

**GEOPOLITICS OF OIL AND GAS PIPELINE ROUTES IN  
CENTRAL ASIA**

*Dissertation submitted to the Jawaharlal Nehru University in partial  
fulfillment of the requirements for the award of the degree of*

**MASTER OF PHILOSOPHY**

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### DECLARATION

I declare that the dissertation entitled “**Geopolitics of Oil and Gas Pipeline Routes in Central Asia**” submitted by me in partial fulfillment of the requirements of the award of the degree of **MASTER OF PHILOSOPHY** of Jawaharlal Nehru University is my own work and has not been previously submitted for any other degree of this or any University.

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### CERTIFICATE

We recommend that this dissertation may be placed before the examiners for evaluation.

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**To Mummy & Papa !**

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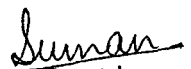
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**Suman Sonkar**

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## Abstract

“Turkestan, Afghanistan, Trans-Caucasia and Persia --- to many these names breath only a sense of utter remoteness or a memory of strange vicissitudes and of moribund romance. To me, I confess they are pieces on a chessboard upon which is played out a game for the domination of the world”.

----- *Lord Curzon* (1889)

In the 19<sup>th</sup> Century, Russia and Great Britain went head to head in a struggle for control of Central Asia. Rudyard Kipling called this competition for control of the trade routes to India the “Great Game”. To this reference, this old rivalry, the current power struggle for control over the Central Asian Caucasian hydrocarbon resources has been named the “New Great Game”. This time there are more actors involved and the price for this Great Game is control over energy reserves and their routes. Likewise in the Twentieth Century the United State’s involvement in the Gulf , whether in the name of saving Kuwait against Iraq or on the pretext of saving world from terrorism (against Afghanistan) is the corollary to Nineteenth Century Great Game for control over energy pipeline routes. The energy security primarily driven by the oil and gas, the region’s rich hydrocarbon resources have become the strategic hotspot in the world and one of these hot spots is Central Asia region.

The disintegration of Soviet Russia in 1991 gave birth to five Central Asian countries Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan, Tajikistan and three Caucasus countries Georgia, Armenia and Azerbaijan. Geographically, it is bordered by Russia in the north, the Eastern Europe in the west, Turkey, Iran, Afghanistan in the south and China in the east. The Caucasus region in Central Asia connects Europe and Asia and is the heart of the Eurasian continent. The old silk trade route passes from this region making the region of great geo-strategic importance.

### **OBJECTIVES**

The study has the following objectives:

1. Identification of major oil and gas reserves in Central Asia.

2. Analyzing the importance of oil and natural gas for socio-economic development of the region.
3. Highlighting the major existing operational routes / pipelines in Central Asia.
4. Studying the Great Power interests for exploitation of oil and natural gas reserves in Central Asia.
5. Putting forward viable options for the development of potential routes for utilization of oil and natural gas reserves in Central Asia

The present study is divided into six chapters. The first chapter is the introductory chapter, which elaborates the history of Central Asia's oil and natural gas reserve exploitation. It highlights the geo-strategic importance of this region, while exploring the great power interest in the region's oil reserves. A detailed review of literature along with possible viable options of pipelines has been discussed.

The geopolitics (location of these countries) and geo-economic (oil and gas reserves) importance of this region has brought it into the focus of global military and strategic conflicts. This region has been seen for intense competition. The major actors include US, China, and Russia, along with smaller and neighboring players like Iran, Turkey, Azerbaijan, Afghanistan, Pakistan and India. Since the break up of the Soviet Union in 1991, the Caspian Sea as well as the region surrounding it has become the focus of much attention by energy hungry countries due to its huge oil and natural gas reserves. The Caspian Sea, which is 700 hundred miles long and world's largest landlocked Sea, contains six separate hydrocarbon basin and most of these resources have not yet been exploited. Further the unresolved status of Caspian Sea has hindered exploitation of the sea's oil and natural gas resources, as well as the construction of pipeline for export of energy. The Central Asia is a landlocked region with no direct exit route for its hydrocarbons and is dependent on the neighboring countries. However, these neighbouring countries do not share cordial relations among each other because of ethnic, political and social tensions.

The second chapter deals with existing pipeline routes. It examines the capacity, conditions and limitations of existing pipelines. This chapter also deals with the current supply and future potential demand. Before the 1870s, crude oil and its products were

mostly transported in goat or ram skin bags, loaded on the camels or horses, and carried by caravan to various destinations. It was in 1878 that the Nobel brothers launched oil tankers for shipping of oil in the Caspian region. In 1883 Baku-Batumi railroad was built by Rothschild. This opened an alternative route to the West for Caspian oil. The first pipeline built in the Caspian basin was completed in 1906, and it ran from Baku to Batumi on the Black Sea. Traditionally oil and gas from Central Asia were supplied through pipeline passing through Russia. These pipelines were built by former Soviet Union and were constructed to serve the needs of Russia. Therefore, there is a need to discover new exit routes.

The proposed oil and gas pipeline routes have been discussed in the third chapter. Based on the demand and supply, this chapter attempts to suggest new pipelines especially from the viewpoint of socio-economic development of the region. It further highlights the proposed pipeline routes with their merits and demerits. Most of these oil-producing countries of the Caucasus and Central Asian region plan at least to double their oil production during the next 5-10 years and existing pipelines are inadequate, old and worn out creating environmental problems. Besides this Russian monopoly over them and using them as a political advantage have further intensified the need for new exit points. Therefore, a country with control over pipeline routes in the future will not only decide the quantity and directions of flow but will also indirectly control all the countries lying in this region politically and economically. By 2010, Central Asia and the Trans-Caucasia is expected to have over 100 million tonnes of oil and 100 billion cubic meters of gas available for export. The existing oil and gas pipeline capacity will certainly not be able to meet the future export needs. However, the development of these pipelines will depend upon the economic expenses and geographical feasibility. Currently, five pipeline routes are proposed.

The Northern route is favored by Russia because it passes through its territory and thus it will maintain monopoly over Russia, the United States, Turkey, Azerbaijan, and Georgia. These countries other than Russia would however prefer the western route. This less expensive alternative route is opposed by Russia. Eastern route is favored by China, which will be the world's longest pipeline routes, and Southern route makes sense economically and commercially. However, this pipeline is opposed by US because it has

to pass through Iranian territory and politically unstable Afghanistan. Thus the great powers are trying to make their presence felt in this region.

The fourth chapter deals with great power interests in Central Asia. An attempt is made in this chapter to analyze the interests of great powers in Central Asian oil and gas reserves particularly that of US, Russia and China. The international politics involved and the great game strategy adopted by the various players has been explored. The region had always been the bone of contention among the players of international politics. Oil is said to be the key determinant of American policy towards the Caspian region for a number of reasons. These include, preserving its dominance on international oil and establishing military bases to contain Russia and China. Russia always had historical, cultural and geographical ties with Central Asia. It maintains this region as a part of the Russian sphere of influence. Russia had a monopoly over oil export in this region. It wants to maintain the status quo even after its disintegration in 1990s. China played an important role in the new geopolitics of this region due to several factors. It shares nearly 3000 kms of strategic frontiers in Xingjian with the Central Asian states of Kazakhstan, Kyrgyzstan and Tajikistan. Moreover there is cross-border fraternization of Muslim-Turkish population inhabiting this area, which makes borders vulnerable to ethnic-religious separatism. China is a country, which is experiencing industrialization at a rapid rate is a net oil importer since 1993. Central Asia with its huge energy reserve is keen to revive the Silk Route with a different name as the Energy Silk Route. Apart from the great powers, the role of regional powers has also been equally dominant.

The fifth chapter of this study has discussed the role of regional powers at length. This chapter deals with the emergence of regional players like Iran, Turkey, Pakistan, Azerbaijan, Georgia and India's interests in Central Asia. It also highlights the interest of the regional powers keeping in view their allegiance with the great powers. India's energy is a critical component of economic growth, which in turn determines the political and social stability of nations. India's energy situation is one of increasing import dependence and secondly around 65 per cent of oil imports are from the Gulf, which is highly volatile. Iran's territory is best suited and most economical for constructing oil and gas pipelines from Central Asia and Caspian. Iran's strategic geographical location in Eurasia as a continental bridge between East, West, North, and South, has acquired great

importance for transportation of Central Asia-Caspian-hydrocarbon resources. Turkey is clearly an influential regional player in this region because of linguistic, ethnic and cultural religious affinity. For Turkey these opportunities include guaranteed access to vital energy resources as well as increased diplomatic influence and strategic importance. Pakistan's interests in the Central Asian region took off after the collapse of the former USSR. It utilizes the Islamic card ideology following anti-Indian Islamic policy.

Azerbaijan's vulnerability has wider regional implications because the country's location makes it a geopolitical pivot. It can be described as the vitally important 'cork' controlling access to the 'bottle' that contains the riches of the Caspian Sea basin and Central Asia. An independent, Turkic-speaking Azerbaijan, with pipelines running from it to the ethnically related and politically supportive Turkey, would prevent Russia from exercising a monopoly on access to the region and would thus also deprive Russia of decisive political leverage over the policies of the new Central Asian states.

Georgia is ideally situated to become a major player in the transport of oil from the Caspian for having good location and port facilities. For US, transporting oil south of the Persian Gulf through Iran was unacceptable so transporting oil through Georgia presented fewer risks than existing or potential pipelines transmitting hotbeds of ethnic tension in Chechnya, Nagorno, Karabakh, and eastern Turkey.

The concluding chapter gives a summary of the research findings with suggestions of possible viable options.

# **Chapter-I**

## **Introduction**

## **I.1 Context**

The Gulf war, Chechen conflict, Iraq war, bombing in Afghanistan, over the recent past are probably some of the best examples which demonstrate the importance of oil and gas in International politics. The geo-politics of a country reflects political strategies and tactics in regard to the internal/external affairs and political thought in accordance to its geographical position within the globe. The world today continues to depend on oil for 40 per cent of its total energy needs<sup>1</sup>. Any successful development of the global economy depends on timely and reliable energy delivery. The oil crisis of 1971-72 and the 1991 Gulf crisis have proved that dependency upon the Persian Gulf is dicey for both developing countries as well as for the west. Central Asia today emerges as an alternative and helps in reducing dependency on the Gulf countries.

Independence of the former Soviet Central Asian Republics has created a new scenario on the Asian landmass having repercussions for not only those nations who are its neighbors but also for those which are farther off. This region with its abundant potential of fossil fuel presents a picture of immense strategic importance in the entire region. The region in and around the Caspian Sea, is perhaps one of the largest and least exploited sources of oil in the world. It is estimated to possess a possible reserve estimated to be as high as 200 billion<sup>2</sup> barrels of oil product. In addition, the natural gas, which is fast becoming a preferred source of fuel, is estimated to be present with reserves as high as 7.89 trillion<sup>3</sup> cubic meters (as much as the U.S. and Mexico combined). This could certainly favor to a reduction in its dependency on the middle-east region and diversify its source of secure fuel supply. Thus, the region offers an enormous challenge and opportunity to observe and analyze the problems related to utilization and mobilization of resources.

‘Geopolitics of oil and gas pipeline routes in Central Asia’ exists as a distinct geopolitical entity with geo-economic interests stimulating global attention especially during the last decade and a half. Central Asia is expected to play an extremely important role in the

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<sup>1</sup> P. Stobdan (1999), “Building a Common Future: Indian and Uzbek Perspective on Security and Economic Issues”, Knoweldge World: Delhi, p. 120.

<sup>2</sup> Adelphi paper (1996), “The Politics of Oil in the Caucasus Central Asia”, Oxford University Press: New York, p. 6.

<sup>3</sup> Ibid.



future global security structure.<sup>4</sup> The significance of the Caspian region in the world economy and politics has been growing increasingly over the recent years, due to its vast possession of energy resources. The geo-politics of oil and gas pipeline in the region stresses upon the politics involved between various nations due to oil (160-200 billion barrels of oil making it the third largest store house of oil and gas after the Middle East and western Siberia.) and gas reserves (279 trillion cubic feet of natural gas). Its geographical location, between Asia and Europe, Russia and the Middle East, China and Iran, and its proximity to four of the world's nuclear power all contribute to its tremendous geo-strategic importance. The oil and gas pipeline has mainly two fold implications. These include the control of production of oil and gas and secondly the control of the pipelines which transfer the oil to the destination markets. In other words, the control of production and pipelines would automatically imply a control of the economy and politics of that country.

## **I.2 Area of Study**

The presence of oil and natural gas in Central Asia and Caucasus was discovered as far back as the thirteenth century.<sup>5</sup> The vast territories between the eastern shores of the Black sea and the peaks of the Pamir Range have been referred to as the "Black hole of the world" for more than seventy years during the Soviet rule. The region around the Caspian Sea (the world's largest inland lake) was isolated from the west, virtually making it inaccessible to foreigners.<sup>6</sup> The Central Asia includes Kazakhstan, Uzbekistan, Turkmenistan, Kyrgystan, Tadjikistan and the three Caucasian countries of Georgia, Armenia and Azerbaijan. Geographically, it is encircled clockwise by Russia in the north, the Eastern Europe in the west, Turkey, Iran, Afghanistan in the south and China in the east [Refer Map No.I.1] thereby making the region of great geo-strategic importance.

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<sup>4</sup> Ma Jiali (1999), "Central Asia: Geo-strategic Situation and Big Power's Polices", *Contemporary Central Asia*, 3(1): 40.

<sup>5</sup> Adelphi paper (1996), n. 2, p. 9.

<sup>6</sup> Lutz, Kleveman (2000), "The New Great Game: Blood and Oil in Central Asia", Atlantic Books: London, p.2

### Map No. 1.1

### The Caucasus and Central Asia



Source: [www.ku.edu/carrie/texts/carrie\\_books/paksoy-1/central\\_asia.gif](http://www.ku.edu/carrie/texts/carrie_books/paksoy-1/central_asia.gif)

The Caucasus region in Central Asia connects Europe and Asia and is the heart of the Eurasian continent. Geographical location of Central Asian countries reflects big power interest in this region, like the US, Russia and China. The plans and strategies have been to expand and protect the interests of these great powers rather than to uplift the region and were thus formulated in line with the size of the Central Asian countries, their location, natural resources, population and other geographical factors. With the demise of the Soviet Union in 1991, new states, not only marked the end of cold war but also gave birth to the independent Central Asian states around the Caspian Sea. It emerged with no prior experience in dealing with the vast oil and natural gas resources nor were they aware of their significant location between Europe and Asia generating great interests in the area for control as well as for foreign investment.

The term 'Central Asia' was used by Robert D. McChesney<sup>7</sup> to designate the area defined by certain permanent features of landscape, like the Caspian Sea to the west, the Tien Shan Mountain to the east and northeast and the Hindkush Mountain to the South. The Kazakh steppe (or the Oipchaq steppe – Dasht – e Oipcheq –as it is more popularly known in history) forms the northern borderland. The wide corridor lying between the great desert of Iran to the south-west and the desert of Turkmenistan links the region with the Middle East. Due to the presence of the historical Silk route in this region, it used to be a hub of personnel exchanges and material circulation in addition to being a strategic bridge for the east and the west. From the ancient times, the Central Asian region has been vulnerable to conquests by alien forces like Arabs in the late seventh and early eighth century, Mongols in the early thirteenth century and most recently, the Russians in the nineteenth century. Seventy-five percent of the area of Central Asia is desert and the rest is concentrated in scattered oasis connected by river.

### **I. 3 Problem Posed**

One of the major problems posed by these countries are that their natural resources are landlocked and in order to supply the same to energy hungry market, Central Asian countries are totally dependent on the neighboring countries. Traditionally oil and gas from Central Asia have been channeled through the Russian network of pipelines. The

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<sup>7</sup> Sheel K. Asopa (2002), "Situation Trans-Caucasus and Central Asia: Geopolitics or Geo-economics", *Contemporary Central Asia*, 6(1-2):15.

network of pipelines built by the Soviet Union were constructed keeping in mind the needs of the then Soviet Union and have now turned out to be completely inadequate for use by the newly formed Central Asian states. These pipelines in addition to being old and outdated also create environmental problems. Besides, owing to Russia's near-monopoly over them, they are too costly for the new states of Central Asia. The Russian attitude and also the condition and capacity of its pipelines have further intensified the need for investigating new exit points for the oil resources in the Caspian Sea region. Moscow has put a quota and restrictions on the tariff for the existing pipelines exercising its monopoly to control and alter the export of oil and gas from Azerbaijan, Turkmenistan and Kazakhstan. They use this access as a leverage to gain stake in whatever enterprises utilizes their network.

Most of these oil-producing countries of the Caucasus and Central Asia focus to at least double their production of oil during the next 5 to 10 years. However, the countries fear the political use of such leverages and the oil companies are under constant threat of the competition among the export routes, which would minimize tariffs. In this high-staked rivalry, the main battle is being fought for the direction of various alternative pipelines that are to be laid in the future. It is imperative that those who control the oil routes in Central Asia will impact all future directions and quantities of flow and the distribution of revenues from new production. To ensure a free flow of oil and gas to the international market a systematic and stable arrangement needs to be worked out. Under the prevailing Russian attitude and the conditions and capacity of its pipeline, the search for new exit points in the Caspian region needs to be intensified.

#### **I.4 Historical Background**

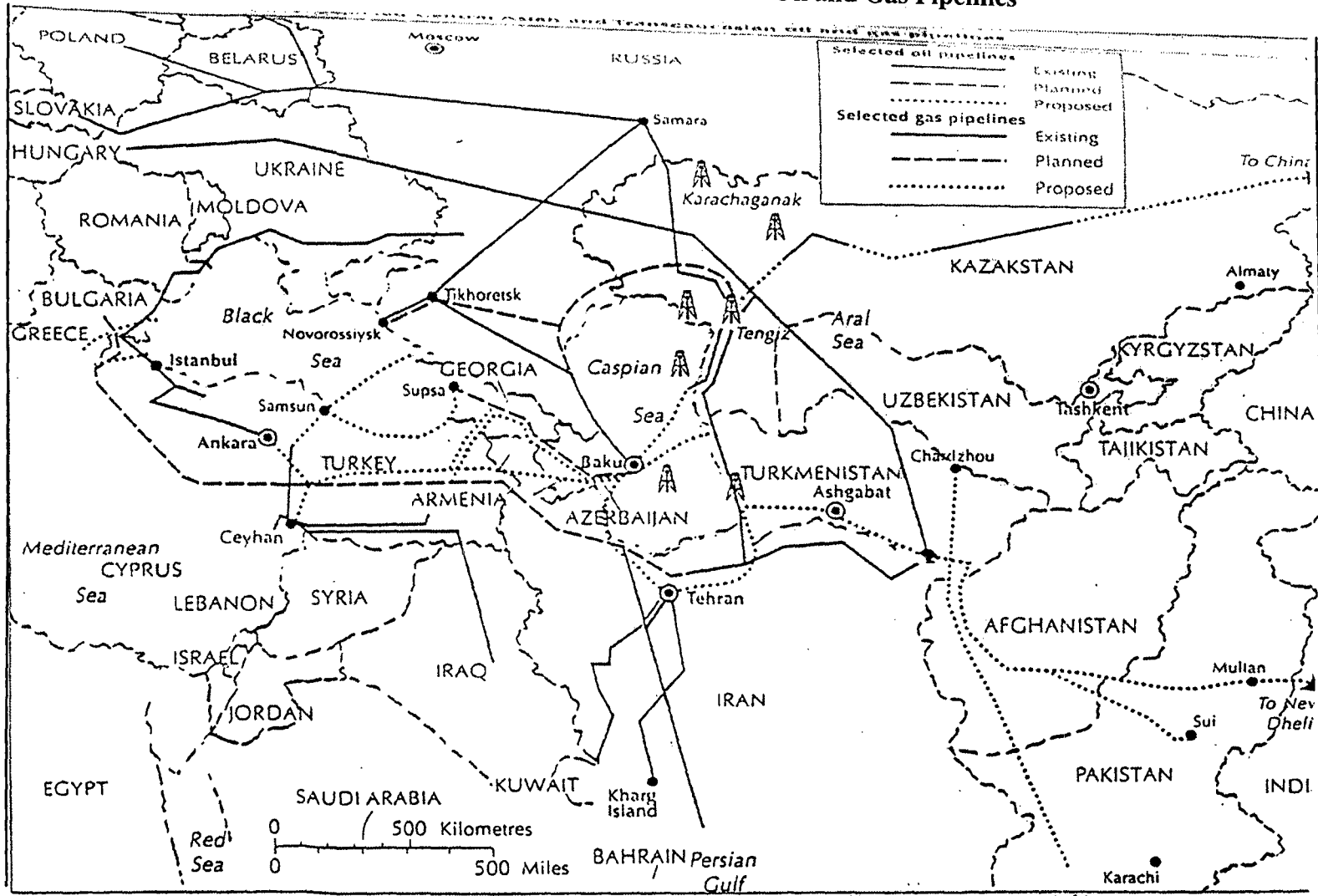
The first pipeline built in the Caspian basin was completed in 1906 and it ran from Baku to Batumi on the Black Sea. For years, it allowed the Nobel brothers and other notables to load their oil onto tankers for shipments to world markets.<sup>8</sup> One of the most significant contributions of the Nobel brothers to the Baku oil industry was the modernization of export facilities. Until the 1870s, crude oil and its products were mostly transported in

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<sup>8</sup> Michael P. Croissnat and Bulent Areas (eds.) (1999), "Oil and Geopolitics in the Caspian Sea Region", Praeger: USA, p. 45.

Map No. 1.2

Selected Central Asian and Transcaucasian Oil and Gas Pipelines



goat or ram skin bags, loaded on the camels or horses, and carried by caravan to distinct destinations. Some oil was later shipped in wooden barrels across the Caspian Sea from Baku to Astrakhan, where it was transferred to barges and transported up the Volga. This was somewhat safer than the overland route but, nevertheless, it was still a long, arduous and expensive undertaking. Ludwing Nobel had the brilliant idea of shipping oil in bulk. He commissioned a large purpose built tanker and launched it on the Caspian in 1878. It proved to be highly successful and revolutionized oil transport not only here, but throughout the world.

Soon competition over transport routes emerged. Another company, backed by the French branch of the Rothschild banking family, financed the building of the Baku-Batumi railroad. Completed in 1883, this opened an alternative route to the West for Caspian oil. In 1892, a new player Samuel & Co. (later renamed the Shell Transport and Trading Company) entered the scene with a spectacular new venture. This was the transportation of Caspian oil, in purpose-built tankers, from Batumi via the Suez Canal to Singapore, then onto the Far East. This opened up a voracious new market for Caspian oil. At the turn of the century, yet another route was mooted when the Russian government proposed the Construction of a pipeline from Baku to the Persian Gulf. However, this project was fiercely opposed by the British, who considered this region as part of their sphere of influence.<sup>9</sup>

## **I.5 Great Power Interest**

The famous heartland theory establishing the importance of Eurasia in world politics is a well-known fact. According to Mackinder, "Who rules Eastern Europe commands the Heart land, who rules the Heartland commands the worlds' island (Eurasia and Africa) and who rules the worlds' island commands the world."<sup>10</sup> The significance of Eurasia got asserted for the first time through this theory. The theory was further modified as "Who controls the rim land rules Eurasia, who rules Eurasia controls the destinies of the world".

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<sup>9</sup> Shirin Akiner (ed.) (2005), "The Caspian Politics, Energy and Security", Routledge Curzon: London & New York, p. 5.

<sup>10</sup> Asopa, n.7, p. 14.

This only shows, the subtle emphasis on "controlling the Eurasian region" in order to control the world.<sup>11</sup>

Azerbaijan (a Caucasian state) has much in common with its oil rich riparian neighbors, such as the Kazakhstan and Turkmenistan. They share bonds of language, culture, ethnicity besides the fact that their countries border the resource rich Caspian Sea - the last major untapped oil and gas reserves of the world. This region has ever since been neglected and under-utilized by the USSR. The main challenge that this region poses is to ensure an uninterrupted supply of oil and gas to the destination world. The region has always been the bone of contention among the players of international politics.

Oil is said to be the key determinant of American policy towards the Caspian region. The United States comparatively is poor in terms of energy resources but is the largest consumer of energy. The United States possesses only three percent of the worlds known oil reserves. It is believed that imports account for 60 percent of America's daily oil consumption, out of which 13 percent comes from the Gulf States alone. It is estimated that the Gulf States together produce 18 percent of the world's supply of oil.

The US policy objective is guided by the following points:

- U.S. has no history of any engagement in the region prior to 1991.
- Subsequent disintegration of Soviet Union provided a good opportunity to the U.S. intending to fill up the political as well as economic vacuum of the region.
- U.S. would certainly not want the Russians renewal of influence and controls through pipelines in this geographical region.
- China's new emerging super power is equally unwelcome in this region from the U.S. viewpoint.

The U.S. policy also takes into account the possible emergence of Islamic fundamentalism in these Muslim dominated countries, particularly after 9/11 incident. It tends to prevent this emergence as they may subvert Central Asian governments and in turn harm U.S. interests. The United States contemplates to offer an alternative to

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<sup>11</sup> Ibid., p.14.

Russian dominance for these countries. They also want to ensure that the U.S. companies market for energy as well as other resources.

Russia as the chief successor state of the former Soviet Union happens to be the most important among the new republics in Central Asia. With its multidimensional interest i.e. economic and political, over this region Russia takes a multidirectional policy on the issue. At the foremost Russia intends to perpetuate its dimension over the Commonwealth of Independent States and eventually over the Central Asian Republics. It intends to assign a reduced level of sovereignty for these countries and have a political and military control over the region mainly as a concern for its own security. Russia is under the constant threat, of being ousted from its traditional sphere of influence over the region. Russian heads of state have repeatedly expressed their intentions to not only go for an economic unity among these countries but also expressed to go for military and political reunion. Russia's tangible oil interest is also at stake because of several competitors in this region. Russia intends to regain its control by hook or crook. Before 1991, this region was an earner of hard currency for Russia and almost fifty percent revenue came from oil and gas pipelines.<sup>12</sup> Therefore, there is a desperate bid on part of the Russian economy to turn all pipeline routes within its own arena. Russia also intends to ensure a dominant role in all oil related transactions of this region.

China on the other hand is the world's fifth largest oil producing country.<sup>13</sup> Nevertheless, by 1993, it became a net oil importing country<sup>14</sup> in order to meet its rising energy demands. As such, China has economic and political interest over Central Asia. With a tremendous increase in its size in 1990s, China's economy is predicted to at least double itself in the coming decade.<sup>15</sup> During 2000, it is estimated that China alone had accounted for 40 percent of the growth in the world oil demand.<sup>16</sup> The Industrial power consumption (70 percent of the total) has grown by 10 percent this year.

The Chinese foreign policy driven by an increase in the demand of oil had resulted in buying 16 percent of all shares in Kazakhstan's third largest oil field of Aktubinsk in the

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<sup>12</sup> Internet : <http://www.worldpress.org/specials/pp/front.htm>

<sup>13</sup> Internet: <http://wsws.org/articles/2001/jan2001/oil-j03.shtml>

<sup>14</sup> Siddarth Varadarajan, 'India and China: Rivals or Partners ?' in I P Khosla (ed.), "Energy and Diplomacy", Konark Publisher, New Delhi, 1995, p.147.

<sup>15</sup> Internet: <http://www.wsws.org/articles/1999/nov1999/oil-n30.shtml>

<sup>16</sup> Siddarth Varadarajan, op. cit.



year 1997. Soon afterwards, China bought two additional oil fields and reached an agreement with the Kazakh government to build a 1250-mile long pipeline. This was to be constructed from the Caspian Sea through the Kazakh steppes to Urumaqui, capital of the western province of Xinziang.<sup>17</sup> [Refer Map No. 3.5]

Its interest in the area is further intensified due to close proximity to the Xinjiang state, which is supposed to be rich in oil reserves. China's enormous rise in energy consumption has led to a long-term policy orientation towards Central Asian oil. The political instability in Xinjiang has forced China towards a political orientation in the said region mainly out of fear for US intervention. Neither Russia nor China wants political and economic domination in the strategically important region.

From the energy security point of view, India's growing dependency on oil imports can lead to an increase in the vulnerability in terms of supply interruptions. Political instability in West Asia, that India had witnessed during the Gulf crisis of 90-91, can severely disrupt the energy supply, throwing the Indian economy totally out of gear. So the best viable option before India for its oil and gas demand is to depend upon Central Asia for its industrial growth. In order to avoid this kind of crisis in the future, Central Asia would be an interesting option, within the context of India's long-term energy policy and provide a valuable source of supply diversification. According to the Tata Energy Research Institute (TERI), India's reserves of crude oil were 727 million tons in 1996 and India's energy consumption is projected to more than double by 2020.<sup>18</sup> The Indian domestic production has failed to keep pace with this rapid rate of growth; dependence for oil import has risen from 44 percent in 1991 to over 70 percent in 2001.<sup>19</sup> India also evidently holds the deciding voice as to whether the projected Turkmen-Afghan-Pakistani pipeline will ever materialize.<sup>20</sup>

Japan is another aspirant for power and influence in Central Asian region but its bilateral relationship with the United States limits its capability to move about independently in the region. Ukraine on the other hand has access to Black sea; Azerbaijan has a vast oil

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<sup>17</sup> Luzts Klevevan "The New great Game: Blood and oil in Central Asia", Atlantic Books: London, p.90.

<sup>18</sup> Pierre Andinet et all (eds.) (2000), "India's energy", Manohar Publication: New Delhi, p.239.

<sup>19</sup> 'Asian Energy Markets: Dynamics and Trends' (2004), The Emirates Centre for Strategic Studies and Research, p.333.

<sup>20</sup> Ariel Cohen (ed.) (2005), "Eurasia in Balance: The US and Regional Power Shift", Ashgate Publishing Ltd: Aldershot, p.190.

resource, with a share of the Caspian Sea. Influence of culture, ethnicity and language gives Turkey the added advantage while Iran's linguistic and religious ties with Tajikistan, blends well with the region.

## **I.6 Production**

The Caspian-Caucasus is one of those regions in the world with a long history of oil involvement. Exploitation of oil by collection from springs and shallow pits was a regular feature according to the earliest historical records.<sup>21</sup> Oil reserves of the Caspian region i.e., Azerbaijan, Kazakhstan and Turkmenistan are likely to possess 25 to 30 billion barrels of oil. The discovered volume alone would make the Caspian region comparable to the North Sea as an oil province.<sup>22</sup> However, the estimated measures of Caspian area oil and gas reserves vary. This is because of a lack of reliable information and varying interpretations of the existing data. Estimates also show changes from one year to the next without a clear explanation through new discoveries and productions. The pool of geological and information keeps growing, warranting at times major revisions of prior conclusions. The estimates of Caspian area oil and gas reserves by the local government tend to be rosier than that given by foreign companies or independent experts.<sup>23</sup> There are spectrums of data from various sources, regarding estimates of oil and natural gas reserves in the region, several of which turn out to be misleading and fictional.

Russian experts often refer to the old geological survey made in the Soviet era indicating no such enormous oil reserves existing in the region. Estimates, suggest there are about 850 million tones of oil and 8.7 trillion cubic meter of natural gas in the region.<sup>24</sup> The Caspian Sea area is particularly believed to be rich in oil deposits. However, recent geophysical estimates indicate that the area holds far more than the Soviet estimate of 10 billion barrels.<sup>25</sup> Some estimates, mainly the western ones, indicate the "ultimate recoverable reserves in the Caspian basin to the tune of 160 – 200 billion barrels of oil

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<sup>21</sup> Bulent Gokay (1999), "History of Oil Development in the Caspian Basin in Michael P. Croissant and Bulent Aras (eds) *Oil and Geopolitics in the Caspian Sea Region*, Praeger: USA, p. 3.

<sup>22</sup> Laurent Ruseckas (2000), "Caspian Energy Resources: Implications for the Arab Gulf" The Emirates Center for Strategic Studies and Research, p. 13.

<sup>23</sup> Hooshang Amirahmadi (2000), "The Caspian Region at a Crossroad: Challenges of a New Frontier of Energy and Development, Macmillan Press: London, p. 56.

<sup>24</sup> Sheel K. Asopa, n.7, p. 25.

<sup>25</sup> Adelphi paper, n.2, p. 11.

equivalent, suggesting that this region is the third largest store house of oil and gas after middle East and Western Siberia"<sup>26</sup>

**Table No. 1.1**  
**Estimates of Recoverable Oil and Gas Resources**

Country	Proven Oil (billion barrels)	Possible Oil (billion barrels)	Total	Proven Gas (trillion cubic metres)	Possible Gas (trillion cubic metres)
Kazakhstan	10.0	85.0	95.0	1.5	2.5
Turkmenistan	1.5	32.0	33.5	4.4	4.5
Uzbekistan	0.2	1.0	1.2	2.1	1.0

Source: Ariel Cohen, "US policy in the Caucasus and Central Asia: Building a new 'Silk Route' to Economic Prosperity" accessed at <http://www.heritage.org/Research/RussiaandEurasia/BG1132.cfm>

Natural Gas on the other hand is considered as energy of the future.<sup>27</sup> It is environmentally clean; it emits 60 percent lower carbon dioxide than coal and 42 per cent less than oil for a comparable unit of consumption, and so it will be the most preferred energy source in the post-Kyoto world.<sup>28</sup> Turkmenistan is the gas giant of Central Asia. The country has the world's 11<sup>th</sup> largest gas reserves, amounting to 2.834 Trillion Cubic Meters.<sup>29</sup> Uzbekistan happens to be the third largest gas producer among the Central Asian republics (CARs) and figures as one of the top ten gas producers of the world.

## **I.7 Consumption**

As the worldwide demand for oil and gas increases by the day, so do the fears' of energy security for the consuming countries. These countries whether from the developed world, like the USA and Europe or the developing part like India and China, are still overly

<sup>26</sup> G. Ghufrin (1999), "The Caspian Sea Basin: The Security Dimension", SIPRI Year Book, Oxford University Press: London, p. 123.

<sup>27</sup> I P. Khosla (2005), "Energy and Diplomacy", Konark Publishers: New Delhi, p. 3.

<sup>28</sup> Ibid., p.3.

<sup>29</sup> K. Santhanam and Ramakant Dwivedi (eds.) (2004), "India and Central Asia: Advancing the Common Interests, Anamaya Publishers: New Delhi, p.121.

dependent on hydrocarbon resources and will continue to do so for some time in the future.

The U.S. has only 3 % of the world's known oil reserves. Imports account for 60 % of America's daily oil consumption, 13 % of which comes from the Persian Gulf states. The Gulf States together produce 18 % of the world's supply. With less than 5 % of the world's population, the U.S. accounts for over 25 % of the world's oil consumption.<sup>30</sup> Given an option the United States would like to control the oil in the Caspian Sea and Central Asian region in order to reduce their dependency on oil from the Persian/ Arabian Gulf - an area beyond their control. Consumption in the developing world too is rapidly increasing. It is believed that China and India's consumption of petroleum products is set to grow by five per cent and seven per cent respectively.

## **I.8 Viable Options**

Keeping the above in mind, one could focus on four viable options for oil exploration. [Refer Map No. 3.1] These are:

- The Northern Route: Expansion of existing pipeline links between Kazakhstan and Russia leading to a further linking to Azerbaijan from Baku to Novorossiysk. This route is a most favored route by Russia.
- The Western Route: This is supposed to bring oil from Georgian port of Supsa, and then ship it through Black Sea to Europe via Bosphorus. This route is favored by Turkey, Azerbaijan, Georgia and U.S. An alternative route is also suggested by passing Bosphorus and linking with the Bulgarian port of Borgas to the Greek port of Alexander Poras.
- The Southern Route: It is a well known fact that growth of energy demand will remain strong for Asia. It is in everyone's interest that there are adequate supplies for Asia's increasing energy requirements. If Asia's energy needs are not satisfied, this will simply put pressure on the world market driving prices to rise everywhere. The key question is how the energy resources of Central Asia can be made available to satisfy the

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<sup>30</sup> <http://www.peacenowar.net/Nov%208%2001--Oil.htm>

energy needs of nearby Asian markets. There are two possible solutions. The Trans Afghan pipeline passing through Turkmenistan, Afghanistan, Pakistan, which could also be extended to India and secondly the pipeline from Azerbaijan to the Arabian Sea in order to transport Caspian oil to the Subcontinent and one of the fastest growing consumption center<sup>31</sup>.

- The Eastern Route: The largest and the costliest route proposed are supposed to pass through a 2000 km stretch in Kazakhstan before entering China in the east. This route which is also expected to link the emerging oil fields of Xinjiang is expected to meet the rising demand for oil in China. It is but natural that China would look forward to this proposal. China would consider it as a strategic decision and hence would be willing to implement it with the hope of utilizing the eastern and the southeast part of Asia in its hinterland area.

The break-up of the Soviet Union provided the backdrop for a new geopolitical dynamics of hydrocarbons in the post-Cold war international order. In addition, the geographical position of the newly independent republics of the Caspian basin-bordering Afghanistan, Iran, Russia, China and the Middle East-became even more relevant.

The feasibility of each route depends not only on the financial costs involved, but also on the security and political factors. These plans have their own difficulties like financing such costly international projects, the political risks, and uncertainties over the volume of hydrocarbons.<sup>32</sup> However, this route suffers as a result of excessive cost of construction of pipelines and transport cost, with serious security concerns. The environmental concerns are also weighty. Southern route suffers from the problem of political instability in Afghanistan. An alternative to this was proposed through Iran, which is vetoed by the U.S. The shortcoming of the northern route is the fear of excessive Russian control over the pipeline route.

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<sup>31</sup> "Uzbekistan, Azerbaijan can join pipeline project: India", *The Hindu*, New Delhi, 27 November 2005.

<sup>32</sup> Roy Allison and Lena Jonson (eds) (2002), "Central Asian Security: The New International Context", Brookings Institution Press: London, p. 102

## I.9 Gas Pipeline Routes

In terms of gas pipeline routes, the nearest viable markets face tremendous geopolitical challenges as well as market issues. The proposed Eurasia Natural Gas Pipeline is supposed to transport gas from Turkmenistan directly across the Caspian Sea through Azerbaijan, Georgia and Turkey. Sixty percent of this proposed gas pipeline would follow the same route as the oil pipeline proposed to run from Baku to Ceyhan.<sup>33</sup> Russian energy giant Gazprom and German firms signed a deal to build a \$5 billion pipeline linking Russia and Germany. The North European gas pipeline will allow the world's largest gas reserves to be piped directly to the West European market.<sup>34</sup>

The Central Asia Pipeline, Ltd. (Cent Gas) consortium was formed to develop a gas pipeline that will link Turkmenistan's vast natural gas reserves in the Dauletabad Field with markets in Pakistan and possibly India. The proposed 790-mile pipeline will open up new markets for this gas, travelling from Turkmenistan through Afghanistan to Multan and Pakistan.<sup>35</sup> There is already a trilateral agreement for the Turkmen-Afghan-Pakistan (TAP) gas pipeline from Daulatabad in Turkmenistan to Herat and then Multan. The project cost is \$ 2.5 Billion and the capacity will be 70 billion cubic feet of gas per annum.<sup>36</sup> The same view was expressed by the Petroleum Minister, Manishankar Aiyar during an interaction with Idriz Rzabeyov, head of the Energy department, Ministry of Energy, Azerbaijan that TAP (Turkmen-Afghan-Pakistan) pipeline originate in Azerbaijan and end in India.<sup>37</sup> India, Iran and Pakistan to build a gas pipeline from Iran's Paras field through Pakistan to India. Russia also supports the proposal to build a gas pipeline from Turkmenistan to Pakistan and India via Afghanistan, as it would divert Turkmen gas from the US-lobbied Baku-Tbilisi-Ceyhan pipeline.<sup>38</sup> The same source of information also states that India and Pakistan was agreeable to give a final shape to the project structure and framework Iran-Pakistan-India (IPI) gas pipeline by April 2006.

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<sup>33</sup> <http://www.wcc-coe.org/wcc/behindthenews/analysis17.html>

<sup>34</sup> "Germany, Russia signed gas deal", *The Hindu*, New Delhi, 9 September 2005.

<sup>35</sup> Ibid.

<sup>36</sup> Siddharth Varadarajan, "Those with Pipelines Call the Tunes", *The Hindu*, New Delhi, 2 November 2004.

<sup>37</sup> "Uzbekistan, Azerbaijan Can join pipeline project: India", *The Hindu*, New Delhi, 27 November 2005.

<sup>38</sup> Vladimir Radyuhin, "Russia sees energy as a key to unlock Asian doors", *The Hindu*, New Delhi, 19 December 2005.

This pipeline could begin in 2007 and end by 2010. And the initial estimate was 90 million cubic meters of gas – 30 million for Pakistan and 60 million for India.<sup>39</sup>

## **I.10 Literature Review**

The historical background of oil production and its crucial role in the first and the second world wars have been studied by several scholars. Among the pioneering works, the Adelphi Paper<sup>40</sup> has been the basis for most of the studies. The study portrays some of the important energy reserves and attempts to present the pipeline politics involved in the region. It elaborates Russia's drive-off hegemony dominance in the region highlighting the influence of other minor players like Turkey, Iran and China and their historical links to the inhabitants of the region. It spells out the politics of several great power interest groups in the exploitation of oil and natural gas reserves in the region. The issues of implicating the prospects and possibilities of the proposed pipeline routes have also been dealt with. The paper however ignores the Central Asian complexities of the regions diplomatic, military, political and religious dimensions. Considering only the western viewpoint, the study reflects the on going of a new great game. United States has been portrayed to be pitted in a struggle for dominance of the Caspian energy reserves and its pipelines with Russia, China, India, Pakistan and Iran, most of them being nuclear powers.

The politics involved in oil production among the players such as the US, China, Russia and Iran who has all been trying to construct pipelines to serve their interests has been elaborately studied by several scholars. Among them Kleveman<sup>41</sup>, who traveled extensively in the Caspian and Central Asian region gives the current scenario on the basis of his several meetings with oil barons, generals and diplomats. In the light of the Central Asian energy reserves, Kleveman's work states an estimated production of oil and natural gas reserves in the region. . The study provides country wise information and presents the Central Asian preference of oil and gas pipeline routes and the dilemma of choosing a favourable country. However, the study is based on a narrower concept and

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<sup>39</sup> Amit Baruah, "India, Pakistan agree on gas pipeline project", *The Hindu*, New Delhi, 18 December 2005.

<sup>40</sup> Adelphi paper (1996), "The politics of Oil in the Caucasus Central Asia", Oxford University Press: New York, p.9.

<sup>41</sup> Lutz Kleveman, n.17, pp. 6-61.

considers issues from a single economic viewpoint like the race for oil, the great power competition and the internal jostling for control. The same has also been studied by Stobdan<sup>42</sup> and several others who divulged into the prospects of oil exploration and the great power interest. Stobdan also explicitly unravels how India as a neighbor of Central Asia, can benefit from the Caspian region. He states that, India has always had a deep and abiding relationship with the region. After disintegration of Soviet Union, India can strengthen its historical ties and reduce its energy dependency from the Persian Gulf. His work vividly provides information about the possible oil and gas pipeline routes, which could be developed in north India. India can obtain oil and gas from Kazakhstan and Turkmenistan. The route under focus was particularly being studied by China and Japan as to how India can obtain oil through the Xinziang province without passing through both Pakistan and the politically unstable Afghanistan. This point has been taken up distinctively through his observations of the energy pipeline routes from Xinziang's Tarim Basin via Karakoram Pass to Delhi.

Although China had started building up the world's longest oil and gas pipeline routes but unfortunately, the study ignores the region's difficult terrain, where construction of pipeline would lead to biological imbalances. He further explains the US strategy and development of several proposed pipeline routes, their legal and political standing in the region. His work reveals the Indian and Chinese options for possible pipelines to be developed from this region to the areas of political significance. However, a detailed study of their feasibility and technicalities has not been spelt out. On the other hand, Olcott's<sup>43</sup> view states that control of energy supplies remain as a potentially effective Russian tool. According to him, this region is usually examined in the scope of the prospects of exploitation of hydrocarbons, as well as the existing contradiction between local, regional players like Iran, Turkey, Pakistan, India and global players like US, China. This point has been attested by Rumor et al<sup>44</sup>. It states that the prospects of closer

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<sup>42</sup> P. Stobdan (1999), 'Geopolitics of Oil in Central Asia: Options for India' in *Building a Common Future: Indian and Uzbek Perspectives on Security and Economic Issues* by P. Stobdan (ed.), Knowledge World, IDSA: New Delhi, pp.113-69.

<sup>43</sup> Martha Brill Olcott (2005), "Central Asia's Second Chance", The Brookings Institution: Washington, p.52-82.

<sup>44</sup> Boris Rumor and Stanislav Zhukov (2003), "Between Two Gravitational Poles: Russia and China" in *Central Asia: The Challenges of Independence* by Boris Rumor and Stanislav Zhukov (eds.), M E Sharpe: USA, pp.153-66.



economic ties between Kazakhstan and China are becoming clarified in the light of Beijing's growing, and increasingly transparent, interests in the oil resources of Kazakhstan. He further adds that this region is the source of separatist nationalism in the Western Province of China. China plans to spend 3.5 billion dollars on a 3000 km pipeline linking western Kazakhstan, the side of the Aktubinsk oil field with China's Xinziang region. Several other scholars like Mattoo<sup>45</sup>, Blank<sup>46</sup> and others, have focused mainly on issues related to the US energy interests in Central Asia.

However most of the works such as, Jonson<sup>47</sup>, Blank<sup>48</sup>, Xing<sup>49</sup>, Herzig<sup>50</sup>, Winroo<sup>51</sup>, Cornell<sup>52</sup>, Joshi<sup>53</sup>, and others have dealt with the prospects of oil exploration from the viewpoints of great power interest like the US, Russia, China and others. Jonson clearly points out that control over oil and natural gas in the region is a strong factor for Russia. The author recounts several important factors that determined Russia's policy towards Central Asia like military and security relations, weaknesses of the border region particularly between Kazakhstan and Russia leading to drug trafficking, smuggling and legal trespassing. Significant presence of Russian population in the region of Kazakhstan is also a major contending factor for other neighboring countries like China, Iran and Turkey and in influencing to shape up the Russian strategy and concern. In addition,

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<sup>45</sup> Amitabh Mattoo (2003), "United States of America and Central Asia: Beginning of the Great Game" in "Central Asia: The Great Game Replayed, an Indian Perspective" by Nirmala Joshi (eds.), New Century Publication, New Delhi, pp.47-66.

<sup>46</sup> Stephen J. Blank (1999), "The United States: Washington New Frontier in the Trans-Caspian" in *Oil and Geopolitics in the Caspian Sea Region* by Michael P. Croissant and Bulent Aras (eds.), Praeger Publishers; USA, pp.249-76.

<sup>47</sup> Lena Jonson (2002) "Russia and Central Asia" in 'Central Asian Security: The New International Context' by Roy Allison and Lena Jonson (eds.), Brookings Institution Press: Washington, pp.95-126.

<sup>48</sup> Blank, Stephen (2002) "The United States and Central Asia" in *Central Asian Security: The New International Context* by Roy Allison and Lena Jonson (Edt.), Brookings Institution Press, Washington, pp.127-51.

<sup>49</sup> Guangcheng Xing (2002), "China and Central Asia" in *Central Asian Security: The New International Context* by Roy Allison and Lena Jonson (eds.), Brookings Institution Press, Washington, pp.152-70.

<sup>50</sup> Edmund Herzig (2002), "Iran and Central Asia" in *Central Asian Security: The New International Context* by Roy Allison and Lena Jonson (eds.), Brookings Institution Press, Washington, pp.171-98.

<sup>51</sup> Gareth M. Winroo (2002), "Turkey and Central Asia" in *Central Asian Security: The New International Context* by Roy Allison and Lena Jonson (eds.), Brookings Institution Press, Washington, pp.199-218.

<sup>52</sup> Savante E. Cornell (2004), "Regional Politics in Central Asia: The Changing roles of Iran, Turkey, Pakistan and China" in *India and Central Asia* by Indranil Banerji (ed.), Brunel Academic Publishers Ltd: UK, pp.154-178.

<sup>53</sup> Nirmala Joshi (2004), "Energy politics in the Caspian Region" in Indranil Banerji (ed.), Brunel Academic Publishers Ltd: UK, pp.234-55.

Naumkin<sup>54</sup> reveals that Russia projects Central Asia not to be in possession of such enormous oil and gas reserves so that big powers like US and China should not take any serious note regarding this region and Russia will continue to enjoy its influence over the region.

The US concern to control pipelines in the region and exclude Russia and Iran as far as possible has been observed by Blank<sup>55</sup>. His work focuses on the strategic factors of US policy rather than the economic factors. Das<sup>56</sup> on the other hand specifically focuses on the US interests and politics in Central Asia with special reference to the Post-September 11 developments. The article also examines the major power reaction with regard to the US permanent military deployment base in Central Asia. US argued for the pipeline from Baku to Ceyhan in Turkey as one of the multiple roots. Among the role of other major players, Xing<sup>57</sup> has depicted the long-term strategic games of China with Central Asia. The work puts forward the view that unlike the US and Russia, China cannot be a major economic contender for oil in this region, hence its policy should be directed towards building a closer tie-up with the Central Asian states as it acts as a bridge between the east and the west. Herzig<sup>58</sup> spells out clearly about Iran's economy, which is heavily dependent on its oil resources but unfortunately, there exists no pattern of trade between Iran and Central Asia. Winroo<sup>59</sup> highlights the interests of Turkey in Central Asia as a result of the great presence of Turkish population in Central Asia. This poses a strong challenge from the viewpoint of Islamic fundamentalism and domination of other states. Cornell<sup>60</sup> describes the presence of US in close proximity of Iran's border in Afghanistan and Iraq got Iran worried to the extent of inviting changes in the Iranian policy in Central Asia. This has been described "as a combination of defensive caution and limited containment of the US on its borders". Joshi<sup>61</sup> discusses the energy politics in the region from the viewpoint of US and Russia. It also highlights India's interest in the region.

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<sup>54</sup> Vitaly V. Naumkin (2000), Italian Military Centre for Strategic Studies, no.2/2000, p.5.

<sup>55</sup> Blank (2002) op cit

<sup>56</sup> Bijaya Kumar Das (2004), "US Interests in Central Asia Since the Disintegration of Soviet Union", *Journal of Peace Studies*, 2(2): 14-35.

<sup>57</sup> Xing (2002) op cit

<sup>58</sup> Herzing (2002) op cit

<sup>59</sup> Winroo (2002) op cit

<sup>60</sup> Cornell (2004) op cit

<sup>61</sup> Joshi (2004) op cit

Quoting Yessimbekov<sup>62</sup>, the official chief planner for oil pipelines in Kazakhstan, “The Chinese have once again become very aggressive. They are trying at all costs to enter into Kazakhstan ....this war is about us - it is our oil that they want.” Rumor et al<sup>63</sup> provides a short economic description of the region and individual countries. It is clearly the rich reserves of hydrocarbons that bestow global significance on Central Asia and especially Turkmenistan and Kazakhstan followed by Uzbekistan, which has more modest reserves of oil and natural gas. He further adds that the keys to economic growth in the region actually lay beyond its boundaries. China has been engaged in intensive exploration and production of oil in its Xinjiang region. This view has been attested by Warikoo.<sup>64</sup> Some scholars like James<sup>65</sup> examine emerging economic relations within Central Asia and Xinjiang, with a focus on the lucrative oil and gas sectors. Centuries-old cultural and ethnic ties are influencing the cooperation. From the Russian viewpoint, Kaushik<sup>66</sup> expresses that, Russia’s relation with Central Asia are older than the birth of the Soviet power in 1917. He focuses on historical, cultural and geopolitical ties with Central Asia and how the Post-September 11 scenario changed the character of pipeline politics. His study on oil reserves in the Caspian shelf are exaggerated in order to justify extension of American and Western political influence in the Caspian and the Caucasus region. Muni and Pant<sup>67</sup> have portrayed India’s policy towards Central Asian republics with an objective of ensuring energy supplies. The supply of oil can be routed either through China or through Afghanistan and Pakistan, or through Iran if feasible. Asopa<sup>68</sup> discusses the existing pipeline conditions and capacity and why the need for new construction of a

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<sup>62</sup> Lutz Klevevan (2003), “The New Oil Dordo: Kazakhstan” in Lutz Klevevan *The New great Game: Blood and oil in Central Asia*, Atlantic Books; London, p.91.

<sup>63</sup> Boris Rumor and Stanislav Zhukov (2000), “The Geo-economics Significance of Central Asia” in *Central Asia: The Challenges of independence* by Boris Rumor and Stanislav Zhukov (eds.), M E Sharpe: USA, pp.19-27.

<sup>64</sup> K. Warikoo (2000), “Central Asia and China: The Geopolitical Imperatives” in *Geopolitics and Energy resources in Central Asia and Caspian Sea Region* by Shamas-ud-din (eds.), Lancers Book: New Delhi, p.262.

<sup>65</sup> James P. Dorian et all (1997), “Central Asia and Xinziang, China: Emerging Energy, Economic and Ethnic Relations”, *Central Asian Survey*, 16(4): 461-86.

<sup>66</sup> Devendra Kaushik (1999), “The New Geopolitics of Central Asia: Russia, China and India”, *Contemporary Central Asia*, 3(2): 13-20.

<sup>67</sup> S.D. Muni and Girijesh Pant (eds.) (2005), “India’s Energy Security: Prospects for Cooperation with Extended Neighbourhood”, Rupa and Co.: New Delhi, pp.3-27.

<sup>68</sup> Asopa (2001), n.7, pp.1-29.

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pipeline. Nanay<sup>69</sup> answers the common question why are western oil and gas companies so attracted to the Caspian Basin. Gidadhubli<sup>70</sup> suggests that after disintegration the northern route has given a great advantage to Russia while making the Central Asian states dependent on Russia for their export needs. On the other hand, Asopa mentions that the existing Russian pipelines capacity and conditions are inadequate for a significant increase in oil volume. In addition, he states that the existing oil pipeline network has four major sections, consisting of one import line from Russia and three export lines. Currently the flow of oil and gas in the Central Asian region flows through the existing pipeline route. In the Adelphi paper, monopoly by any one country on all future pipelines has been stated to give leverage that neither the Caspian countries nor the international oil companies would want. Scholars like Nalin<sup>71</sup> states that the geographical limits and dependency over expensive pipelines through foreign territories are chief means of transporting their energy. He also suggests that, none of the possible routes under consideration can avoid the zone of ethnic conflict. Becker<sup>72</sup> proposed four alternative export routes in the west, one northern route where maximum area passes through the Russian territory and an eastern route towards China. On the other, hand Zhulaman et al<sup>73</sup>, Miyamoto<sup>74</sup>, Dash<sup>75</sup> offered three main routes. The western alternative is represented by Russia and its competitors like Ukraine and Turkey, the southern project is represented by Iran, Pakistan, and the eastern by China. Again, Asopa identifies nine major plans for pipeline development in Central Asia. These scholars explain the problems and conflicts involved in the making of oil and gas pipeline routes.



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- <sup>69</sup> Julia Nanay (2000), "The Industries Race for Caspian Oil Reserves" in *Caspian Energy Resources: Implication for the Arab Gulf* by The Emirates Centre for Strategic Studies and Research: UAE, pp.111-26.
- <sup>70</sup> R.G. Gidadhubli (2000), "Economics and Politics of Caspian Energy Resources" in *Geopolitics and Energy Resources in Central Asia and Caspian Sea Region* by Shamas-ud-din (ed.), Lancers Book: New Delhi, pp.107-18.
- <sup>71</sup> Nalin Kumar Mahapatra (1999), "Caspian Cauldron: Role of the States and Non-State Actors", *Contemporary Central Asia*, 3(3): pp.40-55.
- <sup>72</sup> Abraham S.Becker (2000), "Russia and Caspian Oil: Moscow Loses Control", *Post-Soviet Affairs*, 16(2): pp.91-132.
- <sup>73</sup> R.K. Zhulaman and S.K. Kushkumbaev (1998), "Problems of the Caspian Area: Geopolitical Parallels and Meridians", *Contemporary Central Asia*, 2(1), pp.1-20.
- <sup>74</sup> Akira, Miyamoto (1997), "Natural Gas in Central Asia", *The Royal Institute of International Affairs: London*, pp.63-80.
- <sup>75</sup> P.L. Dash (2000), 'Oil Transport and Trade: Dilemmas and Options facing Kazakhstan and Turkmenistan" in *Geopolitics and Energy resources in Central Asia and Caspian Sea Region* by Shamas-ud-din (ed.). Lancers Book: New Delhi, pp.91-106.

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Varadarajan<sup>76</sup> quotes Kamal Burkhanov, the head of the Institute of Russia and China and an adviser to the president Nursultan Nazarbaev stating that “There are four routes through which we can export our oil and gas”. These are the pipeline through Iran to the Persian Gulf either via Turkmenistan or the Caspian Sea, the Atasu pipeline to China, the Caspian Pipeline Consortium (CPC) through Russia and its Black sea port of Novorossisk and finally the Baku-Tblisi-Ceyhan (BTC) route. The scholar and others like Kleveman<sup>77</sup> feel that the Iranian one is most beneficial for Kazakhstan.

Grare<sup>78</sup> mentions Iran as the most beneficial in terms of production and an indirect transit country for India. It also forms a potential bridge with Central Asia. Dekmejian et al<sup>79</sup> explains the status of the Caspian and Central Asia to have become heavily dependent on the outside world, particularly the United States, Russia, and Europe in the political, military, and economic spheres. Hooshang<sup>80</sup> on the other hand, suggests five pipeline routes. These include the Northern routes preferred by Russia, Southern routes favored by Iran and oil companies, Western routes favored by U.S., Turkey, Azerbaijan, Georgia, Eastern routes preferred by China and Japan, and Southeastern routes preferred by Pakistan, Afghanistan. Some of these are extensions of existing pipelines while others are altogether new and have to pass through tests and contests within the geographical set up. Rough terrain, ethnic violence, bureaucratic infighting, and individual ambitions need to be accounted for long-term policy application. Gregory<sup>81</sup>, Horton et al<sup>82</sup> and Gidadhubli<sup>83</sup>, points out that no major projects can go forward without a reasonable legal regime and that includes resolution of dispute over whether the Caspian is a sea or a lake.

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<sup>76</sup> Siddharth Varadarajan (2004), “Those with Pipelines Call the Tunes”, *The Hindu*, New Delhi, 2 November 2004.

<sup>77</sup> Kleveman (2003): op cit

<sup>78</sup> Frederic Grare (2000), “Meeting India’s Energy Needs: What Role for Central Asia” in *India’s Energy* by Pierre Audinet et al, Manohar Publication: New Delhi, pp.239-65.

<sup>79</sup> Hrair Dekmejian and Hovanan H. Simonian (2001), “Pipeline Dilemmas” in *Troubled Waters: the Geopolitics of the Caspian region*, I.B. Tauris: London, p.35.

<sup>80</sup> Amirahmadi Hooshang (2000), “Pipeline Politics in the Caspian Region” in *The Caspian Region at a Crossroads* by Hooshang Amirahmadi, Macmillan Press Ltd.: USA, p.164.

<sup>81</sup> Paul R. Gregory (2000), “Developing Caspian Energy Reserves: The Legal Environment” in *Caspian Energy Resources: Implication for the Arab Gulf* by The Emirates Centre for Strategic Studies and Research: UAE, pp. 25-52.

<sup>82</sup> Scott Horton and Natik Mamedov (2000), “Legal Status of the Caspian Sea” in *The Caspian Region at a Crossroads* by Hooshang Amirahmadi, Macmillan Press Ltd.: USA, p.265.

<sup>83</sup> R.G. Gidadhubli (2000): op cit

Similar to this view Joshi<sup>84</sup> points out that one of the biggest hurdles facing the littoral countries is the legal status of the Caspian Sea, which is still undetermined.

The literature survey reveals that most of the studies have focused on the analysis of the exploration from the point of super power interests operating within the region. Oil and natural gas is the most important economic resource of the region. Research studies with a focus upon the exploration of oil and natural gas reserve needs to be developed from the perspectives of achieving socio-economic development of the region. While focusing on the potential pipelines for exporting oil to the energy hungry market, the present research will consider exploration of oil and natural gas reserves within the context of the region's socio economic development.

### **I.11 Objectives**

The study will have the following objectives:

1. Identification of major oil and gas reserves in Central Asia.
2. Understanding the crucial importance of oil and natural gas in the socio-economic development of the region.
3. Highlighting the major existing operational routes / pipelines in Central Asia.
4. Analyzing the Great Power interests for exploitation of oil and natural gas reserves in Central Asia.

### **I.12 Data Base and Methodology**

The present research will primarily focus on secondary sources of information and will heavily rely upon descriptive analysis. An extensive literature survey will be conducted for the proposed work. The archives and internet resource will be carefully scrutinized in addition to other published and non-published material for an in-depth analysis. An attempt will also be made to collect information and other related data in relation to indicators for assessing the socio economic development of the region. Simple

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<sup>84</sup> Nirmala Joshi (2000), "Russian Interests in the Caspian Sea Region" in *Geopolitics and Energy Resources in Central Asia and Caspian Sea Region* by Shamas-ud-din (ed.), Lancers Book: New Delhi, pp.29-40.

statistical tools will be utilized in order to explore and reach logical conclusions. Cartographic techniques and flow maps will be adopted for depicting the routes and pipelines for oil reserves for a better understanding.

### **I.13 Organization of the Study**

The study consists of six chapters. The first chapter is the 'Introduction'. The chapter elaborates the history of Central Asia's oil and natural gas reserve exploitation. It highlights the geo - strategic importance of this region, while exploring the great power interest in the region's oil reserves. A detailed review of literature along with possible viable options of pipelines has been discussed in this section.

The second chapter deals with the 'Existing Pipeline Routes'. It discusses the energy reserves in Central Asia while investigating the existing pipelines. An attempt has been made here to examine the capacity, conditions and limitations of existing pipelines. This chapter will also deal with the current supply and future potential demand.

The third chapter is entitled 'Proposed Oil and Gas Pipeline Routes'. It is based on the potential demand and supply as discussed in the second chapter. This chapter attempts to suggest new pipelines especially from the viewpoint of socio-economic development of the region. It further highlights the proposed pipeline routes with their merits and demerits.

Chapter four is entitled the 'Great Power Interest in Central Asia'. An attempt has been made in this chapter to study the interests of great powers in Central Asian oil and gas reserves especially that of US, Russia and China. The international politics involved and the great game strategy adopted by the various players will be analyzed.

The fifth chapter deals with the 'Role of Regional Powers'. This chapter deals with the emergence of regional players like Iran, Turkey, Pakistan, Azerbaijan, Georgia and India's interests in Central Asia. It will also highlight the interest of the regional powers keeping in view their allegiance with the great powers.

Finally, the concluding chapter is the sixth chapter which outlines a brief summary of each of the chapters and states the final conclusions.

## **Chapter-II**

# **Existing Pipeline Routes**



The present chapter deals with the energy reserves, its current supply and the future potential demand in Central Asia. An attempt has been made to study the various existing pipeline routes, their capacity, conditions and limitations. The Caspian Sea is one of the world's largest groups of oil and gas fields, but its potential remained unexploited under the Soviet Union due to the lack of investment and modern technology. With the independence, in 1991 the western oil companies were able to begin investing in the local oil industry. The geographical situation of the Caspian sea is totally landlocked making transportation of oil significantly difficult. In addition, the local geopolitical situation for the pipelines pose a major problem. Commercial oil output began in Baku in the middle of Nineteenth century, making Trans-Caucasia one of the world's first oil provinces. In Central Asia, on the other side of the Caspian Sea, commercial production began in early Twentieth century. By 1940, Azerbaijan accounted for about 70 % of Soviet oil production.<sup>1</sup>

The range of expected oil reserves has been quoted differently from different sources ranging from 200 billion barrels to 30 Billion barrels. Sources, including the US Deputy Secretary of State Strobe Talbott have quoted a figure of like 200 billion barrels, while, others use a much lower conservative figure of 30 – 40 billion barrels. Yet there are others who quote a figure of 60 billion barrels of proven and probable oil equivalent (which includes gas). On 30 April 1997, the Wall Street Journal estimated possible reserves in the Caspian Sea region at 178 billion barrels (offshore production costs and impurities would make development costs high).

According to Geoffery Kemp, the oil and gas reserves of the Caspian Basin could be as high as 200 billion barrels of oil and 279 trillion cubic feet of natural gas. Many industry analysts have quoted a total of 90 billion barrels of oil and natural gas.<sup>2</sup> In June 2000, the US Department of Energy, estimated that even if one did not count Russia's and Iran's regional assets, the region had 16-32 billion barrels of proven oil resources, 206 billion barrels of possible oil reserves, 236-337 trillion cubic feet of proven gas reserves and 319 trillion cubic feet of possible gas reserves.<sup>3</sup>

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<sup>1</sup> Lea (1999), "Caspian Oil and Gas", OECD: Paris, p. 31.

<sup>2</sup> Sheel K. Asopa (2002), "Situation Trans-Caucasus and Central Asia: Geopolitics or Geo-economics", *Contemporary Central Asia*, 6(1-2): p. 2.

<sup>3</sup> *Ibid.*, p.1.

## II.1 World Scenario of Oil and Gas

Table No. 2.1

### Estimated Oil Reserves of Caspian Littoral States in Order of its Share in the Global Reserves

Country or Region	Oil Reserves (million tonnes)	(%) Share in total Gas reserves	(%) Share in Global Reserves
Iran	12,721	62.02	9.36
Russia	6,887.79	33.58	5.07
Kazakhstan	672.95	3.28	0.50
Azerbaijan	150.42	7.3	.11
Turkmenistan	79.17	0.39	0.06
All Caspian States	20,511.33	100	15.1

Source: Refer footnote<sup>4</sup>

Table 2.1 shows the estimated oil reserves of Caspian states in order of its share in the global reserves. Among the five countries, Iran has the largest oil reserve that is 12721 million tonnes, thus having a share of 62.02 % in total gas reserves of the world and 9.36 % sharing in global reserves. Russia has the second highest 6887.79 million tonnes of oil, with 33.58 % share in total gas reserves. The other three countries Kazakhstan, Azerbaijan, Turkmenistan though have quite less share of oil reserves as compared above to two consisting of 692.95 million tonnes, 150.42 million tonnes, 79.17 million tonnes respectively but looking at their strategic location and their still to be discovered status makes them quite viable in the coming future.

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<sup>4</sup> Andre Shoumikhin (1999), "Russia: Developing Cooperation on the Caspian", Praeger: USA, p. 133.

**Table No. 2.2****World Natural Gas Reserves in billion cubic metres**

COUNTRY	2000	2002	Share in the world (%) 2002
OPEC	68277	87402	50.6
GULF	51985	70039	40.6
RUSSIA	48138	47572	27.0
USA	4740	5195	3.0
TURKMENISTAN	2860	2011	1.2
KAZAKHSTAN	1841	1841	1.1
UZBEKISTAN	1875	1875	1.1

Source: OPEC Annual Statistical Bulletin, 2001, Vienna

Natural gas is considered the 'Prince' of hydrocarbon fuels. At some point in the 21<sup>st</sup> century it will, in calorific terms, overtake crude oil production. Table 2.2 shows, the distribution of gas reserves in the world. Other than the OPEC countries, Russia has the largest reserves of fossil fuel.

**Table No. 2.3****World Marketed Natural Gas Production in million cubic metre tonnes per year**

COUNTRY	2000	2001	Share in the world (%) 2001
RUSSIA	584200	575400	22.5

USA	537620	550310	21.5
OPEC	394890	419255	16.4
GULF	21106	237331	9.3
UZBEKISTAN	56400	57000	2.2
TURKMENISTAN	47000	51300	2.0
KAZAKHSTAN	11500	11600	0.4

Source: OPEC Annual Statistical Bulletin, 2001, Vienna

Table 2.3 explains the world marketed natural gas production in 2001 was 22.5 %. US being very close to it have 21.5 % of share. OPEC and Gulf have 16.4 % and 9.3 % share respectively. Uzbekistan, Turkmenistan and Kazakhstan share 2.2 %, 2.0 % and 0.4 % respectively. However, the three Central Asian countries have comparatively less share but this is because of technological backwardness, insufficient supply structure and still to be discovered gas fields. Thus given the above entities they can easily compete with the world leaders. Global oil demand is projected to increase by around 2.2 % annually to reach about 97.1 million barrels per day by 2010. Much of the increase in demand is expected to come from Asia. Total non-OPEC production is projected to rise by less than demand, from 40.9 million barrels per day in 1995 to 45.5 in 2010. Consequently, the call on OPEC crude is expected to increase to 48.6 million barrels per day by 2010.<sup>5</sup>

The largest per capita increase in demand by 2010 is expected to come from the Asia Pacific region.<sup>6</sup> East Asia is entering the new millennium in a rather precarious position with respect to its growing dependence on energy imports.<sup>7</sup> Global oil demand is projected to increase by around 2.2% annually (about 1.7 million barrels per day), reaching about 97.1 million barrels per day by 2010.

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<sup>5</sup> Lea, n.1, p.85.

<sup>6</sup> Ibid., p.86

<sup>7</sup> Ibid., p.87.

Although oil will remain the dominant fuel in the Organization for Economic Cooperation and Development, its share of total consumption will decline for the OECD as a whole from 42 % in 1995 to 41 % by 2010. This change reflects switching to natural gas and other fuels. The fastest growth in oil consumption is projected for the developing countries, with Asia and Latin America accounting for a large proportion. This forecast shows a gradual shift in the focus of world energy demand away from the OECD to the developing world.<sup>8</sup>

The world supply of outlook continues to be stimulated by the liberalisation and integration of the world economy. Total non-OPEC production is projected to rise by less than demand from 40.9 million barrels per day in 1995 to 46.6 in 2010. Since global oil demand is projected to increase by around 2.2% annually on average, to reach about 97.1 million barrels per day by 2010, the call on OPEC, crude is expected to increase to 48.6 million barrels per day by 2010.<sup>9</sup>

By 2010, the combined oil exports of Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan are projected to reach 1.5 - 2.3 million barrel per day<sup>10</sup>. Although the Former Soviet Union and Atlantic basin producers will play large roles in meeting the long-term future demand, non-OPEC supply is expected to slow after 2000.<sup>11</sup>

## **II.2 Caspian Region Scenario**

Central Asian and Trans Caucasian crude are of higher quality than Siberian crude and less expensive to produce. Production costs are steadily rising in western Siberia due to a number of factors, including depletion of existing wells, rising water content in the oil, a difficult operating environment and an absence of large new discoveries. Transportation costs are also likely to be more favourable in the case of Central Asian and Trans-Caucasian oil.

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<sup>8</sup> Ibid., pp.87-88.

<sup>9</sup> Ibid., p.89

<sup>10</sup> Ibid, p.88.

<sup>11</sup> Ibid., pp.86-89.

**Table 2.4****Caspian Region Production**

	1996	2000	2010
Oil (Million Tonnes)	43	69-79	138-194
Gas (Billion Cubic Metres)	96	102-112	164-201

Source: Refer footnote<sup>12</sup>

The International Energy Agency “high” case scenario projects annual oil production from the Caspian region. (Refer table 2.4) to be 194 million tonnes by 2010. In the “low” case scenario, which assumes some projects delays, oil production by 2010, may reach 138 million tonnes. Current International Energy Agency predictions for gas production are supposed to reach 201 billion cubic metres by 2010 in the high case. In the low case, production would reach 164 billion cubic metres by 2010.

**Table 2.5****Caspian Region Net Export**

	1996	2000	2010
Oil (Million Tonnes )	15	29-33	75-117
Gas (Billion Cubic Metres)	25	26-31	72-84

Source: Refer footnote<sup>13</sup>

The above table prepared by International Energy Agency predicts energy net export of oil and gas by 2010. Thus, Central Asia could play an important role in the world energy market during the coming decade. The Caspian region, holding large oil and gas reserves, along with Kyrgyzstan, Tajikistan, and Uzbekistan, has often been referred to as the next Persian Gulf.<sup>14</sup>

<sup>12</sup> Lea, n.1, p.32.

<sup>13</sup> Ibid.

<sup>14</sup> Francois Jean Seznec (2000), “Oil and Gas: Fuel for Caspian's Economic Development”, Macmillan Press: London, p. 106.

## II.3 The Central Asian Region

On an energy, equivalent basis Central Asia has predominantly gas producing region. The majority of oil and gas output in Central Asia comes from Kazakhstan, Turkmenistan and Uzbekistan; where Tajikistan and Kyrgyzstan produces relatively small quantity of oil and natural gas. Kazakhstan has the largest discovered oil and gas fields in recent years. 'Kashagan' in Kazakhstan is the second largest oil field on the earth and forecasts Kazakhstan as one of the world's largest oil exporter by 2020 to the extent of being at par to Saudi Arabia.<sup>15</sup> Kazakhstan's 'Tengiz' oil field in particular, is the sixth largest oil bubble in the world containing up to 25 billion barrels.<sup>16</sup>

**Table No. 2.6**  
**Kazakhstan- Major Oil Reserves**

Name, location and crude quality	Reserves
Tengiz (North-East Caspian) light and sweet crude	6-9 bn barrels oil; also gas
Karachaganak (North near Russian border) -poor quality associated gas	2.4 bn barrels oil; 453.44 BCM gas; 764mt condensates
Kashagan(North Caspian)	8 bn barrels of oil; 13 with gas injection 694.33 BCM-1.983 TCM gas; 1.5-2 bbl
Buzachi (North of Tengiz) -sour and heavy	TCM gas; 1.5-2 bbl
Total oil	9-17.6 bbl
Total gas	1.134 TCM

Source: Refer Footnote<sup>17</sup>

<sup>15</sup> Lutz Klevevan (2003), "The New Great Game: Blood and Oil in Central Asia", Atlantic Books: London, p. 75.

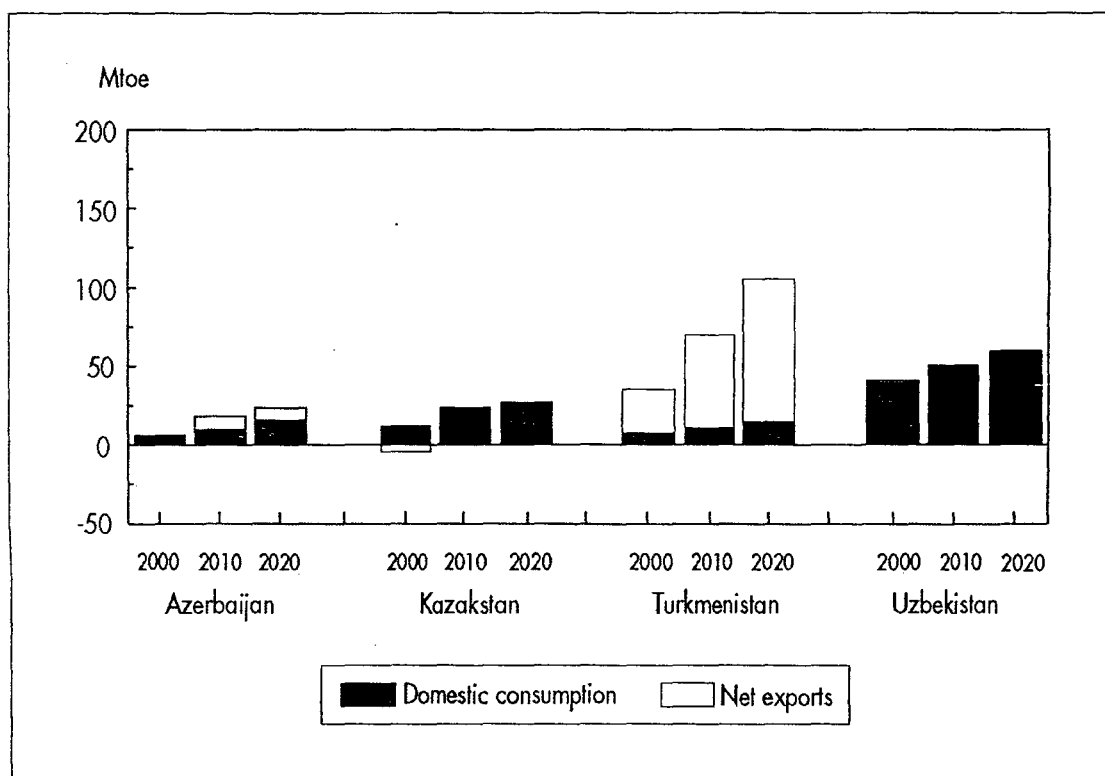
<sup>16</sup> Ibid., p. 80.

<sup>17</sup> K. Santhanam and Ramakant Dwivedi (eds.) (2004), "India and Central Asia: Advancing the Common Interests", Anamaya Publishers: New Delhi, p.117.

Table 2.2 shows Kashagan in North Caspian has the largest oil resources around 8 billion followed by Tengiz (North East Caspian) which has around 6-9 billion barrels of oil reserve. Kashagan and Karachaganak also have very large gas reserve. Apart from the three major fields namely, Tengiz oil field, Karachaganak and the Giant Kashagan – the country has several smaller ones as well. Kazakhstan is the second largest producer in former Soviet Union. But after 1991, oil production has risen to the tune of 22.8 million tonnes in 1996 and 25.7 million tonnes in 1997. Taking into account major projects such as Tengiz, output is expected to reach 75-100 million tonnes by 2010. It estimates total proved, probable and possible reserves at 12 billion tonnes for oil and 22.67 trillion cubic metres for gas. That would make Turkmenistan the world's largest potential gas producer.<sup>18</sup> By 2003, Uzbekistan has mapped 190 known oil and gas field of which 88 are in production, 58 on the verge of production, and 35 are being explored.<sup>19</sup>

**Figure II.1**

**Gas Production, Domestic Consumption and Net Export (High Case)**



Source: Refer footnote<sup>20</sup>

<sup>18</sup> Ibid., p.121.

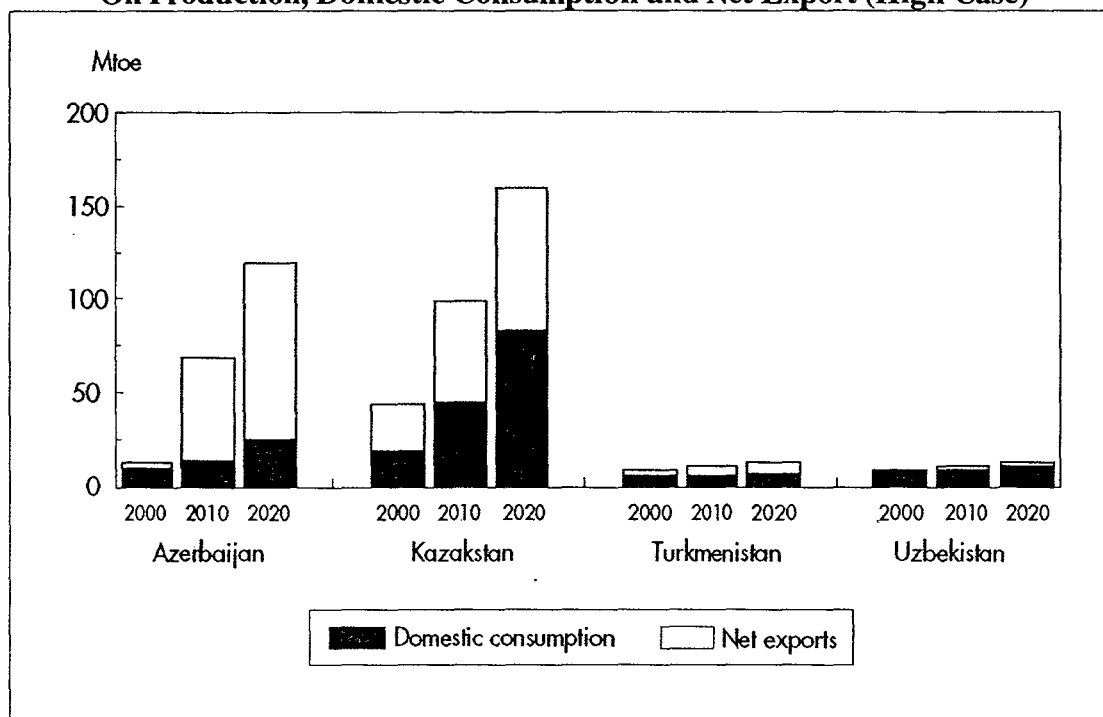
<sup>19</sup> Ibid., p.123.

<sup>20</sup> Lea, n.1, p.33.



Table 2.1 shows high net export of gas for Turkmenistan in the years to come because it has the highest gas reserves in the world and comparatively less consumption level at domestic level. However Uzbekistan, Kazakhstan and to some extent Azerbaijan will continue to have high domestic consumption and almost nil net export, due to comparatively less gas fields located here. The country's oil and gas resources are located in Ustyurt, Bukhara-Khiva, Gissar, Surkhan, Darya and Ferghana Regions, mostly in the south and southeastern corners of the country.<sup>21</sup>

**Figure II.2**  
**Oil Production, Domestic Consumption and Net Export (High Case)**



Source: Refer footnote<sup>22</sup>

Figure 2.2 shows high net exports of oil for four countries. Turkmenistan and Uzbekistan shows very high domestic consumption, because they do not possess huge amount of oil. Where as the figure projects a very high net export for Azerbaijan by the year 2020 and almost equal domestic consumption and net export for Kazakhstan by 2020. However it is quite apparent from the table that the future net exports of all the countries is going to increase and the most obvious reasons for this positive outcome is new investments in technology, infrastructure and future supply exit points.

<sup>21</sup> Ibid.

<sup>22</sup> Lea, n.1, p.33.

China's growing energy demands, is likely to grow from 4.7 million barrels a day in 2000 to 10.5 million barrels a day by 2020.<sup>23</sup> China became interested in this area after the collapse of Soviet Union because of its growing energy needs. Control over ever more precious energy reserves is also of critical importance for Europe, which is heavily dependent on external supplies. By the year 2030, only 70 percent of Europe's oil requirements will be covered by domestic production. Norway's oil is expected to be exhausted in about 14 years; Great Britain's in just 10 years.<sup>24</sup> Western Europe is therefore a tough market. Between 1995 and 2010, estimation is that demand for oil will increase from 14.1 million barrels per day (705 million tonnes per year) to 15.0 million barrels per day (750 million tonnes per year) an average growth rate of only 0.5 percent annually<sup>25</sup>.

Central and Eastern Europe's oil demand is expected to increase by only half a million barrels per day, from 1.3 million barrels per day (67 million tonnes per year) to 1.8 million barrels per day (91.5 million tonnes per year) between 1995 and 2010. Asia Pacific in other three markets has a rapidly increasing demand for oil and an expected significant increase in population. The region's demand for oil would almost double by 2010.<sup>26</sup> India's energy consumption has started to rise rapidly in recent years, making the country one of the largest consumers in Asia today. By the end of the decade, India, will be importing 90% of its crude oil and natural gas requirements.<sup>27</sup>

Oil transportation with the former Soviet Union (Central Asia inclusive) that is "intra-regional" trade, takes place predominantly through the existing pipeline system. Approximately 85 % of such trade is via pipeline, 10 % by rail and the remaining 5% by via barge.<sup>28</sup> Coming to existing Russian pipelines, they are oriented to the needs of the former Soviet Union and are antiquated. They are not adequate for the newly independent states. Russia uses its pipelines to serve its own interests, shutting them down or restricting the flow when it is convenient, requiring special taxes and tariffs and using access as leverage to gain a stake in whatever enterprise requires the use of

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<sup>23</sup> [http://www.atimes.com/atimes/Central\\_Asia.html](http://www.atimes.com/atimes/Central_Asia.html)

<sup>24</sup> <http://www.wsws.org/articles/1999/nov1999/oil-n30.shtml>

<sup>25</sup> <http://www.wcc-coe.org/wcc/behindthenews/analysis17.html>

<sup>26</sup> Ibid.

<sup>27</sup> Ruchita Beri (2005), "Africa's Energy potential: Prospects for India", *Strategic Analysis*, 29(3): 371.

<sup>28</sup> Asopa, n.2, p.7.

its network.<sup>29</sup> They are not sufficient to carry the entire load of Caspian as well as Russian oil to international markets. Transneft acknowledges that more than one-third of the system is nearing or already beyond its service life (33 years on an average) and leak prone.<sup>30</sup> Russia's oil and gas pipeline operators, facing capacity constraints due to lack of maintenance and other technical problems, have capped exports from the region. In the case of gas, there is also a certain reluctance to share markets.

Presently, there are two operable oil export pipeline systems out of Central Asia. One line runs from Atyrau on the north coast of the Caspian Sea to Samara in Russia. Oil from the Tengiz field is fed into this pipeline. Another runs from the field of northeast of the Caspian Sea to Orsk in Russia. A third pipeline running from Atyrau along the north coast of the Caspian Sea to Astrakhan, Komsomolskiy to Grozny in Chechnya, is apparently not operable but, will be integrated into the Caspian Pipeline Consortium (CPC) project.<sup>31</sup> Two major lines, both of which were to prove complex and contentious, were the Caspian Pipeline Consortium's 1,510 km line connecting Kazakhstan's giant Tengiz oilfield with the Russian Black Sea port of Novorossiysk and the 1,760 km line from Baku through Georgia to the Turkish Mediterranean port of Ceyhan. [Refer Map No. 2.2] The CPC line opened for business in 2001 while the first contracts for actual physical construction of the Baku-Tbilisi-Ceyhan line were awarded in August 2002, with completion scheduled for early 2005.<sup>32</sup> Kazakhstan's crude oil exports to areas beyond the former Soviet Union are routed through the Russian port of Novorossiysk on the Black Sea. The combined throughout capacity of the pipelines serving this terminal is reported at 640,000 billions per day, and the capacity of the terminal itself is of the same order of magnitude. While the pipelines carrying Russian and Kazakh oil to Tikhoretsk in the Krasnodar territory have spare capacity, the pipelines running from Tikhoretsk to Novorossiysk are frequently operated at above full capacity and constitute a bottleneck for Russian as well as Caspian oil exports. At the Novorossiysk terminal, itself there have been congestion problems.

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<sup>29</sup> Ibid.

<sup>30</sup> Abraham S. Becker (2000), 'Russia and Caspian Oil: Moscow Loses Central', *Post-Soviet Affairs*, 16(2): 105.

<sup>31</sup> Ottar Skagen (2000), "Survey of Caspian's Oil and Gas Resources" in Hooshang Amirahmadi (ed.), "The Caspian Region at a Crossroads", Macmillan Press: USA, p. 64.

<sup>32</sup> Shirin Akiner (ed.) (2005), "The Caspian Politics, Energy and Security", Routledge Curzon: London & New York, p. 77.

The Central Asian republics import Siberian crude oil via a pipeline that crosses the Russian-Kazakh border south of Omsk. It runs to the Pavlodar refinery in northeastern Kazakhstan, Shymkent refinery in southern Kazakhstan, enters Uzbekistan and finally ends at the Chardzhou refinery in Turkmenistan. Its capacity is reported at 540,000 billions per day to Pavlodar and 340,000 billions per day for the rest of the way. For intra-central Asian oil trade there is a small pipeline with a capacity of some 40,000 billions per day linking Kyrgyzstan and Tajikistan with Uzbekistan.

In 1996, the capacity of crude oil export pipelines from Central Asia to Russia was about 16 million tonnes, with virtually no export capacity from Trans-Caucasia. This capacity has been nearly fully utilized in recent years. For onward export capacity, shared by Russian and Central Asian Oil, Transneft has allocated less than 10 million tonnes per year to Central Asia.

The situation is more difficult for gas. Since 1994, Gazprom has not allowed any exports through its territory to markets outside the former Soviet Union. Gazprom has further more indicated that it does not want Central Asian gas to compete with Russian gas in the Lucrative European market. Gas exporters from Turkmenistan, Kazakhstan and Uzbekistan have thus been limited to less solvent markets of the Former Soviet Union.<sup>33</sup>

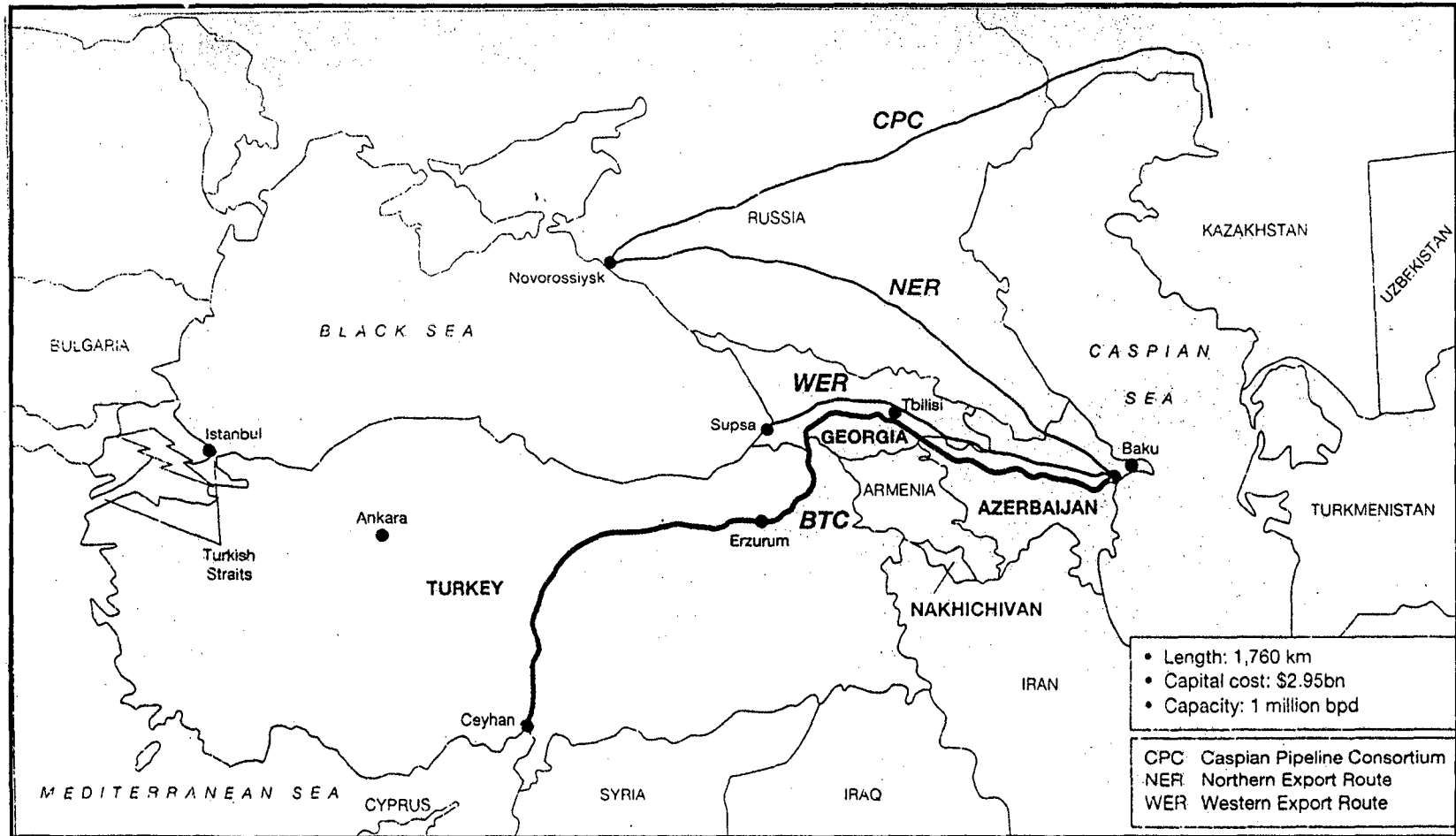
## **II.4 Existing Pipeline**

The existing oil pipeline network, designed by the former Soviet Union is composed of four major sections. It consists of one import line from Russia and three exports line. The import runs from the West Siberian oil fields and passes through Kazakhstan (Pavlodar and Shymkent) and Uzbekistan terminating in Turkmenistan (Seili, formerly Shymkent to Uzbekistan's eastern refineries at Farghana and Alty-Aryk). In addition, a pipeline from Kumkol region in eastern Kazakhstan feeds locally produced oil into the Pavlodar-Shymkent Seili pipeline. A glance of the Soviet pipeline system as it exists has been depicted in Map No.2.1.

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<sup>33</sup> Lea, n.1, p.36.

Map No. 2.1  
Soviet Pipeline System



The three major oil export lines in Central Asia were designed to ship oil from the major oil producing regions of Kazakhstan. Most of the oil from Tengiz and the Buzachi Peninsula is shipped north to Samara and currently moves to Russian refineries. Oil from the Zhanazhol region is shipped north to Russia (through Orsk). Another pipeline from this region runs around the Caspian Sea to Grozny.

**Table No. 2.7**  
**Oil Export Routes and Options in the Caspian Sea Region**

<b>Name/Location</b>	<b>Route</b>	<b>Crude Capacity</b>	<b>Length</b>	<b>Estimated Cost/Investment</b>	<b>Status</b>
<b>Atyrau-Samara Pipeline</b>	Atyrau (Kazakhstan) to Samara (Russia), linking to Russian pipeline system	Recently increased to 310,000 bbl/d	432 miles	Increase in capacity cost approximately \$37.5 million	Existing pipeline recently upgraded by adding pumping and heating stations to increase capacity.
<b><u>Baku-Ceyhan</u></b> <b>("Main Export Pipeline")</b>	Baku (Azerbaijan) via Tbilisi (Georgia) to Ceyhan (Turkey), terminating at the Ceyhan Mediterranean Sea port	Planned: 1 million bbl/d	Approximately 1,038 miles	\$2.9 billion	One-year detailed engineering study completed in June 2002. Construction on Turkish section of pipeline began in June 2002. Completion of entire pipeline targeted for 2004, exports by Feb. 2005.
<b>Baku-Supsa Pipeline (AIOC "Early Oil" Western Route)</b>	Baku to Supsa (Georgia), terminating at Supsa Black Sea port	Recently upgraded from 115,000 to 145,000 bbl/d; proposed upgrades to between 300,000 bbl/d to 600,000 bbl/d	515 miles	\$600 million	Exports began in April 1999; approximately 115,000 bbl/d exported via this route in 2001.
<b>Baku-Novorossiisk Pipeline (Northern Route)</b>	Baku via Chechnya (Russia) to Novorossiisk	100,000 bbl/d capacity; possible	868 miles; 90 miles are in Chechnya	\$600 million to upgrade to 300,000 bbl/d	Exports began late 1997; exports in 2001 averaged

	(Russia), terminating at Novorossiisk Black Sea oil terminal	upgrade to 300,000 bbl/d			50,000 bbl/d.
<b>Baku-Novorossiisk Pipeline (Chechnya bypass, with link to Makhachkala)</b>	Baku via Dagestan to Tikhoretsk (Russia) and terminating Novorossiisk Black Sea oil terminal	Currently: 120,000 bbl/d (rail and pipeline: 160,000 bbl/d); Planned: 360,000 bbl/d (by 2005)	204 miles	\$140 million	Completed April 2000. Eleven-mile spur connects bypass with Russia's Caspian Sea port of Makhachkala.
<b><u>Caspian Pipeline Consortium (CPC) Pipeline</u></b>	Tengiz oil field (Kazakhstan) to Novorossiisk Black Sea oil terminal	Currently: 565,000-bbl/d; Planned: 1.34-million bbl/d (by 2015)	990 miles	\$2.5 billion for Phase 1 capacity; \$4.2 billion total when completed	First tanker loaded in Novorossiisk (10/01); exports rising to 400,000 bbl/d by end-2002

Source: Refer footnote<sup>34</sup>

Table 2.7 shows existing oil export routes. As the Table shows most of the existing oil export routes pass from Russian territory. And therefore there is a need for multiple pipelines that will reduce Russian influence.

The presence of gas pipeline network reflects the importance of natural gas transportation in the region. Over 10,000 km of gas trunk pipeline have been laid in order to transport gas from Uzbekistan, Turkmenistan and Kazakhstan to Russia and Europe. Besides, the five capital cities of all five Central Asian republics are connected by gas pipelines. Currently, the Central Asian gas output primarily is concentrated in Turkmenistan, a net gas exporter, which holds a dominant position among the Southern former republics. Turkmenistan exported just 8.3 billion cubic meters (BCM) of gas in 1993 to the West as Russia began to impede the country's gas exports in the process of wrangling over the proposed 1994 quota and tariff schedules.

<sup>34</sup> <http://www.eia.doe.gov/emeu/cabs/caspgrph.html>

As a result of this development, Turkmenistan is attempting to build new export pipelines for its gas.

**Table No. 2.8  
Natural Gas Export Routes and Options in the Caspian Sea Region**

<b>Name/Location</b>	<b>Route</b>	<b>Capacity</b>	<b>Length</b>	<b>Estimated Cost/Investment</b>	<b>Status</b>
<b>Central Asia-Center Pipeline</b>	Turkmenistan and Uzbekistan via Kazakhstan to Saratov (Russia), linking to Russian natural gas pipeline system	3.5 Tcf/year	Existing route	N/A	Operational. Turkmenistan is using this pipeline to export a total of 8.83 Tcf to Ukraine (via Russia) from 2002 to 2006, as well as smaller amounts to Russia.
<b><u>Trans-Caspian Gas Pipeline (TCGP)</u></b>	Turkmenbashy (Turkmenistan) via Baku and Tbilisi to Erzurum, linking with Turkish natural gas pipeline system	565 Bcf in first stage, eventually rising to 1.1 Tcf/year	1,020 miles	\$2 billion to \$3 billion	Project stalled; negotiations between Turkmenistan and Azerbaijan over pipeline volumes restarted in October 2001.
<b>Korpezhe-Kurt-Kui</b>	Korpezhe (Turkmenistan) to Kurt-Kui (Iran)	283-350 Bcf/year; expansion proposed to 459 Bcf/year by 2005	124 miles	\$190 million; 2005 expansion: \$300 million to \$400 million	Operational since December 1997.

Source: Refer footnote<sup>35</sup>

Currently the flow of oil and gas in the Central Asian region follows the existing pipeline routes and reflects supply and demand patterns for oil and gas. In terms of volume, Russia dominates the flow of oil in both directions. Gas flows exhibit a similar pattern overall. Gas flows out from Uzbekistan and Turkmenistan reflecting the dominant directional orientation of the pipelines, to satisfy demand for gas in both

<sup>35</sup> <http://www.eia.doe.gov/emeu/cabs/caspgrph.html>



Russia and Europe. Unlike the case with oil, however, Russia exports little gas into the region.<sup>36</sup>

Kazakhstan's total oil export outside the former Soviet Union through Russia in 1993 were 45.3 million barrels, of which about two-thirds were via tankers (sea) and one-third was moved via pipelines. Kazakhstan also exports about 6.9 million barrels of crude to Azerbaijan from Aktau to Baku by way of the Caspian Sea. Crude oil exported by both Tajikistan and Kyrgyzstan is shipped by rail to Uzbekistan's refinery in Farghana.<sup>37</sup>

Turkmen oil exports are moving entirely by way of Caspian Sea, as its only major pipeline is an import line delivering Russian crude. Iran too receives about eleven million barrels of Azeri oil by way of barge transportation through the Caspian Sea. Both Turkmenistan and Azerbaijan are largely dependent on oil movements involving the Caspian Sea.<sup>38</sup>

Azerbaijan where Russians are forced to compete with an alternative pipeline, the cost of transporting oil is still expensive. It costs \$43 to transport a barrel of oil from Azerbaijan's Caspian port of Baku to Georgia's Black Sea port of Supra, whereas it costs \$2.15 to transport a barrel from Baku to the Russian Black Sea port of Nevorossiysk.<sup>39</sup> The Baku-Novorossiysk pipeline, owing to accidents, fires and leakages, periodically experiences a significant drop in production. In Russia Gazprom and Lukoil have often been at odds with the government over its policy towards the development and transportation of oil, and have even been on occasions overruled the Foreign Ministry.<sup>40</sup> The bottom line, however is that current arrangements are very unsatisfactory from the point of view of the newly independent states of Central Asia.

The Caspian basin is far away from world industrial centres and export has always been difficult. Even in 1895, scant decades after the Russian empire began encouraging oil extraction from the onshore fields of the Abs heron Peninsula on a commercial basis, international oil companies were planning a pipeline to get their

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<sup>36</sup> Asopa, n.2, p.7.

<sup>37</sup> Ibid., p.8.

<sup>38</sup> James P. Dorian et al (1994), "Network: Current and Future Flows", *Post Soviet Geography*, 35(7):418.

<sup>39</sup> Robinson West and Julia Nanay (2000), "Caspian Seas Infrastructure Projects", *Middle East Policy*, 6(3): 113.

<sup>40</sup> Beruce R. Kuniholm (2000), "Geopolitics of the Caspian Sea", *Middle East Journal*, p.553.

product out of Baku to more travelled regions. Export was not possible without pipelines.<sup>41</sup>

Central Asian and Trans-Caucasian crudes are of higher quality than Siberian crude and less expensive to produce. Production costs are steadily rising in western Siberia due to a number of factors, including depletion of existing wells, rising water content in the oil, a difficult operating environment and an absence of large new discoveries. Transportation costs are also likely to be more favourable in the case of Central Asian and Trans-Caucasian oil. The high production and transportation costs of Siberian crude will make it increasingly sensitive to small fluctuations in world oil prices. The cost of producing one tonne of oil from the Tengiz field in Kazakhstan and transporting it to Novorossiysk via the planned CPC route is expected to be US\$40/tonne cheaper than producing and transporting the same amount from western Siberia. Moreover, Azeri crude delivered to the Black Sea coast is expected to cost US\$50-\$55 less per tonne than crude from western Siberia, which costs almost US\$85/tonne to produce and transport to Novorossiysk, leaving little room for discounts. Transportation costs alone from western Siberia to Novorossiysk total some US\$30/tonne.

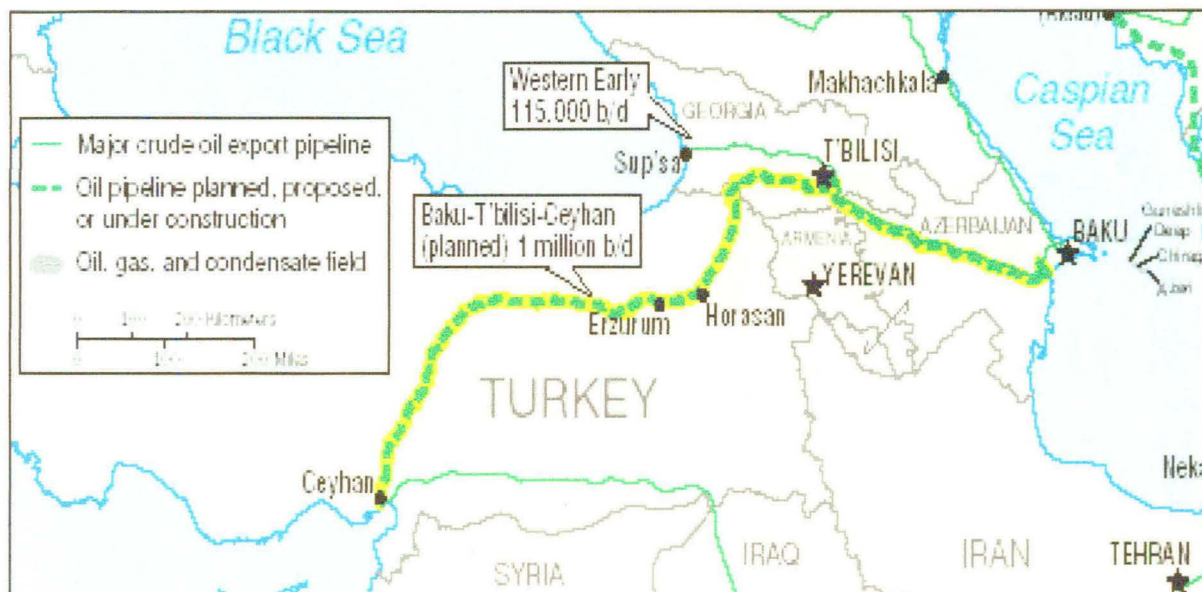
The Baku-Tbilisi-Ceyhan (BTC) pipeline transports crude oil 1,760 km (1,094 miles) from the Azeri-Chirag-Guneshli oil field in the Caspian Sea to the Mediterranean Sea. It passes through Baku, the capital of Azerbaijan; Tbilisi, the capital of Georgia; and Ceyhan, a port on the south-eastern Mediterranean coast of Turkey, hence its name. It is the second longest oil pipeline in the world (the longest being the Druzhba pipeline from Russia to central Europe). The construction of the BTC pipeline was one of the biggest engineering projects of the decade, and certainly one of the biggest to have occurred anywhere in western Asia since the fall of the Soviet Union. It was constructed from 150,000 individual joints of pipeline, each measuring 12 m (39 ft) in length. This corresponds to a total weight of approximately 655,000 short tons (594,000 metric tons). The construction of BTC pipeline began [Refer Map No. 2.2] in September 2002. The related former British Petroleum (BP) -led project was to construct a trans-Caspian gas pipeline from Kazakhstan to Turkey is scheduled to finish in 2006.

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<sup>41</sup> Michael P. Croissant and Bulent Aras (1999) (ed.), *Oil and Geopolitics in the Caspian Sea Region*, Praeger: USA, p.45.

## Map No. 2.2

### Route of the Baku-Tbilisi-Ceyhan (BTC) pipeline



Source: Refer footnote<sup>42</sup>

The route of the pipeline crosses Azerbaijan and skirts Armenia to pass through Georgia and Turkey. Of its total length of 1,760 km (1,094 miles), 440 km (273 miles) lies in Azerbaijan, 244.5 km (152 miles) in Georgia and 1,070 km (665 miles) in Turkey. It crosses several mountain ranges at altitudes of up to 2,830 m (9,300 ft). It also has to traverse 3,000 roads, railways and utility lines, both overground and underground, as well as 1,500 watercourses of up to 500 m wide (in the case of the Cayhan River in Turkey). The pipeline will be patrolled by national guards and buried for its entire length, making it less vulnerable to sabotage. The pipeline is 1,070 mm (42 inches) diameter for most of its length, narrowing to 865 mm (34 inches) diameter as it nears Ceyhan.

It has a projected lifespan of forty years, and when working at normal capacity, beginning in 2009, will transport 1 million barrels (160 000 m<sup>3</sup>) of oil per day. It has a capacity of 10 million barrels (1.6 million m<sup>3</sup>) of oil, which will flow through the pipeline at 2 m (6 ft) per second. The pipeline will supply approximately 1% of global demand. Funding for the BTC pipeline is largely through the World Bank's International Finance Corporation and the European Bank for Reconstruction and Development. The cost has been reported at \$3.6 billion, with the three principal

<sup>42</sup> [http://en.wikipedia.org/wiki/Baku-Tbilisi-Ceyhan\\_pipeline](http://en.wikipedia.org/wiki/Baku-Tbilisi-Ceyhan_pipeline)

stakeholders being BP (at 30.1%), AzBTC (a subsidiary of Azerbaijan's state-run oil company, at 20%) and the U.S. oil company Unocal (at 8.9%).

Map No. 2.3  
Tengiz-Novorossiisk Pipeline



SOURCE: Energy Information Administration AP

The Caspian Pipeline Consortium (CPC) inaugurated the first international pipeline dedicated to moving Caspian oil to world markets. The pipeline, which took some eight years to plan and build, will bring Kazakhstani oil to Russia's Black Sea port of Novorossiysk and from there to a potentially wide range of customer countries. This will bring respite to Kazakhstan. They will not be dictated by Russian monopoly. The giant Tengiz onshore oilfield is the primary source of oil for the CPC pipeline in its first phase. Development of the Tengiz field and construction of the pipeline are purely western efforts in terms of technology and financing.

CPC has the most complex structure of all the complex consortia formed to share the high costs and risks attached to Caspian oil development and export. The pipeline

runs for a total length of 1,580 kilometres and a cost of US \$ 2.6 billion. Its first-phase throughout capacity is 28 million tonnes annually, with a projected second-phase (in or after 2010) capacity of 67 million tonnes.

The pipeline's main customer is the Tengizchevroil consortium, which is developing the Tengiz oilfield, the richest of all fields now in operation in the Caspian basin.

The first phase of the 1,760-km-long United States-backed pipeline has now been completed. Once fully operational, it will take Caspian Sea oil directly from Baku to the Turkish port of Ceyhan on the Mediterranean coast. The pipeline will run through the Georgian capital, Tbilisi, bypassing the traditional Russian route.

To conclude, Central Asian Republics have very significant resources of energy that if utilized properly can be a great source of income to these countries. However, the existing pipeline routes are inefficient and moreover most of them pass through Russia, catering to the needs of Russia. Therefore, now there is a need to look for new exit routes that can give more sovereignty to these countries to make their policies.

## **Chapter-III**

# **Proposed Oil and Gas Pipeline Routes**

On the basis of the production and consumption processes, the present chapter will focus on the proposed oil and gas pipeline routes.

“Those who control the oil routes out of Central Asia will impact all future direction and quantities of flow and the distribution of revenues from new production”<sup>1</sup>

The development of oil and gas resources in the Caspian region is particularly important for the development of the Central Asian and Transcaucasian economies. In 1995 the energy sector’s share of GDP was an estimated 14.6 % in Azerbaijan, 10.1 % in Kazakhstan, 10.2 % in Turkmenistan, and 11.1 % in Uzbekistan [Refer Table no. 3.1]. Development of oil and gas sector and exports provide significant revenue for the regions’ government and stimulate investment in other economic sectors.

**Table No. 3.1**

**Energy Sector Share of GDP at Current Energy Prices (high case\*) (%)**

	1990	1995	Projected 2010	Projected 2020
Azerbaijan	5.1	14.6	29.5	26.8
Kazakhstan	7.2	10.1	18.4	17.5
Turkmenistan	9.6	10.2	25.8	29.3
Uzbekistan	4.1	11.1	9.4	7.5

Source: Refer footnote<sup>2</sup>

If investment continues at the current pace and if sufficient export outlets are developed, the International Energy Agency ‘high case’ scenario projects in Table 3.1, the projected figures of the four countries, will come true.

<sup>1</sup> <http://www.peacenowar.net/Nov%208%2001--Oil.htm>

\* The ‘high case’ scenario assumes projects on time or sufficient export outlets and thus higher returns on investment

<sup>2</sup> Lea (1999), “Caspian Oil and Gas” OECD, Paris, p.63

**Table No. 3.2****Energy Sector Share of GDP at Current Energy Prices (low case\*) (%)**

	2000	2005	2010	2020
Azerbaijan	16.2	19.0	22.9	26.7
Kazakhstan	14.1	16.0	17.4	19.3
Turkmenistan	14.2	17.7	22.6	29.7
Uzbekistan	11.9	11.3	10.8	9.8

Source: Refer footnote<sup>3</sup>

In the 'low case' scenario, which assumes some project delays, or insufficient export outlets etc., the International Energy Agency 'low case' scenario projects as shown in Table 3.2, for of the four countries, may also actually happen.

The lack of adequate export infrastructure is probably the most difficult problem facing investors in the oil and gas sectors of Central Asia and Transcaucasia. The construction of new pipeline has become a priority. However, most routing options are facing with technical, financial, legal and political difficulties.

By 2010, Central Asia and Transcaucasia could have over 100 million tonnes of oil and 100 billion cubic metres of gas available for export. Even if there were no other limitations on exports from the region, existing oil and gas pipeline capacity would not meet future export demands. Additional oil and gas export pipelines are being proposed and in some cases are already under construction to serve the region.

The most advanced projects are for the transport of oil, particularly the AIOC consortium's "early oil" pipelines from Azerbaijan, and the Caspian pipeline consortium's line from Kazakhstan. Most proposed pipeline must pass through or near politically troubled areas, including Nagorno-Karabakh,<sup>4</sup> Chechnya,<sup>5</sup> and Afghanistan. [Refer Map No. 3.1] This has given rise to concerns that some pipelines could become vulnerable targets for terrorist activity.

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\* The 'low case' scenario assumes some project delays, or insufficient export outlets and thus lesser returns on investment.

<sup>3</sup> Ibid., p.63.

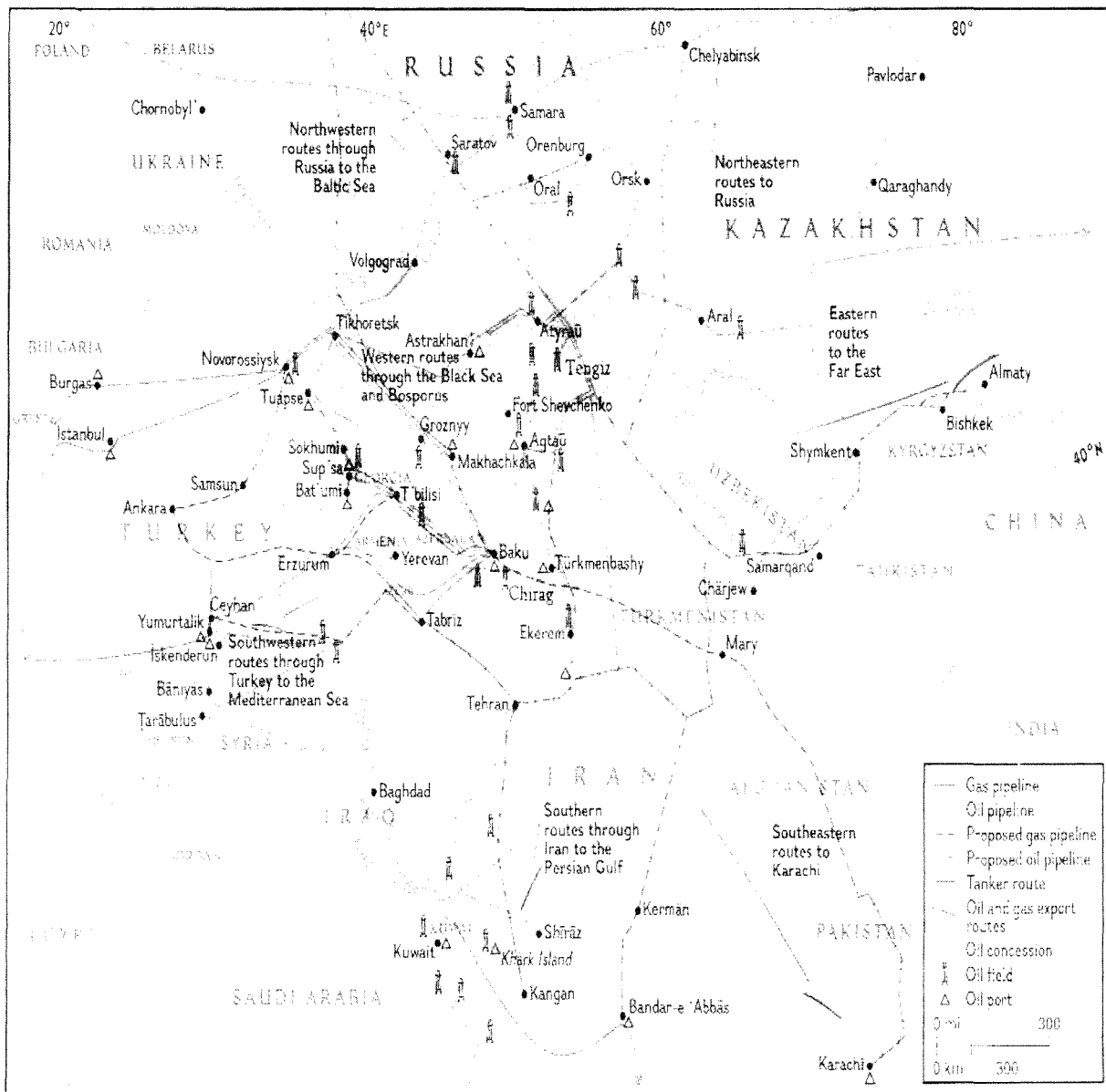
<sup>4</sup> Laurent Ruseckas (2000), "Caspian Energy Resources: Implications for the Arab Gulf" The Emirates Center for Strategic Studies and Research, p.21.

<sup>5</sup> Ibid., p21.



# Map No. 3.1

## Potential Pipeline Routes



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Source: Refer footnote<sup>6</sup>

<sup>6</sup> <http://www.travel-images.com/az-pipelinemap.jpg>

The existence of multiple exports routes could increase the energy security of both exporters and importers. However, these pipelines will be dependent on economic expenses and geographical feasibility.

Currently, five pipeline routes are proposed. They include:-

- The Northern Route: Expanding the existing pipelines links between Kazakhstan and Russia, this route is meant to further link Azerbaijan from Baku to Novorossiysk in the Russian Black seacoast.<sup>7</sup> This route is most favoured by Russia.
- Western Route: supposed to bring oil from Georgian port of Supsa, and then ship it through Black Sea to Europe through Bosphorus<sup>8</sup>. This route is favored by Turkey, Azerbaijan, Georgia and U.S.
- Southern Route: There are two possible routes: the Trans Afghan pipeline passing through Turkmenistan, Afghanistan, Pakistan<sup>9</sup>, which could be also extended to India and the second, is pipeline from Azerbaijan to the Arabian Sea<sup>10</sup> to transport Caspian oil to the Indian subcontinent.
- Eastern Route: The largest and the costliest route proposed are supposed to pass through 2000 km of Kazakhstan only before entering China in the east. This route, which is also expected to link the emerging oil fields of Xinjiang.<sup>11</sup>

### **III.1 Northern Routes:**

Among the northern routes, advocated by the Russians, both Kazakhstan and Azerbaijan could join existing Russian pipelines by building extension or new pipelines that would take their oil to Novorossiysk on the Black Sea. The Caspian Pipeline Consortium (CPC) is already busy in developing the line.

#### **III.1.1 Azerbaijan International Operating Company (AIOC) Oil Pipelines from Azerbaijan**

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<sup>7</sup> Bulent Gokay (1999), "History of Oil Development in the Caspian Basin in Michael P. Croissant and Bulent Aras (eds) *Oil and Geopolitics in the Caspian Sea Region*, Praeger: USA, p.44.

<sup>8</sup> Ottar Skagen (2000), "Survey of Caspian's Oil and Gas Resources" in Hooshang Amirahmadi (ed.) *The Caspian Region at a Crossroad: Challenges of a New Frontier of Energy and Development*, Macmillan Press: London, p. 56.

<sup>9</sup> Adelphi paper (1996), "The Politics of Oil in the Caucasus Central Asia", Oxford University Press: New York, p. 54

<sup>10</sup> Abraham S. Becker (2000), "Russia and Caspian Oil: Moscow Loses Control", *Post-Soviet Affairs*, 16: 105.

<sup>11</sup> R. K. Zhulaman and S. K. Kushkumbaev (1998), "Problems of Caspian Area: Geopolitical parallels and Meridians" *Contemporary Central Asia*, 2(1):16.

The major oil export pipeline projects originating in Azerbaijan are co-ordinated by the Azerbaijan International Operating Company (AIOC) consortium, which is also developing the offshore Azeri, Chirag and Guneshli fields. In October 1995 it was decided to split AIOC's "early oil" (pre-peak production) between two export routes; the "northern route", to be constructed to Russia's Black Sea port of Novorossiysk, as discussed above and the "western route", to Georgia's Black Sea port of Supsa. The northern route was opened in December 1997. An important issue for this pipeline has been the division of responsibilities and transit revenues between Russia's Transneft and the local Chechen oil company, through whose territory the pipeline passes. Both the northern and western pipelines will have an initial capacity of 5 million tonnes per year. More capacity will probably be required by 2003. In July 1997 the AIOC announced that it had narrowed the possible routes for the so-called "main oil" (peak production) pipeline to three, from which it is to choose one by October 1998: expanded versions of the two routes used for early oil, plus a third route to the Turkish Mediterranean port of Ceyhan.<sup>12</sup>

### **III.1.2 Caspian Pipeline Consortium (CPC) pipeline**

The most advanced alternative export route from Kazakhstan is the Caspian Pipeline Consortium (CPC) project to build a pipeline to a new loading facility near Novorossiysk. Construction of the CPC line began in 1998. The pipeline, whose schedule has slipped several times, was expected to be operational from 2001 with an initial capacity of 28 million tonnes per year, to be expanded to 67 million tonnes per year by about 2012. It is 2006 now and the pipeline is yet to be completed. A major problem has been obtaining rights of way from Russian regions.<sup>13</sup>

### **III.2 Western Routes:**

Preferred by the United States, Turkey, Azerbaijan, and Georgia, these routes are intended to bypass the Russian territories and Iran. A cheaper alternative route (\$1.5 billion) is to build an upgraded pipeline to the Georgian port of Supsa on the Black Sea. Oil will then have to be taken by tankers through Bosphorus to Europe. The

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<sup>12</sup> Hooshang Amirahmadi (2000), "The Caspian Region at a Crossroad: Challenges of a New Frontier of Energy and Development, Macmillan Press: London, p.70.

<sup>13</sup> Lea, n.2, p. 39.

current political instability in Georgia may pose a major problem. But the Abkhazia separatists would have to be taken into confidence first. Even then, there is the problem with the rebellious South Ossetia. According to a report, the people living in the vicinity of the pipeline going to Supsa made some 800 holes in the line, forcing the Azerbaijan International Operating Company (AIOC) to build a whole new line for its early oil. The other problem is environmental. Turkey claims that the Bosphorus is already too congested and that further tanker traffic will endanger Istanbul's safety. Despite these problems, this route seems to be on schedule for construction given a lack of better or more politically acceptable alternatives.<sup>14</sup>

### **III.2.1 Trans-Caspian oil pipeline from Kazakhstan-Turkmenistan**

Constructing an oil pipeline under the Caspian Sea from Kazakhstan or Turkmenistan to Azerbaijan and onward to western markets, have been under consideration, hooking the AIOC main oil pipeline in all probability. Such a route may be an alternative to pipelines for sending Central Asian oil westward via either Russia or Iran. However, construction of Trans-Caspian pipelines could be complicated due to environmental concerns and the uncertainty of territorial boundaries in the Caspian Sea region.

### **III.3 Eastern Routes:**

China signed a contract with Kazakhstan in September 1977 to build 2,000 miles long and extremely expensive pipeline (\$3.5-5.0 billion). The pipeline originates from the two fields of Kazakhstan, which China has purchased to cater to its western territories.<sup>15</sup>

#### **III.3.1 China National Petroleum Corporation (CNPC) pipeline**

An oil export route to China became more of a possibility when China National Petroleum Corporation (CNPC) acquired Kazak oil producer Aktobemunai and exclusive negotiating rights to Kazakhstan's Uzen oil field in mid-1997. Since such a pipeline would probably have to cross much of Kazakhstan, it could also provide a valuable link between production and consumption centres within the country.

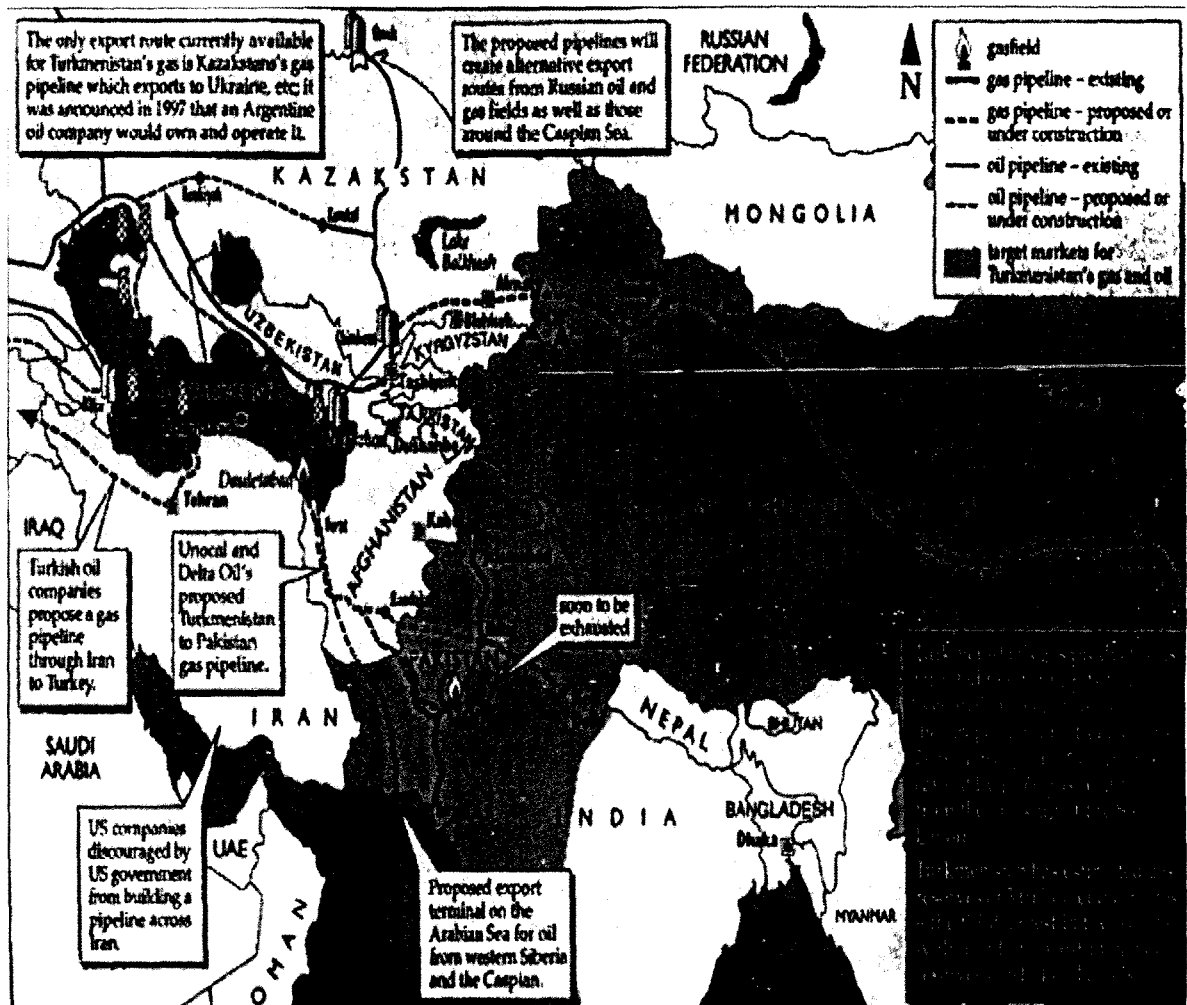
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<sup>14</sup> Hooshang, n.9, p.165.

<sup>15</sup> Ibid., p.166.

## Map No. 3.2

### CNPC Pipeline



Source: Refer footnote<sup>16</sup>

Many observers remain sceptical about the economics of such a project, the construction of which was promised by CNPC as part of its Aktobemunai acquisition. Some have pointed out that the project is viewed as a strategic one by China. Moreover, if the pipeline were routed via China's Tarim basin, Central Asian oil plus Tarim oil might provide the critical mass to justify a pipeline to Chinese consumption centres in the East.<sup>17</sup>

<sup>16</sup> <http://www.treemedia.com/cfrlibrary/library/energy/greatgamemaps.html>

<sup>17</sup> P. Stobdan (1999), "Building a Common Future: Indian and Uzbek Perspective on Security and Economic Issues", Knowledge World: Delhi, p. 142.

### III.4 Other Alternatives

The Tengizchevroil project sent almost half its 1997 oil exports by rail to various destinations, including the Baltic States and Odessa, and by ship to Azerbaijan, from where the oil was sent by pipeline and rail across Georgia to the Black Sea. In addition, the Kazak government has sent limited amounts of oil across the Caspian by tanker to Iran in swap arrangements for oil in the Persian Gulf. Several companies operating in Turkmenistan are also shipping oil via Baku and investigating swaps with Iran.

Alternative pipeline routes are exposed and vulnerable to uneven political risks and involve risk factors of national, regional, and global origins and significance. It must be noted that these risk factors are interdependent, given that national and regional borders are increasingly at the mercy of global forces. The risk factors are also dynamic due to the fact that the region as a whole is in a state of transition to a new political-economic future.

“Oil companies take a more relaxed attitude to political risk than many other firms. They are used to dealing with violent or unstable countries”<sup>18</sup>.

The fact that proposed pipelines would have to pass through two or more countries makes the situation even more complicated. The Caspian pipelines face a series of risks that originate from regional and inter-state conflicts. Ethnic movements are quite prevalent in the region. The Kurds in Turkey dominate the eastern mountains of the country and are a major source of worry for Ankara, which wishes to promote the Ceyhan route.

The conflict between Armenia and Azerbaijan over Nagorno-Karabakh is on hold and could lead to renewed fighting in the future. Presently, 25 percent of Azeri's territories are occupied by the Armenians and this makes pipelines from Baku less safe. The East-West axis strategy followed by the United States proposes to exclude Russia and Iran while including Turkey along with states in the Caucasus and Central Asia.<sup>19</sup>

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<sup>18</sup> The Economist, February 7, 1998, p.6

<sup>19</sup> Hooshang Amirahmadi, n.9, p.169.

### **III.5 Southern Routes**

Favoured by Iran and oil companies, the southern routes are economically and commercially more significant. They are cheaper to build (under \$1 billion), pass relatively through safer territories, and pose no serious environmental hazard. Significant supporting pipeline and port infrastructure also exist.

#### **III.5.1 Proposed Turkmenistan-Afghanistan-Pakistan-India Oil Pipeline**

A Memorandum of Understanding (MoU) has been signed among Turkmenistan, Afghanistan and Pakistan to build a 1 million barrel per day pipeline to carry petroleum to Pakistan and world markets via Afghanistan. The proposed pipeline would connect the Caspian Sea, Western Siberia and Kazakhstan to Pakistan, India and the Asia Pacific countries.<sup>20</sup>

#### **III.5.2 Qatar-Pakistan-India Pipeline**

A 1670 km gas pipeline from Qatar's north field extending through the port of Diba in UAE would bring gas to Karachi through sub-sea route. The pipeline is supposed to be technically feasible and it would bypass Iran. [Refer Map No. 3.4] An alternative option could be picking up Iranian gas along the way to India via Pakistan. This will bring down the costs and open up a larger market. However, due to financial weaknesses and uncertainty about the future demand growth, Pakistan appears to be less enthusiastic about the project.

#### **III.5.3 Turkmenistan-Afghanistan-Pakistan-India Pipeline**

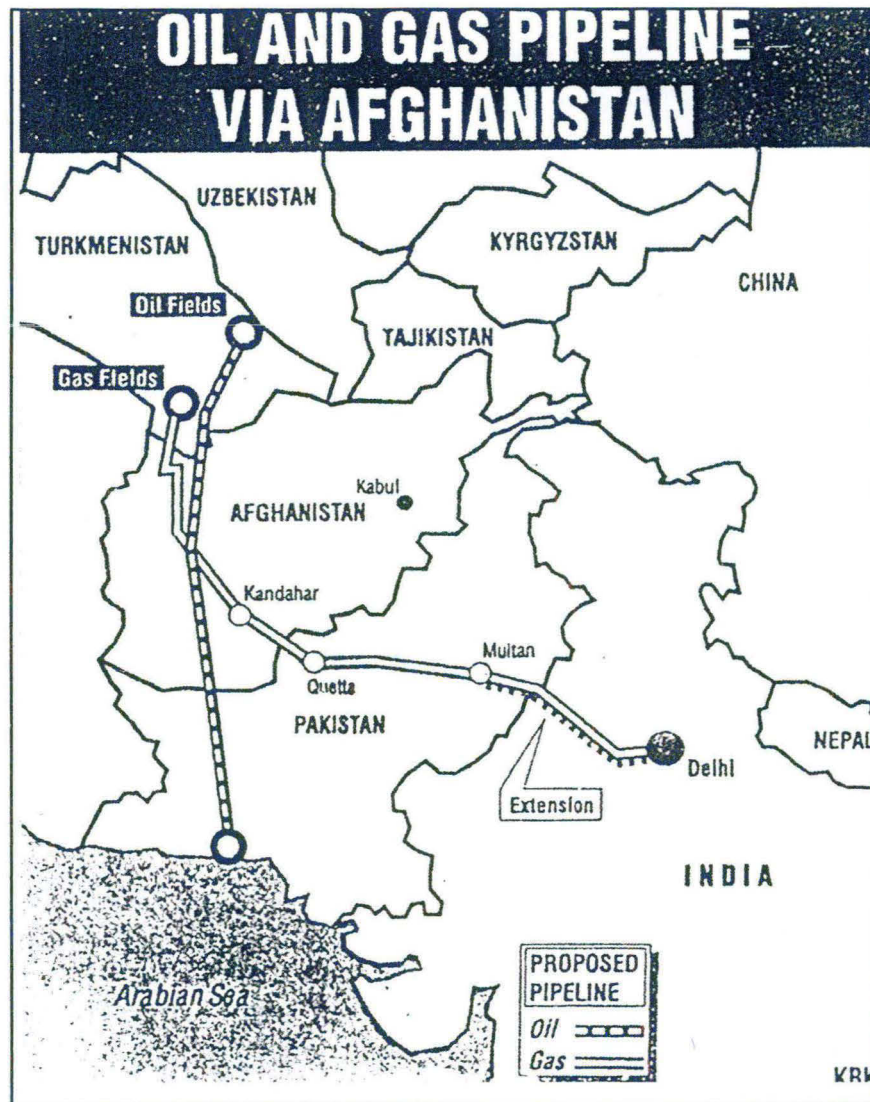
A pipeline of 1635 kms, initially proposed by Unocal and later by Asian Development Bank (ADB), are economically viable and would become a reality especially after the end of Taliban region. The proposed 48" diameter pipeline would start from Dauletabad gas field in Turkmenistan and pass through Herat, Kandahar, Quetta and Multan before entering India in the north for joining India's Hazira-Bijaipur-Jagdishpur pipeline (HBJ) arterial link. The pipeline is projected to supply 0.6 billion cubic feet of gas to Pakistan and 1.6 billion cubic feet to India. The landed cost of gas is estimated about \$ 2.4-\$3 per Million British Thermal Unit.<sup>21</sup> [Refer Map No. 3.3].

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<sup>20</sup> N. Srinivasan, (2005), "Energy Cooperation between India and Its Neighbouring Countries" in I. P. Khosla, *Energy and Diplomacy*, Konark Publishers: New Delhi, p.54.

<sup>21</sup> *Ibid.*, p.56.

Map No. 3.3



Source: P. Stobdan, *Geopolitics of Oil in Central Asia: Options for India* in “Building a Common Future: Indian and Uzbek Perspectives on Security and Economic Issues” Knowledge world, IDSA, New Delhi, 1999, p.149.

### III.5.4 Iran-India Pipeline

There are four major ways to bring gas from the Persian Gulf to India. [Refer map No. 3.4]. These are:-

1. Offshore from Persian Gulf to the Gulf of Oman and India.
2. Onshore and offshore, from Iran and along the Pakistani coast to India



3. Onshore from Iranian gas fields terminal at Assaluyeh to the Pakistani border and through Pakistan to India.
4. Shipping of Liquid Natural Gas (LNG) from Iran to India by tankers. Iran is planning to install large facilities to export LNG of South Paras field.

The expected cost for transmitting gas would be \$4 billion higher than the land route. Though it has been found that the overland pipeline option is economically the most viable (\$3 billion for transmitting 30 bcm per year of gas with low operating cost), there are serious security aspects for India, which need to be comprehensively studied.

The most preferred option for India to transport Iranian gas is through a deep-sea pipeline, though there are technical difficulties for construction and maintenance of a pipeline at a depth of three thousand meters on the mountainous seabed. The expected cost for this option would be around \$4.4 billion.<sup>22</sup>

### **III.5.5 CAOP Oil Pipeline from Turkmenistan to Pakistan via Afghanistan**

Unocal (US) and Delta Oil Company (Saudi Arabia) propose to build a crude oil export pipeline from Chardzhou, Turkmenistan, via Afghanistan to a terminal on the Pakistani Arabian Sea coast. The so-called Central Asia Oil Pipeline (CAOP), with an envisaged capacity of 50 million tonnes per year (1 million barrels per day), would have to transit through some 700 km of politically unstable Afghan territory. Fields in both the Turkmen and Uzbek portions of the Amu Darya basin, as well as the Kumkol field in central Kazakhstan, could be connected to the CAOP. The CAOP project is linked to a similar pipeline for gas, which is expected to precede it.

### **III.5.6 Uzbekistan-Turkmenistan-Kazakhstan-Russia-China-India Pipeline**

Oil and Natural Gas Corporation Videsh Limited has also considered a pipeline from Russia to Turkmenistan, Uzbekistan and Kazakhstan to Kanshi (in western China) and then along the military cease-fire line with China in the Siachen Glacier in Kashmir to India. The proposed pipeline is expected to enter India through Ladakh in Kashmir or Himachal Pradesh and then further down to Delhi. [Refer Map No. 3.5].

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<sup>22</sup> Ibid.

Map 3.4

Iran-India Pipeline



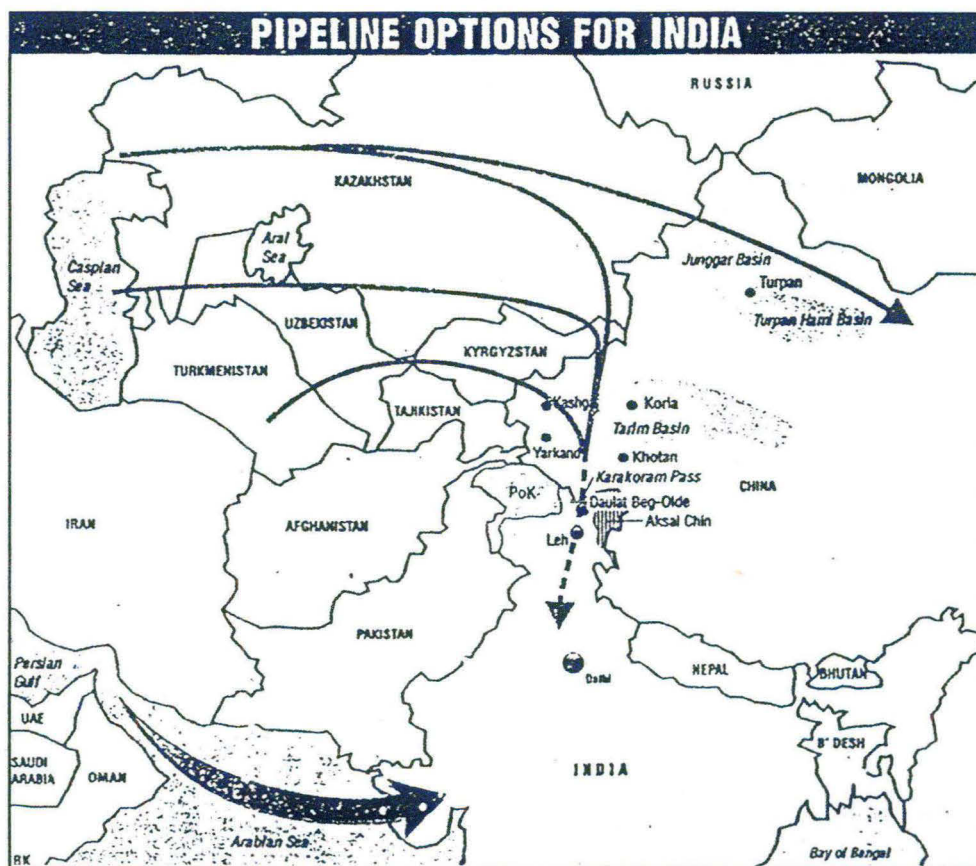
Source: Refer footnote<sup>23</sup>

<sup>23</sup> <http://yaleglobal.yale.edu/display.article?id=5411>

This is the route, which is being focused on particularly by China and Japan. As mentioned earlier, historically, India's interactions with Xinjiang, in the areas of commerce and trade, has been enormous. Most of the trade was carried out from Punjab via Kashmir and Ladakh to Xinjiang. The route known as "Silk Route Extension" (SRE) was most popular during the British era. Also known as the "Energy Silk Route", it was initiated in December 1992 by China National Petroleum Corporation (CPNC), Mitsubishi Corporation and Turkmenistan to develop a 7,000-kms gas pipeline linking Turkmenistan-Uzbekistan-Kazakhstan-China.

India had a strong political and economic presence in Xinjiang until 1954, when it had to withdraw its consulate from Kashgar. The SRE from Ladakh to Xinjiang, which has remained closed for the last four decades, following the Sino-Indian conflict in 1962, is however potentially the most viable and the shortest route between India and Central Asia.<sup>1</sup>

Map 3.5



Source: Source: P. Stobdan, *Geopolitics of Oil in Central Asia: Options for India* in "Building a Common Future: Indian and Uzbek Perspectives on Security and Economic Issues" Knowledge world, IDSA, New Delhi, 1999, p.159.

<sup>1</sup> Ibid., p.58.

Most of the border between Ladakh and Xinjiang in the west along the Karakoram range, forms the Pakistan occupied Kashmir (PoK), and the Shkys-kuum (areas ceded by Pakistan to China). In the east, it runs along the south of Kun-Lun mountains, the whole of Aksaichin. But the traditional SRE route, passing through Nubra Valley into Xinjiang at Daulat Beg Ulde, also known as Karakoram pass [Refer Map No. 3.5], does not fall under any disputed territory and can form a direct route between Ladakh and Xinjiang. Moreover, the Tarim basin, where most of the oil and gas fields have been discovered, is close to the Ladakh border. It is also important to note that a small land portion of south-west Xinjiang separate Ladakh and the Central Asian republics of Tajikistan, Kyrgyzstan and Kazakhstan. In fact, in the recent years, massive developmental projects have been envisaged to remove transportation bottlenecks across the highways, railways lines and oil pipelines.

Considering the changes that are fast occurring across our frontiers, India must recognize the fact that it will have to approach China, while making Xinjiang a land-bridge, for a direct link between India and Central Asia. In this case, oil and gas from Turkmenistan and Kazakhstan could come directly to Ladakh along the SRE or they can be first connected with Chinese pipelines in the Tarim basin, from where a new pipeline can be built up to Ladakh. There is also a plan to have a similar arrangement between Central Asia and Pakistan via Karakoram highway.

There is no Chinese apprehension about threats, ethnic or Islamic, from secular India into Xinjiang province. There are a number of positive points for the consideration of this option.

The route could be the shortest, as it will pass only through one country (China) between Central Asia and India. None of the proposed pipelines from the Caspian and Central Asia to the west or east has such an advantage.

In comparison to other pipelines routes, which face complex regional, ethnic, sectarian and political instability, the Xinjiang route is safer, as China has firmly brought the Uighur independence movement in the region under control. Nor is there any significant support for the Uighur movement from the Central Asian states. This could also mean the revival of traditional "Old Silk Route" that existed between India and China for centuries. Not only will it revive the traditional cultural and economic contracts between the Ladakhis and the Uighurs (also known as Hor by the Ladakhis), it should also help in enhancing confidence building between India and China. India's

participation in Xinjiang's development, however small should foster greater understanding between the two countries.

Sooner, or later, the border between Ladakh and Xinjiang will have to be opened by China and India for trans-border trading, as it becomes highly expensive for China to transport supplies of basic economic commodities some 7,000 km from Eastern and Central China to the western province of Xinjiang. Similarly, India spends a formidable amount of resources in lifting essential goods, particularly fuel, to the trans-Himalayan region of Ladakh.

The oil pipeline from Xinjiang to India will not only provide a new energy route, but will also cut down on the cost of transportation, incurred in lifting fuel from the refiners to the northern states of India such as Himachal Pradesh, Punjab, Haryana and Jammu and Kashmir.

Conversely, India can supply cheaper goods to China's Xinjiang province, cutting down transportation costs of bringing goods from the eastern parts of China. Interestingly enough, Indian goods are extremely popular in Xinjiang, as demonstrated during the trade fair held in Urumchi in 1992.

The same pipeline could be further extended to join the Junggar and Turfan-Hami basins of Xinjiang, the Russian grid in Siberia, and via Mongolia to the Far East. Lately ONGC has also joined as a partner in CNPC projects in Kazakhstan. Similarly, ONGC Videsh has signed an agreement with Russia's oil company, Lukoil, envisaging exploration and exploitation of oil by both the countries on each other's territory, as well as in third countries, including the Central Asian states and the Caspian Sea resources. A long-term tie-up among Russia-China-India for exploration of oil, as well as in the field of long-distance pipelines construction across Asia will go a long way in establishing integrated energy security for Asia.

Cross-border interactions among India, China and the Central Asian countries will create a new dynamic and enhancing economic cooperation and political goodwill. Active trade and economic linkages through the pipeline network, highways and possibly an air-service from Delhi-Srinagar-Leh to Central Asian cities would revive the status of India as a Central Asian power. This will significantly help India, breaking out of the South Asian contradiction and obsession with neighbouring Pakistan.

### **III.6 Proposals for gas exports**

The preferred fuel of the future “Gas”, in recent years has emerged as an alternative for oil. Gas not only reduces heavy dependence on oil but also diversifies the energy sources. Inter-country high-pressure gas pipeline is the most cost effective way of importing gas to demand centres as strong economies of scale exist for natural gas pipeline.

#### **III.6.1 Gas Pipeline from Turkmenistan to Turkey via Iran**

Since 1993, Turkmen authorities have promoted the construction of a gas export pipeline from Turkmenistan via Iran to Turkey. Initially, a pipeline with a capacity of 15 Billion cubic metres per year has been planned with a view to supplying the Turkish market. Future upgrades to 28 - 30 billion cubic metres per year are envisioned in order to supply markets further west. Pursuit of this line is complicated by US sanctions legislation on projects involving Iran.

#### **III.6.2 Gas Pipeline from Turkmenistan to Iran**

In late 1997, Iran completed a 200-km pipeline from southern Turkmenistan to north-eastern Iran, where it is to link up with an existing pipeline to power stations in north-western Iran. This line may be incorporated into the project to export gas to Turkey. Turkmenistan will see little revenue from this project for several years, since gas deliveries will be used to reimburse Iran for construction costs.

#### **III.6.3 Trans-Caspian Gas Pipeline from Turkmenistan**

Construction of a gas pipeline under the Caspian Sea from Turkmenistan, near the Kazak border, to Azerbaijan and onward to Georgia and Turkey have been considered by several stakeholders. Like the trans-Caspian route for oil, it offers an alternative to pipelines via either Russia or Iran.

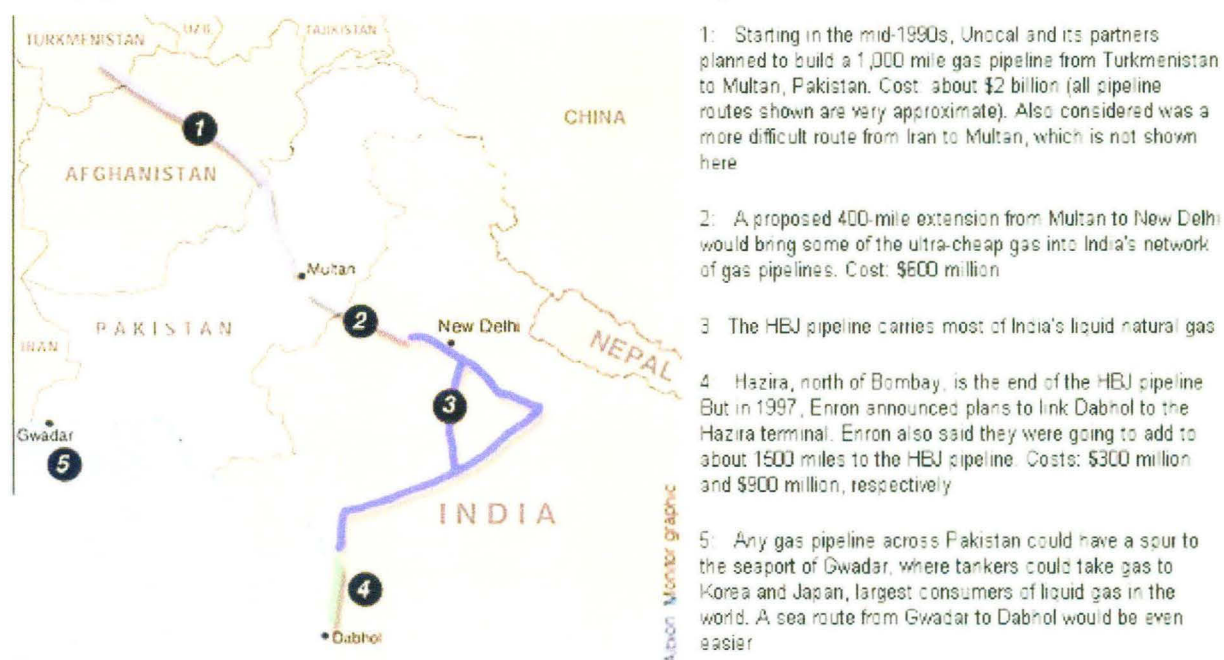
#### **III.4 Gas Pipeline from Turkmenistan to Pakistan via Afghanistan**

Following a memorandum of understanding signed in 1993, Bidas (Argentina) proposed building a pipeline from Turkmenistan through Afghanistan to Pakistan, [Refer Map No. 3.6], with a planned annual capacity of around 20 billion cubic metres and the possibility of extending the line to northern Indian markets. In 1995, the Bidas project appeared to lose favour when the Turkmen government signed another memorandum of understanding with a consortium composed of Unocal (US) and Delta (Saudi Arabia), which is also planning an oil pipeline through Afghanistan. Unocal and Delta would purchase 20 billion cubic metres per year at the Turkmen

border and market it at their own risk. Bridas claims that is still pursuing its version of the pipeline and has taken the rival consortium to court. However, the major problem for both is the lack of political stability in Afghanistan, through which both pipelines would pass. Questions have also been raised about whether future Pakistani demand alone will be enough to justify such a pipeline, while any extension to India would entail overcoming political difficulties between the two South Asian neighbours.

**Map 3.6**

**Gas pipeline from Turkmenistan to Pakistan via Afghanistan**



Source: Refer footnote<sup>25</sup>

**III.6.4 Gas Pipeline from Turkmenistan to China**

In 1994, Turkmenistan and China signed a memorandum of understanding to build a 28 billion cubic metres gas pipeline from Turkmenistan, via Uzbekistan to the east coast of China, with the possibility of deliveries to Japan either through a pipeline extension or as Liquid Natural Gas by ship. If routed near China's Tarim basin, the pipeline might provide the possibility of moving Chinese gas to market as well. The main problems are the costs involved in building such a long line, the complexities of dealing with three or more transit countries, and uncertainty about the competitiveness of Turkmen gas in East Asian markets. There is even some question about

<sup>25</sup> Source: [http://www.thedossier.ukonline.co.uk/Maps%20&%20Charts/ENRON\\_Indian\\_pipelines.jpg](http://www.thedossier.ukonline.co.uk/Maps%20&%20Charts/ENRON_Indian_pipelines.jpg)

Turkmenistan's ability to supply the amount of gas necessary to amortise the project, especially in the light of simultaneous negotiations on other large-scale export projects.

### **III.6.5 Trans-ASEAN Gas Pipeline (TAGP)**

The Association of Southeast Asian Nations Ministers on Energy concluded the Memorandum of Understanding on the Trans-ASEAN Gas Pipeline Project in July 2000.

The master plan study for the Trans-ASEAN Gas Pipeline identified seven new possible gas interconnections covering a length of 4,500 kilometres, with total investment requirements of US \$ 7 billion. The TAGP project would optimise the utilization of natural gas by linking gas demand and utilization centres with a pipeline infrastructure tapping the gas fields of the Andaman Sea, the Gulf of Thailand, the South China Sea, and Kalimantan and Sumatra in Indonesia.<sup>26</sup> These makeshift arrangements for the export of oil and gas do not solve the problem, which requires a systematic and stable arrangement to ensure free flow of oil and gas to international market. The cost of transportation should also be reasonable. The current arrangement involves substantial costs.

The need for new pipelines is being felt by the oil exporting countries as well as by the major buyers. The question is how and where the new pipelines be constructed. Russian attitude and also the condition and capacity of its pipelines has further intensified the need for new exit points for the Caspian Sea oil. Moscow has put in quota and tariffs on existing pipelines and have exercised its monopoly control to cut, slow down or otherwise alter (through restrictions), the export of oil and gas from Azerbaijan, Turkmenistan and Kazakhstan.<sup>27</sup>

A straight line across Iran from the Caspian Sea to the Persian Gulf would have provided the shortest route, but Iran was considered an undesirable partner for a number of reasons: its theocratic government, concerns about its ongoing nuclear program and the United States' sanctions regime, which greatly restricts western investment in the country.

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<sup>26</sup> N. Srinivasan, n. 20, p.9.

<sup>27</sup> Sheel K. Asopa (2001), "The Caspian Great Game: Geopolitics of Oil and Natural Gas", *Contemporary Central Asia*, 5(3): 8.



These issues narrowed down the choice of route for western interests to an outlet on Turkey's Mediterranean coast, to be reached via two of the three countries of the South Caucasus region – from Azerbaijan via either Georgia or Armenia. A route through Armenia was politically inconvenient for three basic reasons:

- The unresolved military conflict between Armenia and Azerbaijan over Nagorno-Karabakh
- Turkey's close ethnic ties with Azerbaijan, because of which it had closed its border with Armenia
- Political tensions between Armenia and Turkey stemming from the unresolved dispute regarding the Armenian Genocide.

To conclude, all proposed pipelines have advantages and disadvantages. If one pipeline is supported by or is in favour of one power, it is disadvantageous to other. Therefore, any future pipeline route will depend on consensus among the great and regional powers.

## **Chapter-IV**

# **Great Power Interest in Central Asia**

This chapter will analyse the interests of Great Powers in the Central Asia oil and gas reserves. Three major powers are dealt in detail. These are:-

a) Russia - a power that is connected with the region historically and geographically.

b) USA - a super power that got opportunity to enter the region only after 1991 in order to secure oil and gas reserves. Post 9/11 terrorist attacks, US renewed its strategy to focus on geopolitical issues.

c) China - an emerging economic power that needs energy resources for rapid industrialization.

#### **IV. 1 Russia**

The relations between the newly independent republics and Russia remains of pivotal importance for the whole region. As the most influential actor in the shaping of the international relations in Central Asia over the past decades Russia is the logical starting point while making an assessment of the Eurasian political situation, even its sphere of influence is not like, what it is used to be.

Russia is not the external power to the Caspian Caucasus region. It does possess significant influence in Central Asia on account of geography, history, culture and politics. Russia shares Caspian Sea along with Azerbaijan, Kazakhstan and Turkmenistan, which is the largest land locked body of water in the world located in the Caucasus. Russia's position as regard to the status of the Caspian Sea has undergone significant changes over the past decade. In the early 1990s, Russia's policy in the Caspian viewed the oil resources not as the end, but rather as the means for achieving its geopolitical goal of keeping the region under Russia's influence.

Throughout the 1990s, Russia maintained that Central Asia is part of Russian sphere of influence and the others, especially western countries, had no business there. With the economic dependency of the newly independent republics on Russia and with the large military presence in the region, a legacy of soviet days Russia's dominant position in the region seemed incontestable.<sup>1</sup> Under the communist rule, when a Soviet Republic's instructor was directed entirely toward Moscow, almost all pipelines were built

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<sup>1</sup> Boris Rumer (2000), "The Powers in Central Asia", *Survival*, 44(3): 57.

northward across Russian territory. Today, Russia insists, that new pipelines follow the same routes.<sup>2</sup> As a result, Russia regards this region as its strategic backyard in its periphery. Russia's current policy towards oil in the region is characterized by two basically contradictory schools of thought. The first has been espoused by foreign minister Yevgeny Primakov and other officials, who interpret Russian policy within traditional balance of payment.<sup>3</sup>

The main objectives for Russia's security policy in the Caspian region include:

- Preventing the region from becoming a transit route for military, financial and human support for Chechen rebels operating in Chechnya;
- Containing the escalation of regional conflicts from reaching a point where they could destabilize security and stability in Russia's North Caucasus
- Preserving former Soviet military infrastructure in the region, including key air defence, space and early warning facilities, as well as to maintain Russian military presence at bases in Georgia and Armenia
- Maintaining an effective military force to protect Russia's oil reserves and transportation routes and external interventions
- Addressing soft security threats emanating from the region such as illegal migration, drug trafficking and smuggling of contraband goods to Russia.<sup>4</sup>

This group views oil as a central instrument in maintaining that influence. In terms of international competition for the region's oil, the Primakov School sees development and export of oil in zero-sum terms, rather than as a cooperative effort from which everyone can benefit.<sup>5</sup> They see the substantial involvement of Turkey, the US, the UK and other western countries in the Caucasus and Central Asia as a potential erosion of Russia's

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<sup>2</sup> Lutz, Kleveman (2003), *The New Great Game: Blood and Oil in Central Asia*, Atlantic Books: London, p.8.

<sup>3</sup> Adelphi paper (1996), "The Politics of Oil in the Caucasus Central Asia", Oxford University Press: New York, p.16.

<sup>4</sup> Shirin Akiner (ed.) (2005), "The Caspian Politics, Energy and Security", Routledge Curzon: London & New York, p. 257.

<sup>5</sup> Ibid., p.16.

influence.<sup>6</sup> Russia can influence the Central Asian and Transcaucasian countries' chances of becoming significant gas producers and exporters in a number of ways:

- as an investor or partner in field development and pipeline projects
- as a transit country for their exports to Former Soviet Union and other markets
- as a competitor in most of these markets
- as a market in its own right.

The second school almost diametrically at odds with the first has been supported by Prime Minister Viktor Chernomyrdin and other oil-industry officials. They welcome western participation in the development of Caspian oil, as a means of ensuring access to capital and advanced technology. They have worked for Russian inclusion in Western consortia in order to improve their own technology, to establish foothold in world oil markets, and to share in the profits available on those markets.<sup>7</sup> The arrival of the United States in the region as a result of their war with Afghanistan and the establishment of military bases in Central Asia has a vast impact on the local political situation of Russia, China, Iran who took it as an indirect threat.

However, Russia's steady political and economic decline in the 1990s has weakened its grip on the situation and internal disagreements leading to the non-formulation of a clear policy towards Central Asia. Russian soon realized that it is not capable of securing this whole region by itself and is not interested to do so. The memory of the Afghan-Soviet war in the 1980s and the continuing fighting within its borders in Chechnya weighs heavily on Russia's mind and there is a real fear that harsh military action in Eurasia will provoke terrorist responses on Russian targets, such as the bomb attacks in Moscow in 1999.<sup>8</sup> Ever since that time Russia has been fearing with its internal security and what it labels as pervasive threats, fearing that the country may disintegrate<sup>9</sup> especially secession by its, predominantly Muslim territories. That is why Russia quickly decided that it had more to gain by approving American military presence in Central Asia than by opposing it. Therefore, Russia's interests in Central Asia are prompted as much by economic as political motives. However, Russia is very cautious about the possibility of

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<sup>6</sup> Ibid., p.16.

<sup>7</sup> Adelphi paper, op cit.16

<sup>8</sup> Boris Rumer (2002), op cit. 6.

<sup>9</sup> Stephen J. Blank (2002), "Putin's Twelve-Steps Programme", *The Washington Quarterly*, 25(1):152.

the US succeeding in bringing the energy resources of Central Asia under their control. This fear was evoked by a speech US Secretary of State Collin Powell gave in Tashkent, Uzbekistan, in December 2001, stating that “U.S. interests in Central Asia exceed Afghanistan alone.”<sup>10</sup>

Russia viewed Caspian Sea region, which is strategically located on the southern periphery<sup>11</sup> with the oil reserves not only as an end, but rather as a means for achieving its geopolitical goal of keeping the region under Russia’s influence.<sup>12</sup> It controls the critical transportation routes in and around the region. High-level officials have stated publicly that since Russia developed the region’s existing infrastructure under the Soviet Union, it owes Russia a debt for this service.<sup>13</sup>

Russia has proved on multiple occasions that it is willing to use its dominant position through its energy transport route. It wants to obtain the majority of future energy exports to the world market through Russian territory. For now, the energy producing countries around the Caspian depend heavily on Russia for transport. Russia had a monopoly on oil export from this region. This gave Russia the power to unilaterally raise tariffs and effectively constrain Caspian exports according to its wish.<sup>14</sup> The role of the Russian government in pipeline politics during this period was characterized by three strategies.

- Promoting the interests of Russian companies in all major Caspian projects;
- Giving the ‘green light’ to foreign investment in Caspian projects undertaken on Russian territory (e.g. the CPC project);
- Using high-level political contacts to reassure Azerbaijan and Kazakhstan that Russia would not use transportation routes through its territory as a means of exerting political pressure on these countries and undermining their economic interests.<sup>15</sup>

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<sup>10</sup> Rumer, op.cit, 2002, p.64.

<sup>11</sup> Nirmala Joshi, (2000), “Russian Interests in the Caspian Sea region” in Shams-ud-ddin (ed.) Geopolitics and Energy Resources in Central Asia and Caspian Sea region, Lancers Books: New Delhi, p.33.

<sup>12</sup> Shamin Akiner, n.4, p.249.

<sup>13</sup> Adelphi paper, n.3, p.16.

<sup>14</sup> J.H. Kalicki (2001), “Caspian Energy at the Crossroads”, *Foreign Affairs*, 80(5): 123.

<sup>15</sup> Akiner, n.4, p. 253.

There are some more examples like halted payment for coal mined in Kazakhstan's Karaganda region, obstructing capital flow to the new state, and reduced Kazakhstan's fuel supplies.<sup>16</sup> Simultaneously Russia has been accused of fermenting conflicts in Trans-Caucasus, particularly in supporting the separatist groups in Azerbaijan and Georgia.<sup>17</sup> By blocking and delaying the new projects, the Russian oil companies have managed to enter into all the major deals.<sup>18</sup>

In general, Russia has adopted four main guidelines to retain its influence. Firstly, Russia is trying to maximize its transnational oil company's role in the development of the Caspian area. Secondly, Russia, has only one oil export transit country, and still wants to ensure a majority share of all Caspian export transits. Thirdly, until recently Russia has been using until recently, the uncertain legal status of the Caspian sea to try and diminish confidence in unilateral offshore development projects by claiming that these projects are unacceptable unless they were sanctioned by all littoral states. Finally, Russia remains a competitor of the Caspian oil producing countries and a market in its right.<sup>19</sup>

#### **IV. 2 The United States of America**

The American oil companies are seeking the cheapest routes to market oil (through Iran or from Baku to Supsa) and are keen to get the US sanctions against Iran lifted. The US government opposes the Iranian route for political and 'security' reasons. While it supports the Baku-Supsa route as a better alternative but the oil companies find Baku-Supsa less practical in view of the costs involved. Besides, the Baku-Supsa route cannot become a Main Export Pipeline (MEP) owing to environmental and security reasons.

The American interests towards the Caspian region are also the result of their geopolitical and economic interests, strongly influenced by their thirst for oil. The United States, the only remaining superpower, wield an ever-larger influence on Central Asian politics and the economy. The US has no historical ties with the region that would justify an increased

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<sup>16</sup> Adelphi paper, op.cit.3.

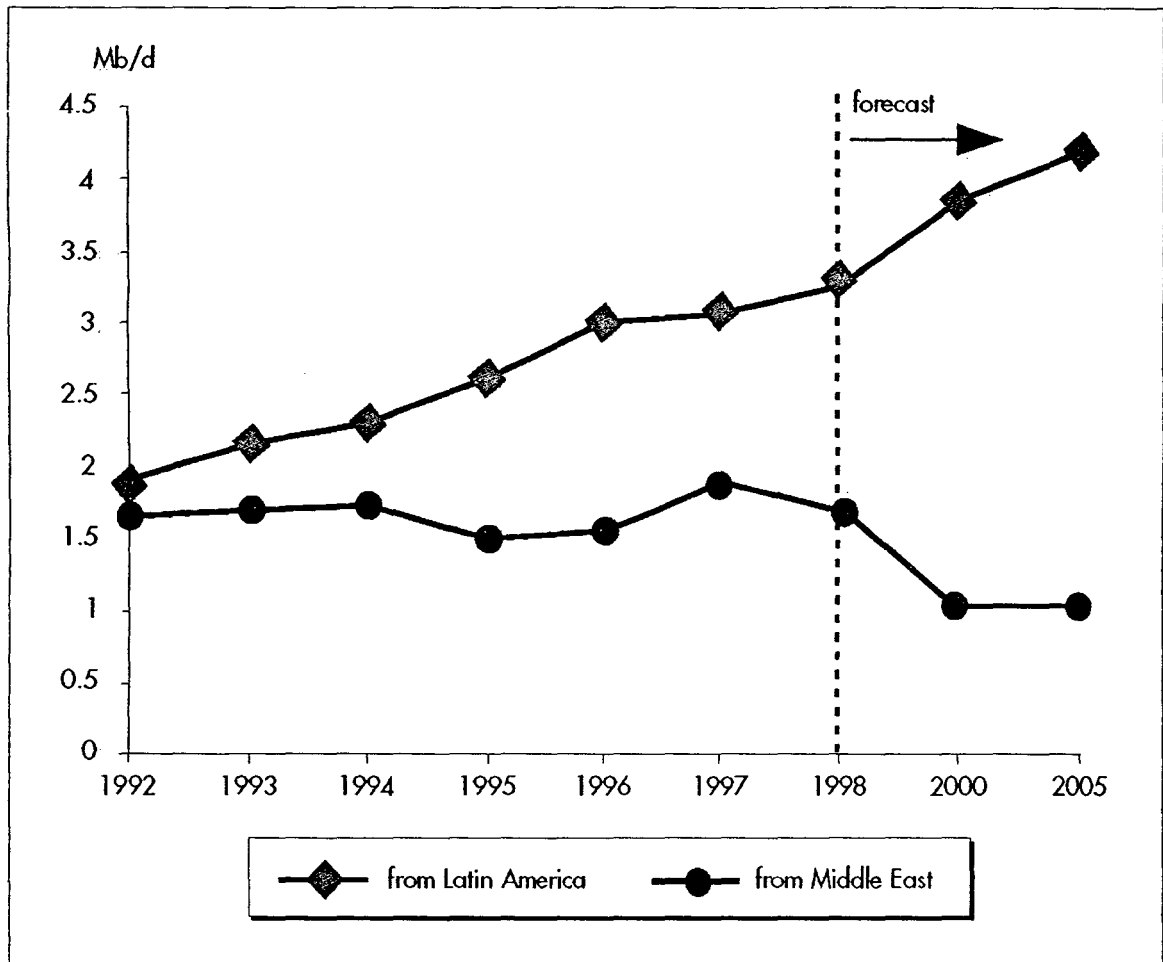
<sup>17</sup> P. Stobdan (1999), "Building a Common Future: Indian and Uzbek Perspective on Security and Economic Issues", Knowledge World: Delhi, p. 135.

<sup>18</sup> Ibid, p.136.

<sup>19</sup> G. Bhagat, (2002), "Pipeline diplomacy the Geopolitics of the Caspian Region", *International Studies, Perspective*, (3): 316.

American presence here. The recent opening up of Central Asia offered ample geostrategic opportunities for the United States due to the geographical location of the region.

**Figure No. IV.1**  
**Import of Oil by US**



Source: Lea, Caspian Oil and Gas, OECD, 1 Jan. 1999, p.90.

As figure, IV.1 shows the import of oil by US from Latin America and Middle East from the year 1992 to 2005 in Million Barrel per day. Imports of oil from Latin America from 1992 onwards has superceded from that of the Middle East. The import from Middle East is constantly going down. It shows that US is now banking more on Latin America oil than Middle East.

Before the September 11, 2001 attacks on the US and the declaration of the war on terrorism, American economic policy objectives for Caspian region focused on two



issues. The US wanted to encourage Russia to better protect US corporate investment in the Russian energy sector and the US wanted to play a part in the development of the Caspian hydrocarbon industry, while avoiding a Russian export monopoly.<sup>20</sup> American presence in the region, particularly direct military presence, helps to contain China, whose increasing interests in Eurasia are likely to clash with American interests in the near future.<sup>21</sup> It also serves as a check on Iran, a country mistrusted by the US. U.S. feelings towards Iran are best exemplified by US president Bush's classification of Iran as part of an 'axis of evil' during his January 2002 state of the union speech.<sup>22</sup> The United States are trying to minimize western direct investment in the Iranian oil industry. The Iran –Libya Sanctions Act (ILSA) of 1996 prohibits American companies and their foreign subsidiaries from conducting business with these countries.<sup>23</sup> Without western investment, Iran is incapable of playing an important role in the development of the Eurasian oil and gas resources.

Before the war against terrorism and the resultant American military presence in Central Asia, U.S. geostrategic interests were best served with stability in the region. This would enable the local hydrocarbon economy to develop. Before 2001, this could be done without large scale American military presence, which would have provoked strong Russian, Chinese and Iranian opposition.

The geostrategic policy goals of the U.S. consisted of three points:

- The U.S. government wanted to prevent the preaching of Islamic fundamentalism that is believed to be sponsored by Iran.
- Preventing the export of nuclear technology from the former soviet states.
- Impeding Russian domination of Eurasia.<sup>24</sup> According to Ariel Cohen, the USA does not want Russia to dominate the region and restore its empire in the region, which will become a destabilizing factor for other states including USA.<sup>25</sup>

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<sup>20</sup> E. L. Morse and J. Richard (2002) "The Battle for Energy Dominance", *Foreign Affairs*, 81(2): p.26.

<sup>21</sup> M. Ayoob (2000), "South-West Asia after the Taliban", *Survival*, 44(1): 60.

<sup>22</sup> R. Takeyh, "Re-imagining US-Iranian Relations", *Survival*, 44(3): 23.

<sup>23</sup> M.P. Amineh (1999), "Towards the Control of Oil Resources in the Caspian Basin", St. Martin's Press: New York, p.99.

<sup>24</sup> *Ibid.*, p.146.

<sup>25</sup> R.G. Gidadhuli (2000), "Economics and Politics of Caspian Energy Resources" in *Geopolitics and Energy Resources in Central Asia and Caspian Sea Region* by Shamas-ud-din (ed.), Lancers Book: New Delhi, pp.115.

Clearly, these geo-strategic objectives would certainly benefit the economic objectives of the U.S. Countries like the U.S., Russia and China have been making efforts for establishing their strongholds in the area and the neighbouring countries like Turkey, Iran, Saudi Arabia, Afghanistan and Pakistan who are making equally intense efforts for creating a position of influence in this region. After the discovery of the huge untapped hydrocarbon resources, the Central Asian Caspian region has become a major oil and gas frontier for the United States. The US official estimate the oil and gas reserves of the Caspian region as high as 200 billion barrels of oil and 279 trillion cubic feet of gas, which places the region at the third position in the world following the Middle East and Russia.<sup>26</sup> Therefore, it can be argued that the American did succeed in projecting the region on the global oil map.<sup>27</sup> The geostrategic location of Central Asian and the Caspian region in the center of the West-East and North –South communication corridor has catapulted it in our times into the cortex of a geopolitical struggle over its sizeable hydrocarbon resources, which is sometimes called a “new round of the Great Game”. Caspian oil is looked upon by Brezinski as the “best tool” of integrating the Central Asian and Trans-Caucasian countries into the world market and turning them away from Russia, thus forever eliminating the possibility of post-imperial integration. Behind its interests in oil, there lies a deep desire for controlling its flow to China and India, for isolating and marginalizing the influence of Iran and Russia- the two traditional players in the field. It is using Turkey as a proxy to expand its political, economic and military interests in Central Asia and the Caucasian. Trying in orienting the oil transit routes towards Turkey, it desire to weaken Russia economically by ending its monopoly over the transport of oil to the west through its territory.

In the words of Lord Curzon, (1889) “Turkestan, Afghanistan, Transcaucasia and Persia- to many these names breath only a sense of utter remoteness or a memory of strange vicissitudes and of moribund romance. To me, I confess they are pieces on a chessboard upon which is played out a game for the domination of the world”.<sup>28</sup>

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<sup>26</sup> Geoffrey Kemp, *Energy Super bowl: Strategic Politics in the Persian Gulf and Caspian Basin*, Washington DC, Nixon Center for Peace and Freedom, 1997,p.14.

<sup>27</sup> Shams-ud-ddin,p.175.

<sup>28</sup> Z. Brezinski

Brezinski<sup>29</sup> hints at a potential situation in which US and China will fight for world domination. In this, US may use Central Asia to create conditions for disintegration of China. According to him, this might begin with Zinjiang, western province of China, as this is a Muslim dominated region. Although official US policy on the transportation of Caspian oil has supported the development of multiple pipelines, the US has in effect focused on the creation of an East-West oil transportation corridor attempted to reduce energy flows and regional trade along the North-South, Iran-Russia axis.

US in order to dilute Russian interference, has also denied Iran from lucrative transportation tariffs.

**Table No. 4.1**  
**Oil Reserves, Production and Consumption in US**

Years	Reserves as on 1 Jan (in billion barrels)	Production (in 1000 barrels per day)	Consumption (in 1000 barrels per day)
1980	26.4	8569.0	-
1990	25.9	7417.0	16,305.0
2000	21.0	5821.6	18,745.0
2002	22.0	5770.0	-

Source: Refer footnote<sup>30</sup>

As table 4.1 shows oil reserves production and consumption of US in the years 1980, 1990, 2000 and 2002. Reserves in billion barrels are gradually decreasing from 26.4 in 1980 to 22.0 in 2002. the depletion of reserve is significant in the 1990s as where it was 25.9 in 1990, there it just remained 21.0 in 2000. Similarly, production too is gradually declining with the significant decrease in the decade of 90s, as the production in 1000 barrels per day in 1980, 1990, 2000 and 2002 is 8569.0, 7417.0, 5821.6 and 5770.0 respectively. Though figure for consumption is not available for 1980 and 2002 but the two Data in 1990 and 2000 suggests that consumption too has gone high with the coming of 90s.

<sup>29</sup> Z. Brezinski, (1997) "The Grand Chessboard: American Primacy and Its Geostrategic Imperatives", Basic Books: New York, p.12.

<sup>30</sup> Robert J. Beck (2002), World Wide Petroleum Industry Outlook, 2003-07 projection to 2012 (Nineteenth Edition), Tulsa: Oklahoma, 2002, p.105

Yet the United States produces 35 percent less oil today than it did in 1980s, leaving the United States more dependent on the foreign suppliers. This is why finding alternative energy sources have become an urgent US foreign policy priority.

**Table No. 4.2**  
**Percentage Share of Different Sources in US Energy Consumption**

<b>Years</b>	<b>Oil</b>	<b>Natural Gas</b>	<b>Coal</b>	<b>Nuclear</b>	<b>Hydro and others</b>
1980	43.6	26.0	19.7	3.5	7.2
1990	39.8	22.9	22.8	7.3	7.2
2000	28.9	23.4	22.7	8.1	6.9
2002	39.8	21.8	23.0	8.5	6.9

Source: Refer footnote<sup>31</sup>

Table 4.2 evenly explains the percentage share of different sources in US energy consumption in the four years of 1980, 1990, 2000 and 2002. The percentage share of oil was largest in 1980 with 43.6 % and smallest in 2000 with 28.9 %. The data is gradually decreasing with a drastic decrease during the 90s falling to 28.9 % in 2000. But interestingly, oil share has improved in the two years after 2000 with reverting back to the status in 1990 that is of 39.8 %. The share of natural gas was largest in 1980 with 26.0 % and smallest in 2002 with 21.8 %. Unlike oil and natural gas, coal's share is gradually increasing with 19.7 % in 1980, 22.8 % in 1990, 22.7 % in 2000 and 23.0 % in 2002. Nuclear share also is gradually increasing with largest in 2002 that is 8.5 % and smallest in 1980 that is 3.5 %. Major transformation can be seen in 1990 when its share increased to 7.3 % from meager 3.5 % in 1980. Hydro and others share is though decreasing but it has been more or less consistent with just 0.4 % decrease over the years.

By 2020, it is expected that US oil production would supply less than 30 percent of US oil needs.<sup>32</sup> The US has been following a well-devised foreign policy towards the Gulf. In this oil plays a crucial role both in the short and long terms. The recent Iraq war of 2003

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<sup>31</sup> Ibid., p.86

<sup>32</sup> Report of US Dept of State, Washington DC, <http://www.state.gov/secretary/rm/200317300.htm>

to overthrow Saddam was not a surprise in the region. Whether it is Saudi Arabia or Iraq or Iran, the goal is oil. U.S. President Carter in his address on 23 January 1980, said “Any attempt by an outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America and as such an assault will be repelled by any necessary means including the military force”.<sup>33</sup> Ample evidence shows that the American efforts are actively plying to replace British and establish its control over the oil producing region.

Consequently, American policy on Caspian oil cannot be explained in terms of its energy needs. Its prime objective is to have control on the region to preserve its dominance on international oil. Since the Second World War, the basic objective of American foreign policy has been to build a global regime to establish its hegemony. The global regime has various facets, the economic, political, social and strategic. In the economic sphere, in addition to trade and finance, the U.S. policy also attempted to conceive a global oil regime. The global oil regime thus was the part of the U.S. hegemony project. Consequently, it became imperative that U.S. dominates the international oil directly or indirectly.

The American dominance of international oil resulted from careful planning by both, the government and the corporate officials. Furthermore, as the aftermath of Suez showed, the control of oil as a major political resource for the United States in its dealing with Europe.

America has adopted the strategy of linking oil to national security on the ground of its oil dependence. In the post cold war, world order after the breakup of the Soviet Union though America emerged as the only super-power, the possibility of new center of power emerging from Europe and China made it imperative to restructure the global regime to meet the potential challenges to its hegemony.

American policy on Caspian oil can be constructed as follows:

- The strategic salient features of the region directly depends on its oil reserves.
- Caspian region is land locked; therefore, American companies would not be interested in going there unless the deal is big. A high size oil reserves in the Central Asia will make sense in investing in the pipeline routes.

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<sup>33</sup> [http://en.wikipedia.org/wiki/Carter\\_Doctrine](http://en.wikipedia.org/wiki/Carter_Doctrine)

- American presence in the region is directly related to the strategic stakes determined by the oil reserves.
- Big reserves are needed to draw global attention and competition to create threat perceptions and justification for direct presence or intervention if need be.<sup>34</sup>

### IV. 3 China

Among the great powers, which are closely interested in the region, China has the advantage of the geographical closeness and rapid economic progress. China has strategic interests in Central Asia. Among them security and energy are most crucial.

Chinese oil import's dependency is expected to grow significantly in the coming decades. In 1993, China became a net oil importer. China's demand for and dependence on international energy are ever growing.

**Table No. 4.3**

**China's Oil Imports During 2001 to 2004**

Year	Oil Imports
2001	74.16 million tons
2002	69.41 million tons
2003	92.00 million tons
2004	102.00 million tons

Source: Zhao Huasheng (2006), "China's Security and Energy interests in Central Asia", Paper presented on February 2006 at Centre for Russian and central Asian Studies, School of International Studies, Jawaharlal Nehru University: New Delhi.

As table 4.3 shows China's oil imports during 2001 to 2004. It has increased over the years from 74.16 million tonnes in 2001 to 102.00 million tonnes in 2004, which is a very positive development. Though it got decreased meagerly in 2002 to 69.41 % million tonnes but it bounced back to 92.00 million tonnes in 2003.

The sharp rise of the energy price added to the energy pressure on China. In 2004, China paid nearly US \$ 60 more than that in the previous year for each tonne of imported oil, to

<sup>34</sup> Girijesh Pant (2000), "America's Caspian Oil Policy", in Shamas-ud-din (ed.) *Geopolitics and Energy Resources in Central Asia and Caspian Sea Region*, Lancers Books: New Delhi, p.175.

a sum total of over US \$ 7 billion more because of price rise. That is why China wants to enhance its energy security by securing future imports of Central Asia. Central Asian energy can be of great significance for China. Currently China imports only about 2 million tonnes from Central Asia. After the pipeline is put into operation, China will at least import about 10 million tonnes of oil per year from Central Asia.<sup>35</sup> This figure may increase in near future around 20 million tonnes and more. Domestic production is not expected to rise spectacularly in the near future. There are some oil deposits in western China, but these are too far away from the eastern Chinese markets and too small to be exploited economically.<sup>36</sup>

China's main objective in its energy policy are the diversification of its energy imports in order to protect their economy from, steep oil price hike or gulf war or sanctions like Iraq etc. Growing imports by oil tankers, presents a strategic vulnerability. China is looking for such inland alternatives and new supply sources from Central Asia. In view of the reality and potential instability in the Middle East and Africa, the security issue for long-distance transportation by sea is not the ideal situation. China's oil import to the tune of 50-60 % still came from West Asia. Iran alone, accounts for 14 percent of China's annual oil import. Central Asia is one of the regions for China to realize the energy import diversification.

In addition, the Chinese government perceives a geo-strategic necessity to defend its interests in Central Asia. Beijing fears encirclement by its main geo-strategic competitor the U.S. The United States has bases in Japan, in the Philippines, in South Korea and Taiwan in Central Asia, and now China is going to be encircled".<sup>37</sup> Other strategic interests of China in its relationship with Central Asia are the Chinese fear of secessionist movement among its Uighur population and tensions on its Russian borders.<sup>38</sup>

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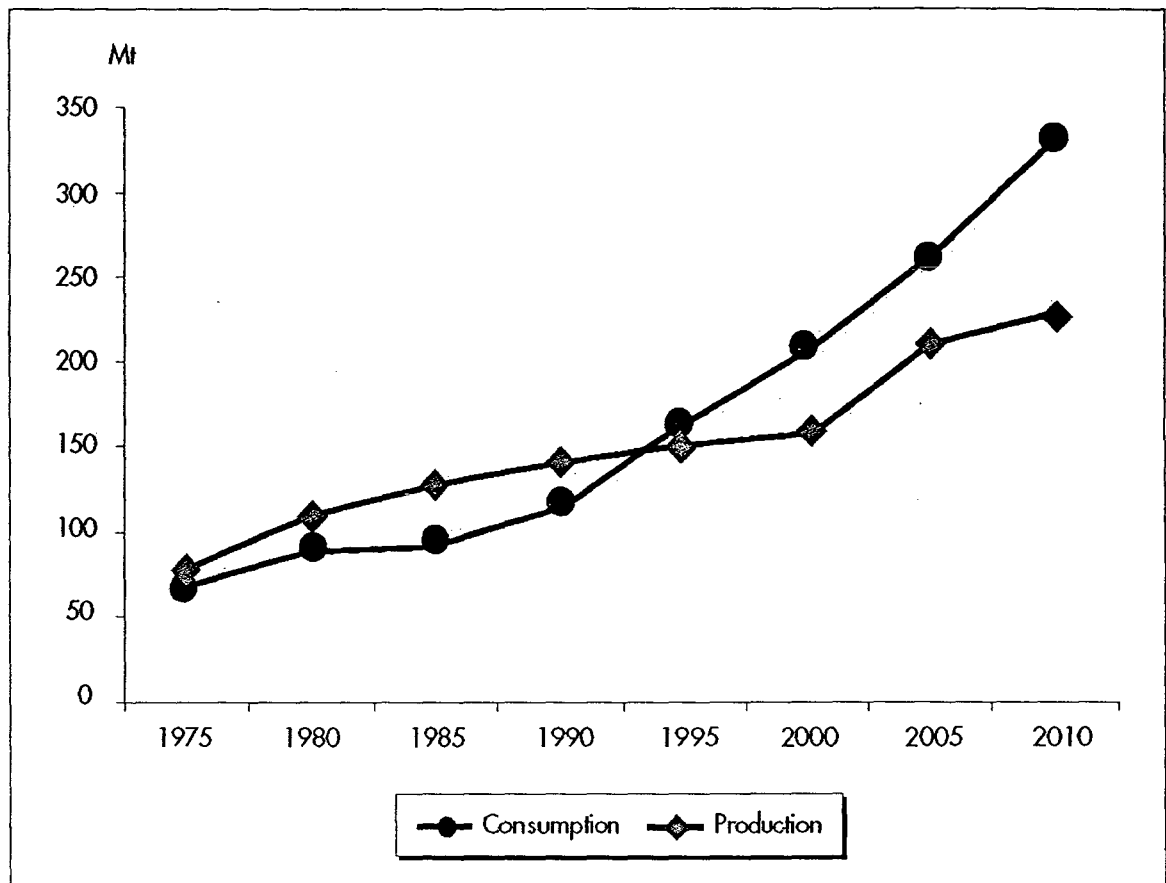
<sup>35</sup> Zhao Huasheng (2006), "China's Security and Energy interests in Central Asia", Paper presented on February 2006 at Centre for Russian and central Asian Studies, School of International Studies, Jawaharlal Nehru University: New Delhi.

<sup>36</sup> Xu, X (1999), "The Oil and Gas Links between Central Asia and China: A Geopolitical Perspective", *OPEC Review*, 23(1): 43.

<sup>37</sup> Lutz Kleveman, n.2, p.115.

<sup>38</sup> A. Rashid (2002), "Jihad: The Rise of Militant Islam in Central Asia", Yale University Press: New Haven , p.202.

**Figure No. IV.2**  
**China's Consumption and Production of Oil**



Source: Lea, Caspian Oil and Gas, OECD, Paris, 1 Jan. 1999, p.95.

Figure IV.2 shows the China's consumption and production of oil from 1975 to 2005 and goes on to forecast until 2010. While consumption is growing rapidly with a sharp rise in 1990, there production quite consistent and takes a sharp shift upwards in 2000 and thereafter a consistent growth forecast. Presently, China's energy imports come from the Middle East and about 22 % from Africa. The degree of China's dependence on Middle Eastern and African oil exceeds 70 %. The nine million Muslim Uighur are closely related to the Turkic people of Central Asia.<sup>39</sup> This Muslim minority live in Xingjiang, in the northwestern part of China. Among the Uighur minority there is a secessionist group operating in this huge Chinese province. China has been nourishing its economic and political ties with the Central Asian republics, making sure not to cross Russia.<sup>40</sup>

<sup>39</sup> Lutz Klevevan, n.2,p.99.

<sup>40</sup> Boris Rumer, n.1, p.57.



In Xingjiang's Tarim Basin large oil reserves exists along with the area being located in prime territory as a transport corridor for oil from Kazakhstan. In addition, if separatist movement success in near future in Xingjiang, Beijing will loose a potential energy resource region. Therefore investing in the Central Asian oil industry by Chinese state oil companies, like in example in Kazakhstan will not be beneficiary.<sup>41</sup>

In brief, thus China's energy policies may be concluding as below:

- Chinese have taken steps to build strategic petroleum reserves. Chinese took a decision a few years ago to build up strategic petroleum reserves for anywhere from 30 to 75 days of consumption.
- There is a growing awareness in China to ensure the security of Sea Lanes of Communication (SLOC's). The vulnerable transit points are straits of Hormuz, Malacca, and Taiwan. It is estimated that 80 percent of Chinese oil imports pass through the straits of Malacca.
- The Chinese are emphasizing the building of pipelines from energy rich neighbors. Thousand kilometers of pipeline has already been initiated from northwestern Kazakhstan to Xingjiang. When it gets completed, it will essentially allow the Chinese to tap into the Caspian region's oil. It is a major development, which will bring the Chinese at least 10 million tons of oil per annum. The Chinese are also very keen to build a 2500 km pipeline from East Siberia to Daikin.<sup>42</sup>
- A very aggressive Chinese presence to get exploration and production sharing contracts in oil producing countries around the world. Now the Chinese tendency is to go for long-term supply agreements and assurances.<sup>43</sup>

For China's energy import in near future, Middle East will still be the main source, and Central Asia or any other region may not possibly replace the Middle East, but it can effectively change the state of China's over dependence on the Middle East.

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<sup>41</sup> Amineh, n.23, p.128.

<sup>42</sup> I.P. Khosla (2005) (ed.), "Energy and Diplomacy" Konark Publisher: New Delhi,p.150.

<sup>43</sup> Ibid.

To conclude, Russia's policy in CARs is to keep the region under its permanent influence and keep big powers at bay. United States interest in the region has risen only after disintegration of USSR. US, by having a control over this region, want to protect its geo-economic as well as geostrategic interest (especially after 9/11 attacks). China, which has the advantage of geographic closeness, has both strategic and economic interest in Central Asia. China's demand for energy is ever growing and therefore it is putting all its effort to diversify its import base. Thus, all these great powers are actively engaged in the region for the control over energy resources.

# **Chapter-V**

## **Role of Regional Powers**

The fifth chapter deals with the 'Role of Regional Powers'. This chapter deals with the emergence of regional players like Iran, Turkey, Pakistan, Azerbaijan, Georgia and India's role in Central Asia. It will also highlight the interest of the regional powers keeping in view their allegiance with the great powers.

## **V.1 Iran**

Iran's unique geographical position between Caucasian, the Caspian Sea, Central Asia, the Persian Gulf, Gulf of Oman, Turkey, Iraq, Afghanistan and Pakistan made it an important player for Central Asia. Iran's interest in this region is to see United States as their principal opponent. They see any increased American influence in this region as serving to limit their own influence in it. Secondly, Tehran sees Turkey as an ally of the USA and its presence has basically expanded USA influence. Thirdly, Tehran fears that the lesser the intervention of its non – Persian borderlands the greater the chances of the break-up of Iran. It is especially concerned that Iranian Azeris - who outnumber those in independent Azerbaijan – will seek either independence or unification with their cousins' towards north of the border. Baku – Ceyhan pipeline which Washington has strongly supported the construction, would allow for the export of Azeri oil across Georgia and Turkey to the Mediterranean coast. This route will bypass both Russian and Iranian territory, with neither Moscow nor Tehran reaping the revenues from oil transiting the Baku – Ceyhan pipeline other than these routes going through their territories. The Baku – Ceyhan pipeline also reduces Russian and Iranian ability to control the export of oil from Azerbaijan, that dependence on routes through Russian and Iranian territory would have allowed.<sup>1</sup>

The Iranian Vice President Hasan Habibi at the Eurasian Summit in Almaty claimed that "Iran has the necessary infrastructure, pipelines, refineries, and export terminals, having ample capacities to transport huge amount of raw material".

Habibi also added that Iran was ready to help all its neighbours to transport their oil via Iranian territory, as the implementation of this project is "economically viable". Iran not only provides oil transit facilities to the Caucasus and Central Asian countries

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<sup>1</sup> Mark N. Katz, (2006), "Prospective Impacts of Russia and Iran" in Richard M. Auty and Irdra De Say Sa, "Energy wealth and Governance in the Caucasus and Central Asia", Routledge: USA and Canada, p. 220.

but also wanted to create a single market economy in the future.<sup>2</sup> Representing the world's fifth biggest oil exporter,<sup>3</sup> Tehran's agent are at risk in their oil deals with Central Asia.

"Iranians are a danger to the United States because we are the only people in this region not to put up with American domination. The sanctions against us hurt us less than they hurt the American economy itself",<sup>4</sup> this was put forward by Hamad Honarvar.

The Iranian oil industry is currently not in great shape. As in other sectors of the economy, many state-owned plants and facilities are out of date. The NIOC (National Iranian Oil Company) lacks hard currency reserves for the necessary investment in modern production techniques, such as gas reinvention. On the subject of the Caspian pipelines, Iran can get the Caspian oil to the markets at much lower costs than the Baku-Ceyhan pipeline according to the planning director of the NIOC.<sup>5</sup> In October 2002, Iran urged Caspian oil producers to ignore US sanctions and to pipe their oil through Iran. "The 'golden gate' from the Caspian Sea to the Persian Gulf is now open," he added. The Persian route would be shorter, cheaper, and safer than any of the other planned pipelines through Russia, the South Caucasus, or Afghanistan.<sup>6</sup> This fact is secretly conceded by the American oil executives. European companies have taken advantage of the absence of American competition on the Iranian oil market. French corporation is currently conducting a feasibility study for the Iranian pipeline. In its efforts to keep the United States out of the Caspian region, Iran has found an expected ally in Russia, although it is allegedly susceptible to Russian appeals for keeping westerners out of the Caspian Sea<sup>7</sup>

American activities in this region have led both countries to temporarily set aside their centuries-old enmity. Now that they no longer share a common border after the fall of the Soviet Union, their relations have grown almost cordial. The Russian ambassador in Iran, states that "since we no longer have a common border with Iran, we share

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<sup>2</sup> Nalin Kumar Mahapatra (1999), "Caspian Cauldron: Role of the States and Non-State Actors", *Contemporary Central Asia*, 3(3): 47.

<sup>3</sup> Lutz Kleveman, (2003), "The New Great Game: Blood and Oil in Central Asia", Atlantic Books: London, p.117.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid., p.135.

<sup>6</sup> Ibid.; p.136.

<sup>7</sup> Ibid.

many identical views on political issues”.<sup>8</sup> “We are in agreement with Tehran that no other great foreign power should gain influence at the Caspian Sea.”<sup>9</sup>

The factors responsible for making Iran a central actor in Caspian oil exports may be summarized as follow.

- The northern part of Iran has a total oil refining capacity of some 650,000 barrels per day, which could be adapted with relatively low cost for oil swap arrangements with Azerbaijan, Kazakhstan and Turkmenistan,
- Iran has a number of crude and product pipelines within 50 to 150 kilometres of its ports on the Caspian Sea, with a combined capacity of one million barrels per day. This capacity could be used for transportation of oil to its refineries.
- Iran has extensive export facilities in the Persian Gulf, capable of exporting over 2.5 million barrels per day, above its present export levels.<sup>10</sup>

The break up of the Soviet Union in 1991 changed the realities governing the Caspian Sea. The most obvious of these changes is the fact that the number of littoral states increased from two to five. Iran and Russia share a long and turbulent history. There had been extensive relations between the countries in the eighteenth century and during the time of Nadar Shah Afshar’s reign in Iran. But the nature of these relations changed when Peter the Great, the then Russian Emperor, showed a desire for southward expansion. Russia fought two wars with Iran in the early nineteenth century. Following these wars, the treatise of Golestan (1813) and Turkmenchai (1828) were signed between the two countries.<sup>11</sup> These treaties did not make direct reference to the Caspian Sea’s legal regime, the only mention of this sort can be found in the fifth chapter of the ‘Golestan Treaty’ and the eighth chapter of the Turkmanchai Treaty I, which raised the issue of shipping in the Caspian.<sup>12</sup> In 1921, the Russians signed a new treaty with Iran in order to remedy some of the undesirable elements of the treaties of Golestan and Turkmanchai. In addition to the cancellation of the

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<sup>8</sup> Ibid., p.139.

<sup>9</sup> Ibid., p.140.

<sup>10</sup> Nassi Ghorban (2000), “By Way of Iran: Caspian’s Oil and Gas o\Outlet” in Hooshang Amirahmadi (ed.), “The Caspian Region at a Cross road”, Macmillan press Ltd.: USA, p. 149.

<sup>11</sup> Shirin Akiner (ed.) (2005), “The Caspian Politics, Energy and Security”, Routledge Curzon: London & New York, p. 231

<sup>12</sup> I. Nourian, (1996). “The Legal Regime of the Caspian Sea”, *Central Asia and the Caucasus Review*, 5(14): 149-150.

capitulation regime and the rights of Russian citizens in Iran, the Russians evacuated several Iranian Islands in the Caspian, including Ashuradch, and left them to the Iranian authorities. However, the aspect on equal right of shipping given to both countries was the most important part of the treaty. 'Both committed parties agreed to have the right of shipping equally under their flags in the Caspian Sea'.<sup>13</sup> This treaty put an end to Russia's exclusive right to have warships in the Caspian. According to this new treaty, the Iranian government could use both cargo ships and warships in the Caspian. In 1931, they concluded the 'Treaty for Residence, Commerce and Sailing, between Iran and the USSR'. This was the first document in which it was implied that the Caspian Sea belonged to the two countries. The last treaty between the two countries on the issue of the Caspian Sea was concluded in 1940; it addressed the issues of shipping and commerce.<sup>14</sup> Following the disintegration of the Soviet Union, Iran was faced with a new set of dynamics regarding this northern border. Iran now shares frontiers with five northern neighbours instead of one. These are Russia, Kazakhstan, Turkmenistan, Azerbaijan and Armenia. With the exception of Armenia, the four other states had shores on the Caspian Sea. This break-up presented both opportunities and threats for Iran. Previously all these countries had to a great extent been dependent on the central government of Russia. Now, they would have to seek venues to enhance and reinforce their independence from that country. Iran's potential role in this respect was undeniable from a cultural perspective. The newly independent states shared a long and close history with Iran as well as a common religion. From a geo-strategic point of view, Iran served as the nexus between the Caspian Sea and the Persian Gulf. This meant that Iran was the most obvious route to link the untouched markets in Central Asia and the Caucasus to the outside world.

The break-ups of the Soviet Union heralded a new 'Great Game' in the international community, which was far from favourable. The best-known consequence of this state of affairs was the US policy to underplay Iran in the development and transport of the hydrocarbon resources of the Caspian basin. Other issues that concerned Iran at this time included initial worries about the emergence of an independent republic of Azerbaijan. Some academics and policy analysts predicted that the Iranian Azerbaijanis, who compose roughly a quarter of the Iranian population, would be

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<sup>13</sup> A. Khodakov, (1995), "Legal Framework for co-operation in the Caspian Sea" *Central Asian and the Caucasus Review*, 4(10):150.

<sup>14</sup> Shirin Akiner, n.11, p. 332

tempted to join the new Republic of Azerbaijan. Such predictions, however, soon proved to be very far fetched. Meanwhile, the forces that wanted to limit the influence of Iran in the Caspian Region began a campaign to present the Islamic Republic as having expansionist and disruptive ambitions, warning the new states that Iran would try to export its revolution to their borders. In the background further complicating most of the above concerns, loomed the issue of the legal regime of the Caspian Sea. While there were several bilateral treaties between Iran and Russia in regards to the use of the sea, the legal status of the Caspian Sea was not entirely clear in any of them. There were also the disturbing prospects of the militarization of the Caspian Sea, particularly since the republic of Azerbaijan had expressed interest in closer co-operation with NATO.<sup>15</sup> Economic benefits of the Caspian Sea for Iran usually focused on the potential income that might be desired from the transport of hydrocarbons across Iranian territory. Possible pipeline projects were undoubtedly an important consideration. Iran wants to make its own territorial regional hub to serve as the norms between the Caspian region and the Persian Gulf. This would enable Iran to use Persian Gulf as a gateway to central Asia and the Caucasus. Iran would also gain by providing a more direct route to Europe for the rich sheikdoms in the south, since the journey would be cut by several days if a shipping route were developed from Bandar -e- Anzali to Astrakhan. Thus, for Iran, the Primary issue was common economic benefits.

Such a strategy requires that the interests of the players be as closely intertwined as possible. Thus, Iran resolved to follow a short term and long term policy. The short term policy of Iran was to persuade the littoral states to avoid exploitation of the seabed either by themselves or by foreign companies until a solution was found to the problem of the regime of the Caspian Sea. The long term policy of Iran was to encourage the littoral states to find the most favourable solution for the legal regime of the Caspian Sea, and to make decision based on consensus.<sup>16</sup> Thus, the key question with regard to the status of the Caspian Sea is whether the new littoral states should be considered as countries formed due to the disintegration of the USSR, or countries that have recently gained independence<sup>17</sup>. Consequently, Iran argued, the Caspian

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<sup>15</sup> Ibid., p. 234

<sup>16</sup> Ibid., p. 236

<sup>17</sup> M. Mir- Mohammad Sadegi (1995), "The Legal Regime of the Caspian", *CACR*, 4(10):, no. 10, 164-165.



could not even be considered as a sea according to some definitions and there were doubts as to whether it could be based as a lake.<sup>18</sup>

## V.2 Turkey

Turkey is a Eurasian country that stretches across the Anatolian peninsula in South-western Asia and the Balkan region of South-eastern Europe. Turkey borders eight countries: Bulgaria to the northwest; Greece to the west; Georgia, Armenia and the Nakhichevan enclave of Azerbaijan to the northeast; Iran to the east; and Iraq and Syria to the southeast. In addition, it borders the Black Sea to the north; the Aegean Sea and the Sea of Marmara to the west; and the Mediterranean Sea to the south. Turkey is clearly an influential regional player in the Caspian region. The evolution of events will significantly affect the future of the region's oil developments – particularly the route of long-term oil pipeline. As part of its support for multiple export options in the Caspian Region, the US government has endorsed the Turkish route as one of the several acceptable oil exports from the Caucasus and Central Asia.

The appearance of new states in Central Asia and the Caucasus region at the collapse of the Soviet Union caused a radical shift in the foreign policy of Turkey, and triggered a search for means of tactical political-economic penetration into these countries. Turkey's efforts in this regard have been motivated by a desire to spread the Turkish model of government and society – consisting of parliamentary democracy, relatively free – market economy, and secularism in a Muslim society – as well as to take advantage of the mutual development opportunities that cooperation can create. For Turkey, these opportunities include guaranteed access to vital energy resources; lucrative oil transports revenues as well as increased diplomatic clout and strategic importance. For the new republics, these opportunities include the prospect of attracting investment and technological expertise, as well as establishing a secure route for distribution of their products to the West.

Azerbaijan, Turkmenistan, and Kazakhstan – the Turkic – speaking former Soviet states of the Caspian region – have attracted the greatest interest on the part of Turkey among the newly independent states. The source of this interest is not only the linguistic, ethnic, religious, and cultural affinity shared by Turkey and these countries,

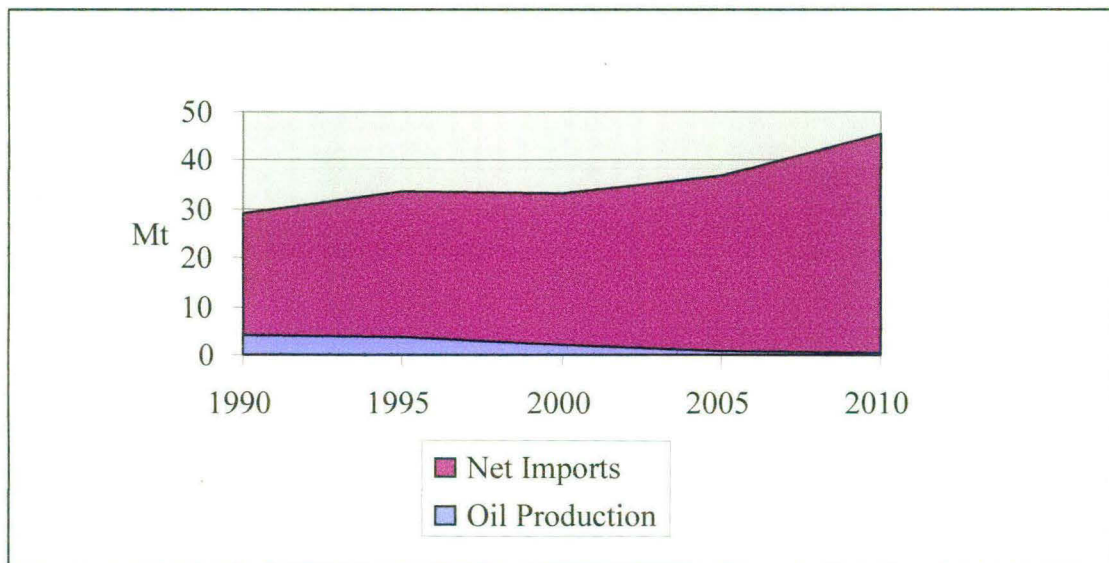
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<sup>18</sup> B. Budagev, "The Caspian: It is a Sea or a Lake?", *CACR*, 4 (10), p. 170.

but also the tremendous oil and gas reserves possessed by the Caspian States. According to the Turkish president, “We see this rich region of oil and gas reserves not just as a source of energy, but as an element of stability. Just as the founders of the European community saw coal as a source of peace and stability for Europe, so we see oil and gas in our region serving the same role.”<sup>19</sup> Turkish foreign policy makers pay special attention to bring Turkmen gas to Turkey. Currently Turkey’s main gas supplier is Russia, and Ankara aims to add Iran and Turkmenistan to the list to diversify import of this strategic resource. The desperate need for gas in newly industrialized central and eastern Anatolian regions is another motivation for increasing the amount of gas importation.

**Figure V. 1**

**Turkey’s Dependence on Oil Imports**



Source: Lea, Caspian Oil and Gas, OECD, 1 Jan. 1999, p.94.

Figure V.1 shows turkey’s dependence on oil imports. The graph shows net imports in oil production from 1990-2005 and goes on to make forecast until 2010. While the oil production from the beginning is low and keeps on decreasing, becoming almost nil in 2005, there the net import of oil has increased over the years. It shows total dependence of Turkey in the coming future over the oil imports.

Turkey expects to face serious energy shortfalls in the near future. Figure V.1 shows decreasing oil production and increasing import. Estimates show that energy demand

<sup>19</sup> Temel, Iskit (1996), “Turkey: A New Actor in the Field of Energy Politics”, *Perceptions*, 1(1): 71.

will rise by 200-300% in the next 10-15 years, and Iran may become important suppliers. The proposed gas pipeline through Iran to Turkey that would bring first Turkmeni and than possibly Iranian Gas to Turkey's huge market may indeed become a reality in view of the economics and Turkey's reluctance to become overly dependent on Russia for energy supplies. Turkmenistan consistently backed a plan of laying a Turkmenistan-Turkey-Europe gas pipeline via Iran. Russia has also been accused by Azerbaijan of feeding the ongoing conflict over Nagorno – Karabakh by transferring large amounts of sophisticated weaponry to Armenia free of charge. Russian Defence Minister Rodionov admitted the facts of this affair in 1997.<sup>20</sup> From Turkey's perspective, its long – time ally, the United States has the potential to play a very constructive role in the region as a counterweight to the ambitions of Russia and Iran and as an advocate of Turkish interests. By increasing, US influence in Turkey, Russian military expert Anton Surikov pointed out “we are witnessing U.S. intensive efforts to create a sanitary cordon around Russia in Ukraine, Georgia, Azerbaijan and the Central Asian States. The euphemism for this plan is creating a so-called ‘Eurasian transport corridor’. Our duty is to counteract these plans.

A country like Turkey, which is expected to become increasingly dependent on fuel imports in the coming decades, would be particularly vulnerable to such manoeuvres. Aware of the threat that Russian monopolization of oil transport would pose, then U.S Energy Secretary Federico Pena stated in mid-1997 that the U.S. supports “The concept of multiple pipelines and multiple pipeline routes through the region as oil and gas are extracted”.<sup>21</sup> Turkey perceives its rivalry with Iran and Russia over the location of the routes of the Caspian oil and gas pipelines as a struggle between the forces of the good that is Turkey and the evil that is Russia and Iran, trying to destroy the emerging new states.<sup>22</sup> The Turks are convinced that neither Russia's nor Iran's policy towards these states is conducive to furthering Turkey's national interests or the interests of the smaller Caspian states. Ankara believes that Russia is interested in recapturing its former privileged and dominant status in the region, whereas Iran is

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<sup>20</sup> Stephen J. Blank (1995), “The OSCE, Russia, and Security in the Caucasus”, *Helsinki Monitor*, 6(3):69-71.

<sup>21</sup> Michael P. Croissant and Bulent Aras (ed.) (1999), “Oil and Geopolitics in the Caspian Sea Region”, Praeger: USA, p.242.

<sup>22</sup> S. Boloukbasi (1997), “Ankara's Baku-centred TransCaucasia Policy: Has It Failed ?”, *Middle East Journal*, 5(1): 80-94.

perceived as a country bent on preventing the regional countries from becoming hostile collaborators with the West and with Turkey.

### V.3 Pakistan

Pakistan is a country located in South Asia that overlaps with the Greater Middle East. It has a thousand-kilometre coastline along the Arabian Sea in the south and borders Afghanistan and Iran to the west, India to the east and the People's Republic of China in the far northeast.

Pakistan's interest in Central Asia took off after the collapse of the USSR. But since it perceived a new strategic opportunity perception and its policies in inevitable led India to show more interest in region too. Therefore, Central Asia figures in Indo-Pakistani rivalry in South Asia as more than a sideshow. Pakistani perception and policies reflects particularly strongly the *melange* of the Islamic, geo-political and economic interests that intersect in the policies of state active here. Pakistan tried its hand at all three objectives strategic, political, economic and religious ideological. It quickly recognised the new state and tried to move into Central Asia by sponsoring both Pakistani Airlines linkages to the area and by floating schemes of transport projects and oil pipeline through Afghanistan into Pakistan and its ports. Pakistan efforts also to play an Islamic card in this region.<sup>23</sup>

September 11, 2001 changed that entire scenario. Once again, Pakistan became a frontline state because of being Muslim country and shares border with Central Asia. And US war on terrorism found the best place for attacking on Afghanistan. That is why the Bush administration pressured Musharraf to withdraw his support for the Taliban regime and side with the United States. Bush's infamous dictum of "you are either with us or you are against us" left no room for neutrality. Ambassador Peter Tomsen, Special envoy to Afghanistan from 1989 to 1992 said "The Great Game never ends, only the players change. Recently, the United States had become more involved". When the Soviets invaded Afghanistan in 1979, Tomsen served in the political section of the American embassy in Moscow. "We warned the Russian not to attack the country but in reality we wanted them to step into that trap."<sup>24</sup>

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<sup>23</sup> Ahmad Rashid, "The China factor", *Far Eastern Economic Review*, 30 January 1994, pp.12-30.

<sup>24</sup> Lutz Kleveman, n.3, p. 246.

The Khyber Pass is the most important pass connecting Pakistan with Afghanistan. Throughout history, it has been an important trade route between Central Asia and South Asia and a strategic military location. The actual pass summit is 5 kilometres inside Pakistan at Landi Kotal. The pass cuts through the Safed Koh mountains, which are a far southeastern extension of the Hindu Kush range.<sup>25</sup> For thousands of years, traders and their camel caravans have travelled through here en route from China to Europe. From Alexander the Great to the British, the pass across the White Mountains served as an invasion route in either direction.

The generals of the Great Game spent many sleepless nights deliberating how to protect or conquer this strategic passage. This new Great Game does not stop at Khyber Pass, as the catalysts, in this struggle for power and pipelines in Central Asia lie here in Pakistan. Afghanistan is a perfect corridor for goods from Central Asia. These countries needed an Asian outlet, especially for oil and gas and Pakistan provides good geographical location for this.

The Taliban and the Bhutto Government were more inclined to use the Argentinean Company Bidas, which competed for the project with Unocal. Bidas seemed the more suitable partner for the pipeline construction because it did not need any loans from international financial institutions, whose first requirement would be international recognition of the Taliban regime. Lobbying hard for Unocal, U.S. Ambassador Simmons had heated arguments with Bhutto over her support for Bidas. In early November 1996, the Pakistani President sacked her government on charges of corruption, which many Pakistanis believe was the result of American pressure. The new government, led by Nawaz Sharif, turned its back on Bidas and declared its support for Unocal. Islamabad's official recognition of the Taliban regime soon followed.<sup>26</sup>

It has been estimated that Pakistan would obtain a total estimated income of \$14 billion over 30 years out of which \$8 billion would be the transit fee that Iran has offered the country, plus \$1 billion in taxes and \$5 billion in energy cost savings.<sup>27</sup>

The Turkmen authorities and foreign oil and gas companies operating in Turkmenistan are interested in the Pakistani gas market. This interest is due to the fact

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<sup>25</sup> [http://en.wikipedia.org/wiki/Khyber\\_Pass](http://en.wikipedia.org/wiki/Khyber_Pass)

<sup>26</sup> Lutz Kleveman, n.3, p.243.

<sup>27</sup> N. Srinivasan, (2005), "Energy Cooperation between India and Its Neighbouring Countries" in I. P. Khosla, *Energy and Diplomacy*, Konark Publishers: New Delhi, p.61

that the Pakistani gas market, although not yet very big, is among the world's most dynamic. In 1985, Pakistan consumed 8.1 billion cubic metre of natural gas. By 1995, consumption was up to 18.2 billion cubic metre, representing an average annual growth of 8.4%. Moreover, between 1993 and 1996 Pakistan's gas industry implemented a 30- 40% expansion of its transmission and distribution networks, including 700,000 new connections. TPES is forecast to grow rapidly and the gas share of energy use, currently 38%, is expected to increase. Pakistani authorities think consumption could exceed 40 billion cubic metres per year by the turn of the century.<sup>28</sup>

Currently, Pakistan is self sufficient in gas, and indigenous production is forecasted to increase to 28 billion cubic metres in 1998. In longer terms, however, output growth is expected to fall increasingly behind demand. The country's Sui gas field, which was the world's seventh largest when it went on-stream in 1955, and the Mari field, which has been in operation since 1966, are at fairly advanced stages of depletion. The bulk of fields recently put into production, under development or slated for production, are comparatively small. On the demand side, if gas price reforms put into effect by the caretaker government that took over in November 1996 are continued, the potential for efficiency improvements in gas consumption could prove to be larger than previously assumed. These possibilities aside, there is no lack of gas-producing countries in the vicinity that would like to help Pakistan alleviate its looming gas shortage problems. Both Iran and Qatar, in addition to Turkmenistan, are promoting pipeline projects. It is not clear whether Pakistan will be able to support more than one or two such projects, nor whether the Turkmen one is the most likely to be realised in terms of costs, external support and political feasibility.

Finally, Pakistan unconcealed Islamic offensive support for Indian secessionists and interest in Central Asia, registered in New Delhi as component parts of an anti-Indian Islamic policy. Consequently, India has reacted quickly to expend its own trade and economic ties with Central Asia and to cooperate with both Iran and Russia against any Pakistan influence.

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<sup>28</sup> Lea (1999), "Caspian Oil and Gas", OECD: Paris, p. 108.

## V.4 Azerbaijan

Azerbaijan is a country in the Caucasus region. Located at the crossroads of Eastern Europe and Southwest Asia, it is bounded by the Caspian Sea to the east, Russia to the north, Georgia to the northwest, Armenia to the west, and Iran to the south.

Zbigniew Brzezinski, President Jimmy Carter's national security adviser has described what was and still is at stake: "Azerbaijan's vulnerability has wider regional implications because the country's location makes it a geopolitical pivot. It can be described as the vitally important 'cork' controlling access to the 'bottle' that contains the riches of the Caspian Sea basin and Central Asia. An independent, Turkic-speaking Azerbaijan, with pipelines running from it to the ethnically related and politically supportive Turkey, would prevent Russia from exercising a monopoly on access to the region and would thus also deprive Russia of decisive political leverage over the policies of the new Central Asian states."<sup>29</sup>

Azerbaijan is landlocked geographically and only land connection to Europe is Georgia, a country that is itself in a difficult geopolitical situation. Thus, the Georgian-Turkish path is Azerbaijan's only window to the world.

An independent Azerbaijan with a strong economy and democratic political structure will not suit Russia or its other large neighbour-Iran. Further, Armenia's collaboration with Russia and Iran in the South Caucasus has caused the entire region to become a hostage of the well-known Karabakh conflict. Azerbaijan's access to the world means freeing the South Caucasus and Central Asia from the geopolitical blockade imposed by Russia and its allies.

Azerbaijan's rise as the first great world oil power began in 1848, when the first oil well was drilled on the Absheron Peninsula near Baku. Towards the end of the nineteenth century, Baku became the centre of attention for the world's capital investment. Baku provided the primary oil source for the Russian Empire. Without it, Russian industry would not have been able to function. Baku was providing 97.7 percent of Russian oil in 1890. At that time, Baku's production was 426 million Russian pounds while America's production was about 400 million pounds. 1901,

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<sup>29</sup> Lutz Kleveman, n.3, pp.24-25.

Baku produced approximately half of the world's raw oil.<sup>30</sup> In subsequent years, with the discovery of the so-called "Second Baku", "Third Baku", and various other oil fields throughout the Soviet Union, Azerbaijan's oil production declined after a long period of exploitation. In terms of the percentage of the Azerbaijani contribution to total Soviet oil production, Azerbaijan's share dropped from 71.6 percent of Soviet oil output in 1940 to 39.2 percent, 12 percent, 5.7 percent, and 2.4 percent in 1950, 1960, 1970, and 1980, respectively. In terms of oil output, production declined from 21 million tons between the years 1964 and 1968 to 13 million tons in subsequent years.<sup>31</sup> This shows Azerbaijan oil sectors importance in Russian development.

Azerbaijan is landlocked geographically; hence it has no outlet to open seas. Before its crude oil can reach an oil tanker, it must travel through at least one international border or possibly two. Surrounded by not so friendly countries such as Russia, Iran and Armenia, Azerbaijan has to deal with other factors at the same time. Thus, the pipeline issue is not only an economic problem; it also has a geopolitical nature. As far as the preference of the pipelines was concerned, Elchibey's President of the country administration considered Turkey to be the safest and most reliable country for transporting the Azerbaijani oil to the world market. World media sometimes referred to the new competition over controlling the pipeline and the Caspian oil as the "Cold Oil War". The debates over the route of the pipeline were argued to be a continuation of the nineteenth-century clash of imperial interests known as the "Great Game".<sup>32</sup> Yet a stronger warning came from Russia Foreign Minister Andrei Kozyrev, who cautioned foreign oil companies and their Azerbaijani partner not to ignore Russia's interests. The strongest objection to the Caspian Sea project was pronounced by Valter Shonia, Russian ambassador to Azerbaijan. Shonia's remark underlined the seriousness of this matter for the Russian policymakers: "We have had 200 years of cooperation with Azerbaijan. Any politician denying the reality of Russian power is not going to remain long in his office. Russia is interested in cooperation with the West over Azerbaijan but if there are some attempts to unseat Russia, there will be unpleasant consequences. After its objection to the idea of the Baku-Iran-Nakhchivan-Ceyhan route, the US government proposed an alternative

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<sup>30</sup> Audrey L. Altstadt (1992), "The Azerbaijani Turks: Power and Identity under Russian Rule", Hoover Institution: Stanford, p.22.

<sup>31</sup> Croissant, n.21, p.103.

<sup>32</sup> William E. Odom (1998), "The Caspian Sea Littoral States: The Object of New Great Game ?", *Caspian Crossroads*, 3(3): 4-7.



pipeline route of Baku-Armenia-Turkey. Despite U.S. attempts to have this new route ratified by Azerbaijan, Armenia, and Turkey, the new initiative was turned down by Armenia and Robert Kocharian, then the leader of the Armenian separatist movement in Karabakh. Both Kocharian now the president of Armenia and the Secret Army of Liberation of Armenia threatened that they would not allow a drop of Azerbaijani oil to be transported to the West. The Baku-Supsa route, which will be 920 km long and have a capacity of 5 million tons of oil annual, has been advocated actively by Turkey. In the view of Turkish policymakers, once the Baku-Supsa route was approved, the prospects for extending the pipeline to Ceyhan would grow markedly. Turkey's efforts focus largely on eliminating the need to move oil through the Bosphorus Strait. Because, the Bosphorus Strait is a dangerous waterway (an average of 16.7 major accidents happened there each year in the decade between 1983 and 1993), and because it is near an area of high population (Istanbul has a population of 12 million) the Turkish government has real concerns about the transportation of oil via that route. The United States has supported the Turkish proposal for a Baku-Ceyhan pipeline in hopes that an east-west route would bring the nations of the Caspian region closer to the West. To that end, Washington has actively campaigned for a "Eurasian energy highway" by hosting leaders from Azerbaijan, Georgia, Kazakhstan, and Turkey during the second half of 1997, and sending U.S. Energy Secretary Federico Pena to the region with a proposal for the completion of two pipeline projects (Transcaspian and Baku-Ceyhan). The battle over the issue of the main oil pipeline still continues. Despite the fact that some positive developments have emerged concerning the legal status of the Caspian Sea, no international documents have been produced in this regard. Oil influenced the destiny of Azerbaijan for a long period in the past. In this century, oil was one of the factors that cost Azerbaijan its independence in 1920. Azerbaijan has paid a heavy price for its geographical location and natural resources.

As far as relations with Iran are concerned, Iran shares the same policy as Russia on the legal status of the Caspian and the pipeline route. The Iranian and Russian governments consider the Azerbaijani attempts to exploit Caspian oil and deliver it to the world market with the assistance of western capital to be against their interests. Therefore, the two countries cooperate in their anti-Azerbaijani activities. Iranian hostility towards Azerbaijan's oil policy stems from several factors. The issue of a

divided Azerbaijan. Iranian Azerbaijan, located in the northwestern part of Iran, is approximately twice the size of the Republic of Azerbaijan. The Azerbaijanis in Iran make up a third of the country's population. Iran has at least three times more Azerbaijanis than does the Republic of Azerbaijan. The existence of an independent Azerbaijan Republic influences the national-ethnic movement in Iran immensely. Consequently, this factor, together with the growth of national awareness among the Azerbaijani Turks in Iran, created a new stage for the Azerbaijani national movement in Iran. In recent years, the sentiment towards separating from Iran and uniting with their brothers in the north has increased among the Azerbaijanis living in Iran, and these developments have caused great anxiety there. As a result, Iran felt pressure to adopt a special foreign policy towards the Republic of Azerbaijan.

Turkey has projected itself as an answer to the needs of the Central Asian Republics and Azerbaijan, because it has successfully attained economic transformation to a free market economy a process that has now just began in the Central Asian Republics. Turkey considers itself as the key link in the export of Central Asian oil and gas to Europe. Consequently, it has been active in proposing various pipeline flows, particularly those that extend through its territory. Ankara, however, is opposed to any plan that suggests shipment of oil via Black Sea – a route that would increase tanker traffic in the narrow Bosphorous. The Bulgaria-Greece proposal for the construction of pipeline was immediately condemned by Turkey, as it would have served the interests of Russia. An official at the BOTAS, the state owned Turkish pipeline company has claimed that the project would not be viable economically and if completed would increase ship traffic in the Aegean Sea, where navigation would become more congested. He argued that the more viable pipeline route for export would be one from Baku, Azerbaijan to Ceyhan, Turkey.<sup>33</sup>

## **V.5 Georgia**

Georgia is a country in Eurasia to the east of the Black Sea, most of which is located in the South Caucasus, while a portion of the territory lies in the North Caucasus. A former republic of the Soviet Union, it shares borders with Russia in the north and Turkey, Armenia, and Azerbaijan in the south.

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<sup>33</sup> Sheel K. Asopa (2001), "The Caspian Great Game: Geopolitics of Oil and Natural Gas", *Contemporary Central Asia*, 5(3): 14.

“Georgia has got nothing else to offer to the world, we have to sell our geographical position,” says Alexander Rondeli, a senior diplomat in the Georgian foreign ministry.<sup>34</sup> More than for any other country on the Caspian Sea, the Mediterranean pipeline is a matter of national security for Georgia. Georgia does not border on the Caspian Sea, but it has emerged as one of the key players in the development and transport of Caspian oil. This is especially remarkable since the tiny republic has faced two secessionist rebellions and several bids to topple its government since gaining independence from the Soviet Union in late 1991. Historically, Georgia has benefited from its geographic position on the Black Sea south of the Caucasus Mountains. Its capital, Tiflis (present day Tbilisi) was the commercial centre of the region as far back as the Middle Ages, and following the Russian conquest in the nineteenth century. Tbilisi became the administrative and cultural centre of the Caucasus as well as the hub of regional road and rail networks. Georgia’s possession of two major Black seaports Batumi and Poti- made it of continued importance to the economic development of the region throughout the czarist and Soviet periods.<sup>35</sup> With the break-up of the Soviet Union in 1991, Georgia’s location and port facilities again made it of key strategic importance. For Armenia and Azerbaijan as well as the landlocked Central Asian Republics, Georgia offered the shortest transit route to Europe. Georgia’s importance as a non-Russian transit corridor increased. With the arrival of global oil companies in the region, Georgia was ideally situated to become a major player in the transport of oil from the Caspian for several reasons:

Transporting oil south to the Persian Gulf through Iran was unacceptable due to U.S government restrictions on U.S companies doing business with Iranian companies.

Relying solely on an existing oil pipeline travelling north through Russia would have given Moscow a monopoly on Caspian oil transport.

Building a main export pipeline (MEP) through Turkey to handle large amounts of Caspian oil promised to be a long and expensive trial.

Transporting oil through Georgia presented fewer risks than existing or potential pipelines transiting hotbeds of ethnic tension in Chechnya, Nagorno Karabakh, and eastern Turkey.

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<sup>34</sup> Lutz Cleveman, n.3, p.31

<sup>35</sup> Stephen F. Jones (1995), “Georgia: The Caucasian Context”, *Caspian Crossroads*, 1(2): online.

Georgia's favourable location in the Black Sea was complimented by the fact that pipeline from Baku to Batumi was already in existence, and parts of it could be refurbished for future use at a much lower price than building an entirely new pipeline.

While Georgia's geographic attributes made it a focus of interest by global oil companies, the republic's foreign policy orientation found favour in western capitals. Situated in a geographic buffer zone between three major regional powers – Russia, Turkey, and Iran – Georgia has historically had to strike a careful balance in its external relations. A key element of this has been the republic's tradition of neutrality in regional affairs. Unlike Azerbaijan and Armenia, Georgia attempted to insulate itself from rivalries involving surrounding powers<sup>36</sup>, and with few exceptions, relations with Armenia, Azerbaijan and neighbouring north Caucasian areas have also been warm throughout history. Mainly Georgia is a transit country for commerce between the west and the Republics of Central Asia and the South Caucasus and seeking direct political, economic, and security ties with the United States is the main goal of Georgia.

Georgia's promise as a partner in the transport of Caspian oil was recognized in October 1995, when Azerbaijan and a consortium of mostly western oil companies selected a pipeline from Baku to the Georgian Black Sea port of Supsa to serve as one of two pipelines carrying early Azeri oil to market. Thereafter, the republic was ideally positioned to remain a player in the Caspian oil game because both the building of a southern pipeline through Iran and the granting of a monopoly on Caspian oil transport to Russia continued to be viewed as unlikely prospects for the long term.

Since the break-up of the USSR, Moscow has shown little willingness to witness the emergence of Georgia as a regional transport hub aligned solidly with the west. Indeed, Russia has actively, although covertly manipulated Georgia's domestic vulnerabilities in an effort to retain the republic within its sphere of influence. However, Georgia paid a high price in its turn to Moscow for joining the CIS, Tbilisi was pressured into agreeing to a military cooperation treaty with Russia that allows

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<sup>36</sup> Mikhail Saakashvili (1995), "Growing attraction of the Georgian Alternative", *Caspian Crossroads*, 1(1): online.

Moscow to keep three military bases in Georgia past 1995 while committing Russia to train and equip the Georgian military.<sup>37</sup>

After successfully obtaining Tbilisi's agreement to join the CIS and allow deployment of several thousand Russian troops in Georgia, Russian pressure against the republic heated up again in 1995, as a decision regarding the route of one or more interim Caspian oil pipelines approached. Shevardnadze, the then President of Georgia intent upon receiving oil transit revenues from a Baku-Supsa pipeline, backed the western route despite intense Russian diplomatic pressure that he endorses a northern pipeline to the Russian Black Sea port of Novorossiisk. Soon after refusing to cancel plans for the western pipeline, Shevardnadze's was injured in an assassination attempt when a car bomb detonated next to his vehicle in August 1995. Secondly, the mutiny took place just ten days before a final decision was to be announced on the route of the main Caspian oil pipeline.

The alleged culprit, Shevardnadze's own security chief, fled to Moscow in the wake of the bombing in spite of the Russian prosecutor general's office issuing an order for his arrest.<sup>38</sup> The Russian interior ministry has continually refused to extradite the security chief. Shevardnadze claimed that one possible motive for the attempt on his life was to destabilize Georgia and thwart its chances of transporting Caspian oil. Later, Shevardnadze was certain that the assault was "planned in Moscow" and expressed as such.

Georgia's hope of being focus of a Eurasian transit corridor were given a major boost in 1998, when the European Union's TRACECA (Transport Corridor Europe – Caucasus – Asia) program began to bear fruit. In October, a new four lane highway bridge over the Khrami river was completed with \$2.4 million in European Union financial assistance, providing a modern link between roads connecting Baku to Poti and Batumi.

The watershed event for the TRACECA project in 1998, however, was the holding of a major European Union – sponsored international Conference "on the Restoration of the Historic Silk Route" in Baku on 8 September 1998. delegates included seven hundred delegates from thirty – two countries, including Georgia, Turkey, Ukraine,

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<sup>37</sup> Celestine Bohlen, "Russia and Georgia sign Military Cooperation Treaty", *New York Times*, 4 February, 1994.

<sup>38</sup> Croissant, n.21, p.280.

and the United States, and twelve international Organizations, including the United Nations, the Organization for Security and Co-operation in Europe (OSCE) and the Council of Europe. Since the TRACECA project will not transit Russian territory, the Russian delegation to the conference held the status of an observer and therefore did not sign the Baku Declaration. Nevertheless, the Russian participants tried in vain to argue that transit from Central Asia the Caucasus to Europe via Russia would be more cost effective and reliable than TRACECA.

At the same time, Georgia-Ukraine-Azerbaijan-Moldova (GUAM) informal group – formed in 1997 “on the basis of a shared pro-western orientation, mistrust of Russia, and the desire to profit jointly from the export of...Caspian oil via Georgia and Ukraine” closed ranks to affirm their commitment to the realization of the TRACECA and Baku-Ceyhan pipeline projects and to pledge cooperation against “growing challenges to regional security and stability.”<sup>39</sup> Former Soviet foreign minister under Mikhail Gorbachev, and the president of Georgia, has concentrated all their efforts into making the pipeline a reality.

“The Russians have always been our enemies, and that is what they still are today. For us Georgians, an independent policy invariably is an anti-Russian policy”.<sup>40</sup>

## **V.6 India**

According to the World Bank, exports of Central Asian gas to Pakistan and India are economically feasible. The costs of piping gas approximately 2,500 km from Central Asia to Pakistan are estimated at US \$ 60-78 per thousand cubic metres, depending on the level of exports. The costs of sending gas for approximately 3,500 km to India are put at US\$81-109 per thousand cubic metres, predicated on the same assumptions with respect to volumes. At the same time, the prices of the fuels that would have to be backed out (fuel oil in the case of Pakistan and coal in that of India) are the equivalent of about US\$201 and US\$120, respectively, per thousand cubic metres.

In view of the expected increase in the demand for oil in the various parts of the world, the Caspian Sea and Central Asian region has acquired a great significance. The fastest growing economies of Asia, China and India are expected to raise Asia's

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<sup>39</sup> Ibid.,p.286.

<sup>40</sup> Lutz Klevevan, n.3, p. 32.

dependence on oil import from the present level of 60 percent to 80 percent by 2030. India has joined China in the list of biggest Asian importers of oil, which also includes Japan and South Korea. India, which is now the sixth biggest oil importer in Asia shows an annual 10 percent growth of oil demand. Overall, Asia today accounts for 90 percent of the global growth in oil consumption. It is in Asia that the main energy market is being formed. Considering that Indonesia, formerly a major oil supplier has now turned into a net oil importer a fierce competition for oil in the Asia-Pacific region is unfolding itself. Even the United States will be importing more than 70 percent of its energy requirements from abroad compared to 50 percent at present. Last year China became the world's second (after the US) biggest oil consumer, accounting for almost half of the global consumption growth. India's oil demand will also double in the next 10 years. At present India ranks 6<sup>th</sup> in the world in terms of energy demand. According to a policy paper prepared by the Secretary of Indian Petroleum Ministry, Shri B.K. Chaturvedi, India's existing oil import dependence of 69 percent will further go up in future to about 80-90 percent.<sup>41</sup>

For India, policy of non-alignment was based on economic "self reliance", but in energy spheres the growth of energy resources demand far beyond the capacity of the state to provide these demands based on their own resources. It requires new approaches in foreign policy, where problems of energy security are expected to become the key issue. The core issue of the energy diplomacy of India can be determined as a strategy of reception "guaranteed external energy resources" through strategic alliances with hydrocarbon resources rich newly independent Central Asian states are likely to become perspective source of energy for India's market. According to the strategy of diversification of energy import, India could not be discounted from the evolving geopolitics of Central Asia.

The basic tendency of changes in India's fuel basket is a decrease in share of coal and increase of natural gas. With oil prices, setting new records there is intense interests in new hydrocarbon production centres in Central Asia. It is closely linked with the growth of oil demand in the Asia pacific region, far beyond the capacity of the region to meet its own demand.

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<sup>41</sup> Devendra Kaushik (2006), "The Caspian Cauldron: New Geopolitical Game", Paper presented on February 2006 at Centre for Russian and central Asian Studies, School of International Studies, Jawaharlal Nehru University: New Delhi.

The steadily rising energy demand in new “Asian large economy”- china and India- create the situation of constantly increasing of the completion for energy resources in Central Asia region. Calling in analogy with the 19<sup>th</sup> century “Great Game” (the struggle for influence in Central Asia among three great empires- Britain, Russia and China) has been playing out in Central Asia since the USSR’s collapse. It now involves new actors: international energy companies, the Caspian literal resources owner’s states, distant USA and new active Asian players- India and Pakistan.

India’s economic dependence from energy import is expected to become critical (over 70%).<sup>42</sup> Diversification of energy import has been fundamental to India’s energy security, although it did not succeed in creates import pipeline infrastructure to deliver energy resources from distant producers. India, disturbed its growing energy reliance from the Persian Gulf (65% of its energy imported from the region) in seeking for other major hydrocarbon exporting economies outside the Gulf.

Natural gas has already emerged as a peripheral but perspective fuel in the India’s energy basket its environmentally friendly, lower capital cost and suitable for both industrial and domestic usage. India’s consumption of natural gas has risen than the use of many other fuels. South Asia contains about 1.44 trillion cubic meters or about one per cent of the total gas reserves in the world. India’s proven gas reserves are presently estimated at 923 billion cubic meter or about 0.4% of the total world’s reserves of natural gas.<sup>43</sup> The leading energy experts anticipate that India’s gas demand is far higher than is mentioned by the official government statistics. The gap shown for the year 2006-2007 is 64.02 million cubic metres is an under estimation. (Refer table no. 5.1)

**Table No. 5.1**

**Natural Gas Demand and Supply in India (million cubic meters per day)**

	1996-97	2002-03	2006-07
Demand	52.1	117.8	167.1
Production	49.3	90.54	103.08

<sup>42</sup> International Energy Agency (IEA):<http://www.iea.org>

<sup>43</sup> Planning Commission, Government of India, Tenth Five Year Plan (2002-07) [//http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html](http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html)



GAP	2.8	27.26	64.02
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Table No. 5.1 shows a huge gap between demand and production. India is at present under severe crisis and currently looking around for new supply. Gas could be imported via pipelines from Turkmenistan, Iran, Qatar, and Oman. The pipeline alternatives are fraught with problems. Since India has strong political and security doubts against receiving supplies via Pakistan India and Oman have discussed building an offshore pipeline bypassing Pakistan, but Oman has already declared this project as unfeasible in 1996. The Turkmen alternative, besides having to pass through Pakistan, also suffers from instability problems in another transit country, Afghanistan. And the Iranian alternative would have funding problems due to possible sanctions by the United States. Thus the Central Asia geographical extension towards India can play an important role in the demand of Indian energy sector.

To conclude all Regional Powers are trying to increase their stakes in this energy rich region. While Iran, by using Islamic Card, is trying to dilute U.S.'s efforts towards multiple pipelines. Turkey on the other hand, which has cultural and linguistic affinity with the region, is an important ally of the United States. Pakistan also wants that its territory be used for any future pipeline route. Georgia, a country that is situated in a geographic buffer zone between three major regional powers- Russia, Turkey and Iran is trying to develop new network of oil and gas. India with its current growth rate wants to diversify her crude oil imports and Central Asian Republics could be one of the regions where it can get cheap crude oil through pipeline route. Thus, regional powers like Turkey, Iran, Pakistan, Georgia and India are competitively engaged in this region.

# **Chapter-VI**

## **Conclusion**

The present research addresses some of the important issues of 'geopolitics of oil and natural gas pipeline routes in Central Asia'. The points of research include an analysis of the existing and potential pipeline routes, their contribution to the socio-economic development of Central Asian Republics and the great power interests in the exploitation of the oil and gas reserves of the region.

Since independence in 1991, the Central Asian Republics with its vast untapped hydrocarbon and natural gas reserves has become a potential arena of fierce competition by regional and extra regional players, thus gaining the limelight of politics in the world. The Caspian Sea region possesses about 34 billion barrels of proven oil and 235 billion barrels of possible oil resources and 279 trillion cubic feet of natural gas.

Kazakhstan has the potential to be one of the five top exporters of oil by 2015. Turkmenistan has one of the largest deposits of natural gas estimated at 110 trillion cubic feet and oil production of about 160,000 barrels per day. Uzbekistan is one of the top 10 natural gas producers in the world. The huge hydroelectric energy potential of Kyrgyzstan, Tadjikistan is an added attraction.

As evident from the study and revealed in chapter two of this study, the energy sectors' share of GDP in 2005 has enhanced tremendously. Among the countries of Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan, the rise is substantial to the tune of 22.1, 17.1, 22.7 and 11.8 percent respectively.

Its expected that by 2010, the share would still increase except for Uzbekistan which will reduce by 9.4 %, the expectation by 2020 however is expected to decline for the three countries except for Turkmenistan, which will increase from 25.8 % to 29.3 % by 2020. In addition to this, the fact that the share of Saudi Arabia's energy sector in the GDP has been declining proves more and more dependence of the world on Central Asian Republics. It shows the special significance of Central Asian Republics in the energy sector. Development of oil and gas sector and exports provide a significant revenue return for the region's government as well as stimulates investment in other economic sectors.

Central Asian Republics have gone through two phases of economic development since they achieved their independent status. In the beginning of 1990s, the Central Asian Republics witnessed a period of economic decline. The economy improved and showed signs of positive growth in only some of the Central Asian Republics.

During the Soviet period the route and distribution of oil and gas pipelines in the region was determined by Russia. There were three-pipeline routes through which oil and gas were exported. These were the northern route through Russia. These include,

- One route from Atrou in the north coast of the Caspian Sea to Samara in Russia
- From the northeast of the Caspian Sea to Orsk in Russia
- From Atrou along the north coast of the Caspian Sea to Astrakhan
- From Komsomolskiy to Grozny in Chechnya, this is presently not operational.

The existing oil pipeline network consists of one import line from Russia and three export lines. They are not sufficient to carry the entire load of the Caspian Sea therefore there is a dire need for new exit points.

Oil is often used as a weapon in international conflict. The possession of oil is viewed as a subject of national security. So the reliable supply of energy has become the prime concern for every country. In fact, energy has become synonymous with power in international politics, which has brought the great powers increased interests in oil producing regions.

Some of the great powers who have shown their keen interest in the oil and gas pipeline politics of Central Asia include US, Russia and China. Any attempt to interrupt the US access to oil is a threat to national security and can be a cause of war. Similarly is the case with other great powers like Russia who would not like to dilute its control and monopoly over the Central Asian oil and gas resources. China is yet another aspirant of

new energy source; its oil import dependency is expected to grow significantly in the coming decades. Therefore, China has also strategic interest in Central Asia.

These countries are basically competing among themselves for greater control of Central Asia. This will enable them to control the production and supply of Central Asian energy resources which could play a decisive role in the world politics. While the US supports the policy of multiple pipelines, Russia and Iran are opposed to this idea. US is interested due to its geostrategic policy goals which include prevention of Islamic fundamentalism, and Russian domination of Eurasia.

China's plan is to construct another pipeline to import Central Asian oil to attain the diversification of its energy imports, to avoid steep oil price hike or Gulf war or sanction like that of Iran. Russia being a non external power, views Caspian oil resources not as an end but as a means for achieving its geopolitical goal of keeping the region under Russia's influence. Before 1991, this region was an earner of hard currency for Russia and almost 50 percent of the Russian revenue came from oil and gas pipelines. Therefore, there is a desperate bid on the part of the Russian economy to turn all pipeline routes within its own area. Russia also intends to ensure a dominant role in all oil related transactions of this region promoting interest of Russian companies in all major Caspian projects.

Both the great powers and various other regional powers have their own stake in this region. Countries like Turkey, Iran, Pakistan, Georgia, Azerbaijan and India are competitively engaged in this region. The cultural and linguistic affinity of the Central Asian Republics with Turkey makes it a decisive player in the region. As a NATO ally, Turkey is an important partner of the US providing an important outlet through the Mediterranean Sea. Iran has been promoting Islamic ideas in the region while Pakistan is building its own communication links through Islamic ideology and availing its preferred route of choice for the future.

Georgia has assumed an important role in the region in developing new network of oil and gas pipelines because of its location in a geographic buffer zone between the three

major regional powers - Russia, Turkey and Iran. Like China, India's growth rate is showing high demand for energy resources and the growing uncertainty of the Gulf region has led to increased interests in Central Asian region.

From the study, it is evident that the Central Asian Republics are not only vulnerable to world exploitation, but are also in a position not to be able to usher in a new economic era. Thus before any viable options of the pipeline routes are put forward, the region needs to bear in mind the following:

- The existence of Russian dominance
- The cost effectiveness leading to development of shortest and cheapest routes
- Avoiding falling into the trap of Caspian region politics sponsored by the US
- Linking with Iran on the basis of MoUs and utilizing the already developed port facilities
- Developing multiple pipeline routes in the region as an alternative resort.

Keeping in mind the above observations certain viable options for developing the pipeline routes in Central Asia have been suggested for consideration at the end of this chapter. These routes will bring about not only a reduction in the hostility between regions but can also promote value up-gradation by flowing processed oil instead of crude oil through the pipelines. This will necessarily usher in more industrialization, research and training in order to achieve technological know-how bringing about an overall socio-economic development in the Central Asian Republics. In the present era of trade liberalization and globalization, the region can utilize the open borders by diversifying their economic base and not be dependent solely on the energy resources. Thus, the following viable options for the oil and gas pipeline routes before Central Asia are as follows:

- The southern routes are economically and commercially more significant. They are cheaper to build, pass relatively safer territories, and pose no serious environmental hazard. Significant supporting pipeline and port infrastructure also exists.

- Turkmenistan-Afghanistan-Pakistan-India Oil Pipeline to build a 1 million barrel per day, to carry petroleum to Pakistan and world markets via Afghanistan.
- Qatar-Pakistan-India gas pipeline from Qatar's north field extending through the port of Diba in UAE would bring gas to Karachi through sub-sea route. An alternative option could be picking up Iranian gas along the way to India via Pakistan. This will bring down the costs and open up a larger market.
- Turkmenistan-Afghanistan-Pakistan-India Pipeline. The proposed 48" diameter pipeline would start from Dauletabad gas field in Turkmenistan and pass through Herat, Kandahar, Quetta and Multan before entering India in the north for joining India's Hazira-Bijaipur-Jagdishpur pipeline (HBJ) arterial link.
- Uzbekistan-Turkmenistan-Kazakhstan-Russia-China-India Pipeline. It will pass from Russia to Turkmenistan, Uzbekistan and Kazakhstan to Kanshi (in western China) and then along the military cease-fire line with China in the Siachen Glacier in Kashmir to India. The proposed pipeline is expected to enter India through Ladakh in Kashmir or Himachal Pradesh and then further down to Delhi.

The following option may be considered for the gas pipeline routes.

- Gas pipeline from Turkmenistan to Pakistan via Afghanistan
- Gas pipeline from Turkmenistan to northeastern Iran, where it is to link up with an existing pipeline to power stations in northwestern Iran. This line may be incorporated into the project to export gas to Turkey.

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