for a balance between the sovereign interests of States and the need for certainty and stability in international trade in energy resources. The ECT requires the contracting parties to settle disputes, which arise in connection with existing transit in a commercially acceptable manner. In addition, it allows transit states the necessary flexibility required to assess new or additional capacity prior to the granting of transit rights provided that such new and additional transit does not endanger the security or efficiency of its energy systems, including the security of supply.

It is clear that in order to be effective, the ECT has to be ratified and become binding for all of the States concerned in transport and transit of energy materials. Additionally, the ECT is not the only tool available to assist in matters related to transit. Although it provides a useful framework for implementing basic principles, it cannot replace the need in well-drafted contractual agreements for the sale, purchase or transit of EMP. In all circumstances, the best solution would be a combination of the ECT transit provisions and more detailed and specific agreements between the parties concerned.[86]

[86] Cross-border oil and gas pipelines- Legal and Regulatory Regimes 2001- AIPN study by Dr Sergei at CEPMLP University of Dundee, Scotland, UK

4.3.10 The INOGATE Agreement

INOGATE (Interstate Oil and Gas Transport to Europe) is a program established by the EU with a focus on institutional issues and strengthening of regional co-operation. One of the priorities of the project was to design and implement a commonly accepted institutional framework reflecting the principles of the European Energy Charter and the provisions of the ECT with the objective of setting up commonly accepted rules and regulations for interstate oil and gas transport and transit.[87] . Its main purpose is to enable secure energy supply for the EU by promoting integrations of regional oil and gas pipelines through adequate technical assistance and financial support. This program has been established through INTOGATE Umbrella Agreement (UA) signed in Kieva on 22 July 1999 between the EU and the European and Asian countries through which oil and gas pipelines pass from Central Asia towards Europe[88].

The UA developed through the institutional framework of INOGATE program took effect in February 2001. It is an interstate agreement which makes more rational and promotes the development of an interstate system of oil and gas transport, and attempts to attract necessary investments.

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[87] " Institutional Issues and Strengthening of Regional Co-operation", TACIS "INOGATE" Program 96.07

[88] There are at present 21 countries which have acceded to this agreement with the EU (Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Georgia, Greece, Kazakhstan, Kyrgisztan, Latvia, Macedonia, Moldova, Romania, Slovakia, Tajikistan, Turkey, Turkmenistan, Uzbekistan, Ukraine and the Republic of Serbia).Thus, all of them have agreed to cooperate towards the establishment of one or several systems of oil and gas pipelines which pass through their territories, while observing the jointly accepted rules embodied in the agreement.

The declared objective of INOGATE Agreement is to continue to provide assistance in attracting investments and financial resources, both private and public, in order to create a network of international oil pipelines from East to West, within the appropriate institutional framework. The program is in accordance with the EU policy of secure supplies and is harmonized with diverse regional programs and projects in Europe, Central Asia and the Mediterranean, on the basis of the EU Council decision of 27 April 1998 and the EU/USA common position on the Caspian basin energy issues of 18 May 1998.

Important goals of acceding to the Umbrella Agreement are:

- Commercial exploitation of oil and gas in the Caspian region through efficient transport to markets in Europe and the West;
- Elimination of inefficient national systems of oil and gas transport;
- Synchronization and technical assistance in establishing an interstate system of oil and gas transport;
- Providing guarantees to investors;
- Avoidance of global risks: political, legal, commercial, ecological.

Above set goals could be achieved through:

- Adequate technical assistance for intensification, adoption and development of both the existing energy supply network and the construction of new strategic routes;

4.3.11 EU Regulations

European Union has adopted some important energy transit related legal instruments in particular the EC Council Directive 90/547/EEC on the Transit of Electricity through Transmission Grids, 1990, and the EC Council Directive 91/296/EEC on the Transit of Natural Gas Through Grids, 1991.[89]

The main substance of these regulations seams to be identical and intended to improve the participating government's security of energy supplies through free trade, without unacceptable restrictions on competition, and at the gradual integration of national electricity and natural gas grids.

4.4 SOME IMPORTANT ARTICLES UNDER ECT, IGA AND HGA DEALING WITH ENVIRONMENTAL PROTECTION, SECURITY AND SAFETY IN A PIPELINE PROJECT ARE GIVEN BELOW:

ENVIRONMENT:

Article 19 of ECT - Environmental Aspects

..... each Contracting Party shall strive to minimize in an economically efficient manner harmful Environmental Impacts occurring either within or outside its Area from all operations within the Energy Cycle in its Area, taking proper account of safety. In doing

[89] Council Directive 91/296 /EEC of May 31,1991 on the transit of natural gas through grids, Official Journal No. L 147, 12/06/1991, p. 0037-0040.

(b) ensure compliance with such standards;

(c) consult with the other States to achieve (a) and (b) above.

2. In the event of spill, States shall provide assistance to the greatest extent possible as reasonably requested by such affected State (subject to indemnity).'

ENVIRONMENT:

The main provisions of Article- 15.1 and 15.2 of HGA- Environmental Protection and Safety:

'The environmental and safety standards applicable to the Project shall be as set forth in Appendix [...]. The Host Government agrees to the standards set forth in Appendix [...] and consents to any action taken by or on behalf of the Project Investors and other Project Participants in conformity therewith.'

Article 15. 3- Environmental Liability for clean-up costs

spillage or release causing or likely to cause "material environmental damage" or "material risk to health and safety"- immediate action required by project investors to:

a) Prevent further environmental damage, and;

b) Restore the environment to baseline conditions (including compensatory measures)

Article 15. 4

"Project Investors can make request to the Host Government for labour material equipment to assist the remedial effort".

Article 15. 5

"Host Government right to step in and recover costs from project investor."

SAFETY

Article 15-of HGA- Environmental Protection and Safety:

"1. The environmental and safety standards applicable to the Project shall be as set forth in Appendix [...]. The Host Government agrees to the standards set forth in Appendix [...] and consents to any action taken by or on behalf of the Project Investors and other Project Participants in conformity therewith."

Article 17 of HGA - Labour Standards:

"1. All employment programmes and practices applicable to citizens of the State working on the Project in the Territory, including hours of work, leave, remuneration, fringe benefits and occupational health and safety standards, shall not be less beneficial than is provided by [*insert name of* the *State*] labour legislation generally applicable to its citizenry.

2. The Project Participants shall be required to follow the employment practices or standards set out in Appendix [...] but no requirements in this regard shall be imposed on the Project Participants in addition to those set out in that Appendix."

SAFETY

Article 9- of IGA- Environmental and Safety Standards:

"1. Each State shall:

(a) establish environmental and safety standards appropriate to the conditions and environment prevailing, the relevant biosphere and in each particular geographic area traversed by the Pipeline System, which standards shall be internationally compatible and acceptable. These standards shall be at least as stringent as the World Bank Group Environmental, Health, and Safety Standards and Guidelines;

(b) ensure compliance with such standards;

(c) consult with the other States as often as necessary in order to comply with (a) and (b)."

Article 10 of IGA-Harmonization of Technical Standards:

"The States shall endeavour to harmonise their respective technical standards applicable to Project Activities."

SAFETY

Article 10- of ECT-Promotion, Protection and Treatment of Investments

Each Contracting Party shall..... encourage and create stable, equitable, favourable and transparent conditions for Investors of other Contracting Parties to Make Investments in its Area..... Such Investments shall also enjoy the most constant protection and security and no Contracting Party shall in any way impair by unreasonable or discriminatory measures their management, maintenance, use, enjoyment or disposal. .....In no case shall such Investments be accorded treatment less favourable than that required by international law, including treaty obligations. Each Contracting Party shall observe any obligations it has entered into with an Investor or an Investment of an Investor of any other Contracting Party..... Each Contracting Party shall ensure that its domestic law provides effective means for the assertion of claims and the enforcement of rights with respect to Investments, investment agreements, and investment authorizations."

Article 23 of HGA-Security

"Commencing with the initial Project Activities relating to route identification and evaluation and continuing throughout the life of the Project, the Host Government shall endeavour to ensure the safety and security of the Land Rights, the Pipeline System and all Persons within the Territory involved in Project Activities. In order to avoid or mitigate harm to the Project, the Host Government shall, on request by and

in consultation with the Project Investors, exert all lawful and reasonable endeavours to enforce any relevant provisions of its law relating to threatened and/or actual instances of Loss or Damage caused by third parties (other than Project Participants) to the Land Rights, the Pipeline System or loss or injury to Persons within the Territory involved in Project Activities."

SECURITY:

Article 8 of IGA-Non-Interruption of Project Activities:

"If any event occurs or any situation arises which there are reasonable grounds to believe threatens to interrupt, curtail or otherwise impede Project Activities (a "threat" for the purpose of this article), the State in, or in respect of whose Territory, the relevant threat has arisen, shall use all lawful and reasonable endeavours to eliminate the threat."

Article 11 of IGA- Security

"Each State shall endeavour to ensure the security of the personnel associated with Project Activities and of the Pipeline System, in each case to the extent located within its Territory, and all [Petroleum] [Natural Gas] from time to time transported within its Territory through the Pipeline System."

OIL AND GAS QUALITY ISSUES:

Article 14- of HGA- *Quality Assurance*

"The Operator shall not be required to accept any [Petroleum] [Natural Gas] to be transported in the Pipeline System if the [Petroleum] [Natural Gas] is of a quality that is incompatible with technical specifications as agreed between the Parties.

In the event that the Host Government, any State Authority *and/or* any State Entity causes, without the consent of the Operator, the Transport in any part of the Pipeline System, of any [Petroleum] [Natural Gas] of a quality that is incompatible with technical specifications as agreed between the Parties, the Host Government shall ensure that the Project Investors, the Shippers and the Operator are indemnified for all Loss or Damage resulting there-from."

Article 21 of HGA – Technical Standards:

"The technical standards applicable to the Project shall be as set forth in Appendix [...]. The Host Government agrees to the standards set forth therein and consents to any action taken by or on behalf of any Project Investor or other Project Participant in conformity therewith."

OIL AND GAS QUALITY ISSUES:

Article 10- of IGA- Harmonization of Technical Standards

"The States shall endeavor to harmonize their respective technical standards applicable to Project Activities"

CHAPTER-V

MITIGATING GEOPOLITICAL AND LEGAL RISKS OF IPI PROJECT

IPI gas pipeline project involves number of political, economic and legal risks and conflicts which may be mitigated by deploying the proper measures available under existing international legal system. Each participating Government would have to ensure that the necessary land is available and commitments would have to be in place regarding security of the pipelines and of supply of gas. For this purpose, the participating governments would have to enter into binding Inter-Government Agreements (IGA) and Host Government Agreements (HGA) including other project related agreements, which would include such legislative and administrative measures necessary to facilitate implementation and smooth operation of the transnational pipeline projects.

The use of IGA and HGA is an approach endorsed by the ECT as its stated purpose is the promotion of long term international cooperation in the energy industry. The ECT also contains proposed Model forms of HGA and IGA.[90]

The purpose of these models is to provide a balanced set of recommendations, supported by the political authority of the Charter Conference, that can be used, if individual governments and companies so wish at the time of negotiations on particular projects.

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[90]Building of Cross-border pipelines for multi-national projects, host government agreements can reduce risk and create a stable investment environment. By George Goolsby, Partner, Baker Botts LLP, Houston, Texas; and Mark Rowley, Partner, Baker Botts, London, UK

Iran, Pakistan and India may seek to mitigate risks attaching to the project, and achieve an integrated truly international project, through the use of a package of HGA for each host state and an IGA between or among the host states.

There are other model agreements under the umbrella of the IGA, such as those between individual investors/ operators and each transit country government or Model Transportation Agreements (MTA) spelling out in greater detail the rules set forth in IGA.

The use of model agreements may provide (i) an appropriate level of legal and fiscal stability needed to secure project investment in the shorter term and (ii) ensure the efficient performance of transit operations.

Some more detail about the IGA and HGA model agreements is given below in order to identify that these documents comprehensively articulated provisions covering almost every potential risk and problem which may be associated with the proposed project.

Hence, if participating governments negotiate these agreements properly they can address and mitigate maximum risks and problems attached with the project. Provisions of both IGA and HGA are summarized here in this study one by one.

5.1 Inter-Governmental Agreements (IGA)

IGA is a written agreement between two or more host countries for undertaking a multi - jurisdiction project and pursuant to IGA the countries confirm their support for the project and undertake to honor their respective HGA. Under IGA, neither project nor project sponsors are parties to it but they are the intended beneficiaries of the governmental commitments and thus will be keenly interested to confirm that the government-to-government undertakings are consistent with project requirements[91].

The IGA is similar to other bilateral or multilateral investment treaties whereby one nation invites investment by the nationals of another nation and commits to be liable, both to the other nation and to its investment nationals, for any failure to honor its obligations.

The IGA is considered a high level agreement, which incorporates the HGAs and other project Agreements by reference. IGAs are usually treaties under local and international law and are ratified or enacted into domestic law accordingly.[92]

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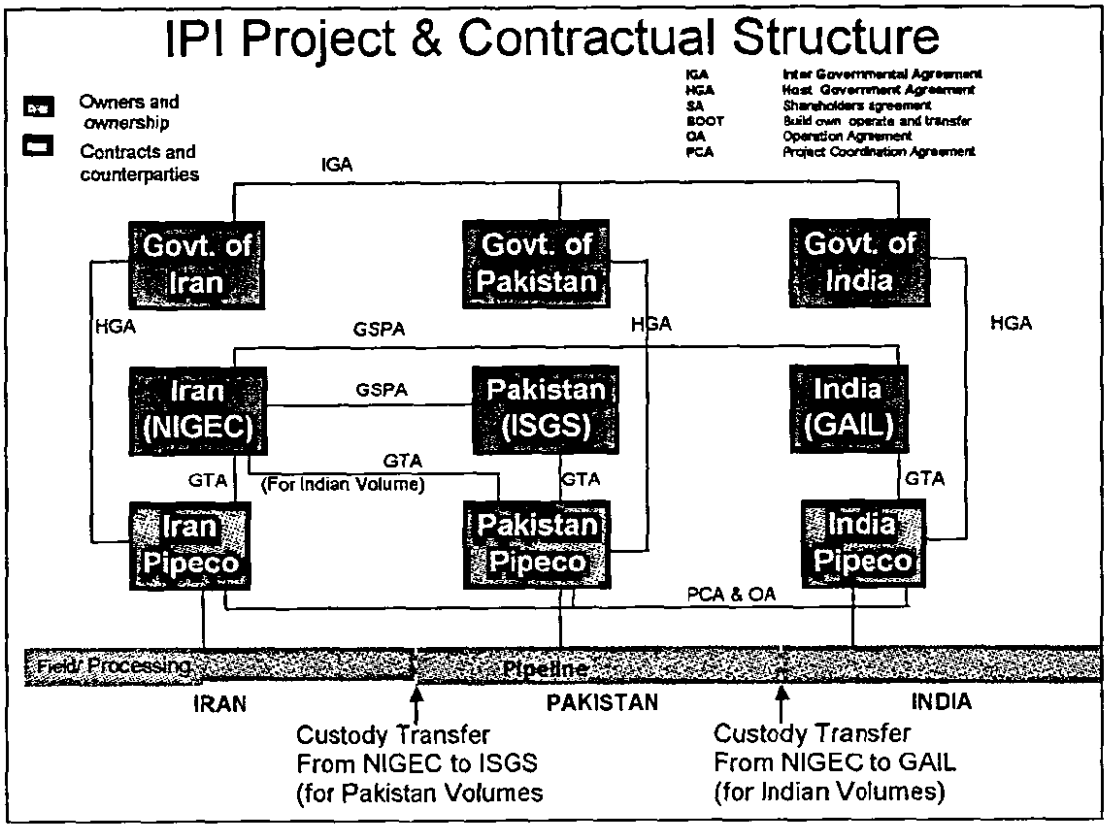
[91] *Ibid*
[92] *Ibid*

The proposed contractual structure of IPI gas pipeline project would be as given below.



Source: Import gas pipeline projects 3rd Pakistan oil & gas conference Islamabad (Feb 18-20, 2007) paper submitted by Syed Hassan Nawab.

An IGA will typically address inter-alia the following matters:

- Provisions for protection of investments in each participating host government.
- Provisions for commitment of each host country to the implementation of the project.
- Commitment of each host country to take those steps necessary to satisfy its obligation to ratify the treaty, make enabling laws, and take other steps necessary in accordance with their laws to make their promises legally binding under international and its domestic laws.

- Provisions regarding respective commitments of the host countries to guarantee performance by their state entities and agencies.
- Granting of land rights and necessary consents, permits, permissions, and authorizations.
- Provisions for commitments to freedom of transit and the free movement of project personnel and goods associated with project activities.
- Government role in providing for the safety and security of the project and the personnel engaged in project activities.
- Application of environmental, health and safety standards which promote integrated pipeline operations in all host jurisdictions.
- Facilitation of the financing of the project by multilateral and export credit banks and agencies.
- Provisions relevant to creation and maintenance of an agreed fiscal regime as among the host countries in relation to taxes, tariffs and regulation, including the agreement of the host countries respecting tax allocation principles assuring no double taxation of the project.
- Clauses for safeguarding of human rights in respect of the project and project activities.
- Provisions relevant to identification of the territory of each of the participating countries and matters of boundaries and other territorial disputes.
- Establishment of an inter-govern-mental commission or administrative committee to be the forum for government-to-government communications and the coordinated implementation of the project.

- Agreement about resolving any disputes that may arise.[93]

5.2 Host Government Agreements (HGA)

These agreements are most commonly used in less-developed regions in order to provide a clearly defined legal and fiscal framework, describing the government's regulatory role in the project and to address political risks.

Like IGA, HGA is also a written agreement between a host country (the government of the nation within whose boundaries some or all the project will be constructed and operated), and the project sponsors or project company.[94]

HGA normally contains provisions inter-alia various grants, rights, exemptions, waivers, standards and obligations that the host country is willing to offer to a potential pipeline sponsor group for undertaking the project and what, in return, the host county expects from the sponsor, for example, economic rents (taxes, duties, fees), employment opportunities etc. When used, the HGA will be the document that defines the primary legal framework for the project sponsors within a particular host country as to the matters addressed.

[93] *Ibid*
[94] *Ibid*

HGA may be an agreement which is enforceable as a contract under the relevant law, and may be ratified or otherwise enacted as part of the host country's domestic law applicable to the project.[95]

HGA addresses specific issues, which may include the following:

- Tax regime applicable to the project within each transit state, with the project sponsors seeking to avoid double taxation and otherwise wishing to clearly define and limit costs within a tax efficient structure.
- Government take associated with the project's presence in the host country.
- Grant of rights to land and commitments respecting the timing of acquisition, the right of former owners/users to use the surface once the pipeline is installed, the proper recordation and maintenance of land rights, and the legal and physical protection of those rights.
- Defining a commonly agreed set of environmental, health, safety, human rights and cultural heritage standards that will apply to the facilities while under construction, during operation, for all subsequent repairs, replacements, expansions and/or extensions, and for abandonment.
- Agreement on necessary monetary and financial rights, including banking rights, currency restrictions and repatriation rights, and rights of free movement of personnel, materials, supplies, and technology related to the project.
- Granting the right to conduct business in whatever legal form the sponsors may elect, from time to time.

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[95] *Ibid*

- Defining the scope of local regulation of the pipeline as to elements of local service, if any, and confirming the right of free transit as to volumes transiting across the host country.
- Providing for certain government commitments respecting the right of use of government controlled infrastructure and making available to the project local goods, works and services on reasonable and nondiscriminatory terms.
- Appointing a lead agency within the regulatory regime of each county and implementing other measures to streamline the application and permitting processes.[96]

Given the legal system of each host country, the IGA, being a treaty level document, will be subject to the constitution, but is likely to prevail over all other domestic laws. Therefore, the contracting states will seek to include some or all HGAs into the IGA, either by making reference thereof or by attaching the unexecuted forms of the HGAs to the IGA. By annexing the unsigned forms of HGAs to the IGA, the parties may be able to elevate the HGAs to the status of a treaty. This integration of different documents into IGA and subsequent ratification and adoption of the entire package in all, the relevant jurisdiction will give an effect to various governmental grants, covenants, guarantees, exemptions and waivers provided for in the IGA and the HGAs as the prevailing law in each host country. Elevating the entire IGA/HGA package to treaty level also an additional benefit.[97]

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[96] *Ibid*

[97] *Ibid*

In order to properly address and mitigate potential risks, problems and conflicts associated with IPI project, Iran, Pakistan and India may enter into a full-fledged IGA which incorporates the HGAs and other project Agreements by reference or attachment. This package of different documents into IGA and subsequent ratification and adoption of the entire package in all, the relevant jurisdiction will give an effect to various governmental grants, covenants, guaranties, exemptions and waivers provided for in the IGA and the HGAs as the prevailing law in each host country. Elevating the entire IGA/HGA package to treaty level also an additional benefit. Package may include the following types of Agreements:

- Production sharing agreements
- Concession agreements and licenses
- Host government agreements
- Intergovernmental agreements and treaties
- Tax protocols
- Governmental ratifications, edicts, and legislation
- Government regulations concerning health, safety, human rights, and the environment
- Dispute resolution agreements
- Agreements for intergovernmental cooperation and support
- Direct agreements to facilitate project finance
- Government guaranties

The parties to IPI project may address the above enumerated provisions in the IGA, but I still afraid that it would be difficult for India to enter into such IGA in view of Article 3 of the proposed Model form IGA attached to ECT. Article 3 of proposed Model form IGA specifically indicates that each State confirms and warrants that it is not a party to any domestic or international agreement or commitment, or bound to observe or enforce any domestic or international law, regulation or agreement that conflicts with or adversely affects the ability of such State in implementing this IGA.

I suspect India has a nuclear deal with USA which might have existing commitments conflicting to this IGA. In such a situation, it would not be possible for India to enter into the IGA.

CHAPTER-VI

CONCLUSION AND RECOMENDATIONS

6.1 The TAPI gas pipeline project is considered almost dead due to (i) instability in the political and security conditions of Afghanistan, particularly the southern part of the Afghan which continues to be under the control of Taliban and (ii) a fresh agreement executed by the government of Turkmenistan with Russian gas giant Gazprom for increased Europe-bound gas supplies at enhanced price rate.[98]

The Qatar-Pakistan gas pipeline project is also unlikely to materialize due to dedicated reserves.

6.2 The IPI gas pipeline project can be successful one if USA stops creating hurdles in its way. This is the only hurdle which may be considered more difficult to be avoided. All other potential risks, problems and conflicts associated to the project may be mitigated by properly identifying and addressing them in the IGA package. Both Pakistan and India are energy deficit countries and they can not ignore totally the economic considerations of gas import pipeline project.

6.3 Consequent upon resignation of Pervaiz Musharraf as President of Islamic Republic of Pakistan who was a great ally of USA in the war on terror, the policy of Pakistan's new elected government on this project would be definitely changed. In the past during the period of Mian Nawaz Sharif's government, the

[98] $4 bn Tap gas pipeline project in jeopardy by Khaleeq Kiani-anarticle published on 29/11/2007 in Dawn the international Edition

relationships between Pakistan and India were much improved. Both the governments were seriously considering and striving to remove the barriers existing in the way of trades between the two countries. I perceive that new political developments in Pakistan may create such an environment where all the participating countries may be able to negotiate and materialize this proposed project in a better way.

6.4 The IPI is viable but continued to move at slow pace. One of the prime reasons for this has been the immense legal and security issues involved in this project. The existing legal and regulatory framework of Pakistan does not contemplate cross-border pipeline transactions and in the absence thereof international treaties and model agreements like inter-governmental and host government agreements would have a substantive impact on the final out look of the legal frame-work of the projects.

6.5 The pipeline laid is destined to run through the territories of different sovereign states. This means that the project is destined to be exposed to different legal systems.

6.6 Though Pakistan is an observer state to the ECT. Similarly Qatar, Iran and Afghanistan are also observer states with Turkmenistan being a member state. In the context, of cross-border pipelines, the ECT may be beneficial to Pakistan and its neighbouring states. The transit provisions of the ECT oblige the contracting parties to facilitate the transit of energy on a non-discriminatory basis and

consistent with internationally recognized principle of freedom of transit. In case of a dispute, the procedures provided for under the provisions of ECT could be used to resolve the possible disputes.

6.7 Given the geo-political instability of the region, ratifying of the ECT by Pakistan and neighbouring states such as Iran, Afghanistan and India, would be of considerable value and encourage confidence building. Not only would it provide comfort to the contracting states, but also re-assurance to investors who would surely be involved in any ambitious pipeline project in our region.[99]

6.8 In recent history two types of proposed pipelines projects have been dominant, the integrated and the segmented pipeline. Integrated pipeline have not been a frequently implemented project, perhaps because of the enormous legal issues and repercussions involved in the project. Also most of such pipelines are tailor-made for the proposed location and surrounding circumstances of the pipeline. An integrated pipeline may contain other dimensions and purposes other than a mere transmission of gas. It might incorporate a gas storage, purification or condensation facilities along with transmission. In order to make the project successful the segmented model should be adopted as under this system each participating government would be obliged for the construction and maintaining security of pipeline over its territory. Keeping in view the political and other

[99] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co

security conditions of the participating states, segmented model would be considered more appropriate.[100]

6.9 The governments involved have to mutually agree first on legal procedures and requirements of the issuance of license for laying and operation of an inter-connecting pipeline. For example, one of the issues may arise that the OGRA in Pakistan does not allow an Exploration and Production company to carry out activities similar to a transmission company. This can be potential problem for the multinational companies, planning to participate in the consortium of international companies interested to bid for this project. While this is the position in Pakistan, position in Iran, Turkmenistan or Afghanistan might be completely converse.[101]

6.10 A uniform set of rules would be necessary for the requirement to bank guarantees and other financial competencies of the consortium.

6.11 The ownership of the pipeline and the land acquired on which the pipeline would be laid is another potential issue. The exact point from where the sovereign governments involved would take up the ownership of the pipeline should be determined in advance. This would clear out a number of ambiguities which might arise in case of damage to the pipeline, its maintenance and protection.

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[100] Legal and Institutional implications of cross-border water pipelines in international ,law as case study by T.Elijah Ngurare-CEPMLP Annual Review 2001-Art. 10

[101] 3rd Oil & Gas Conference 2007 at Islamabad on 18-20 Feb, 2007 by Orr. Dignam & Co

6.12 As to the necessary legal framework, a four-tiered approach is considered as the best possible, especially with respect to cross-border and transit infrastructures involving countries that lack developed legal and regulatory frameworks or present high investment risks. In such a system international (Inter-Governmental) agreements should constitute the "roof" supported by the Host Government Agreements and necessary project contracts.[102]

6.13 The governments of each participating state would have to ensure that the necessary land is available and commitments would have to be in place regarding security of the pipelines and of supply.

6.14 It is recommended that in order to mitigate potential risks and conflicts associated with IPI project and to make this project successful, Iran, Pakistan and India may enter into a full-fledged IGA, incorporating the HGAs and other project agreements by reference or attachment. Each participating state after ratification and adoption of this package in all, will give an effect to various governmental grants, covenants, guaranties, exemptions and waivers provided for in the IGA and the HGAs. Elevating the entire IGA/HGA package to treaty level also an additional benefit.

6.15 Among other things, an IGA will particularly address the following matters:[103]

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[102] Building of Cross-border pipelines for multi-national projects, host government agreements can reduce risk and create a stable investment environment. By George Goolsby, Partner, Baker Botts LLP, Houston, Texas; and Mark Rowley, Partner, Baker Botts, London, UK

[103] *Ibid*

- Protection of investments in each host country;
- Commitment of each host country to the implementation of the project.
- Commitment of each host country to take those steps necessary to satisfy its obligation to ratify the treaty, make enabling laws, and take other steps necessary in accordance with their laws to make their promises legally binding under international and its domestic laws.
- Respective commitments of the host countries to guarantee performance by their state entities and agencies.
- Granting of land rights and necessary consents, permits, permissions, and authorizations.
- Commitments to freedom of transit and the free movement of project personnel and goods associated with project activities.
- Government role in providing for the safety and security of the project and the personnel engaged in project activities.
- Application of environmental, health and safety standards which promote integrated pipeline operations in all host jurisdictions.
- Facilitation of the financing of the project by multilateral and export credit banks and agencies.
- Creation and maintenance of an agreed fiscal regime as among the host countries in relation to taxes, tariffs and regulation, including the agreement of the host countries respecting tax allocation principles assuring no double taxation of the project.

- Safeguarding of human rights in respect of the project and project activities.
- Identification of the territory of each of the participating countries and matters of boundaries and other territorial disputes.
- Establishment of an inter-govern-mental commission or administrative committee to be the forum for government-to-government communications and the coordinated implementation of the project.
- Agreement about resolving any disputes that may arise.
- Provisions to notify and cooperate in emergency situations;

2. Ministries of Petroleum resources, Pakistan, India, Iran, Turkmenistan and Qatar

3 Glossary of terms for cross-border capacity allocation by C.F. Zimmermann, Nexant Inc.

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