M.phil Dissertation

Pipeline Politics and Kazakhstan, 1997-2015

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DECLARATION

I declare that the dissertation entitled **"Pipeline politics and Kazakhstan, 1997-2015"** submitted by me for the award of the degree of **Master of Philosophy** of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree of this university or any other university.

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CERTIFICATE

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

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Preface

The present study has focused on the ongoing game of pipeline politics in Kazakhstan. The study has covered the major energy reserves of Kazakhstan and their transport routes which connect the country to Europe and Asia. The present pipeline politics shows the implications of energy demands and strategies to control over pipeline routes by different powers all over the world. The increasing role of energy pipelines for oil and gas and the rising competition of neighboring powers in the energy sector of Kazakhstan has been analyzed which has further repercussions for the host country(Kazakhstan) and its partners (Russia, China, US, EU) in future.

Content

Chapter: 1

Pipeline Politics: A Theoretical Background

Background

In the present world, energy resources have become a crucial means to judge the potential of any country. Hitherto, all the countries used to count their military and economic power to enhance and show their capabilities in respect of other countries. But today new areas and sectors have also emerged such as natural resources which have turned out to be so prominent in defining the capabilities and weakness of a country. These energy reserves have taken the shape of most potent weapons in contemporary global politics. It marks serious consequences on the international politics and shapes the relationship between states. Due to expanding importance of natural resources, the issue of exporting energy reserves has come into limelight where pipelines play a major role. The choosing of sufficient and reliable pipeline route to export energy safely to the market has become the matter of concern for countries today. Since the geopolitics of energy is increasing rapidly, therefore the issue of selection of a pipeline has become more complex which has, led to pipeline politics today.

After the disintegration of Soviet Union in 1991, all the Central Asian Countries became independent including Kazakhstan and started exploring their own developing paths. Kazakhstan is the top oil producer among CARs and has enough of natural gas, uranium, coal and electricity reserves. The country got huge limelight and importance due to its huge hydrocarbon reserves such as oil. But being world's largest landlocked country it suffers from a problem of exporting its oil and gas to outside markets. Being placed between two giant neighbors i.e. Russia and China, it lacks direct link to sea. As a result it has to get dependent on its neighbors for exporting it to the world market. The issue comes in the selection of pipelines which are mainly used for exporting oil and gas from one region to the other region. It is difficult to select the transport routes since Kazakhstan is approached by many countries which are competing to gain the access of oil and gas in Kazakhstan. Therefore the pipeline politics has been generated in Kazakhstan in the present time with the competing interests of many countries. To know the depth of energy politics related to the pipeline it is important to understand the concept of pipelines in detail.

A Pipeline is a kind of long pipes, typically underground pipes, their pumps and flow control valves include crude oil, natural gas, water, etc. It is used for transportation, especially at distances for example, Figure 1 shows the Trans-Alaska oil pipeline in US is one of the largest pipeline in the world. The energy pipelines are crucial for us to support our daily-to-day life needs by supplying oil, gas, water and sewer. They also help in supplying electricity and also supply water to agriculture. They are mainly used to supply the major natural resources from one region to another, such as oil and natural gas which are the raw materials for global energy consumption. They are usually located in a completely different place, rather than being recycled or processed into our fuel. Pipeline is one of the most reliable, effective, and cost-effective ways to export these natural resources safely. Therefore Pipelines are crucial for transportation of energy resources from one region to another region.

Figure1: Trans-Alaska oil pipeline

Sources: US geological survey 2003

There are two types of pipelines: liquid pipelines and Gas pipelines. On the one hand, the liquid pipelines are the one who supply oil, petrol, propane and fuel via them. While the other hand, the gas pipelines are the one that supply natural gas via them. The lifeline of a pipeline depends on what they transport and where do they transport (Pipeline Safety Coalition, PSC). It is important to study the role of transit pipelines which are crucial and developed more in

numbers today due to the huge energy demand from different parts of the world. The case of "transitpipelines" has grasped more controversies since it includes more countries. It is constructed in more than one country to satisfy the energy thrust of many energy prone regions. As a result it has interference from the host country as well as the transit countries which can turn into problems many times such as Russian interference and strategies to pressure Ukraine through cut off energy supply. Therefore the transit pipelines create huge repercussions for all the countries which are part of the pipeline project which turns the game into pipeline politics where countries trying to control these pipelines and the energy inside them to achieve their national interest.

The pipeline politics has become more intensified today due to the increasing demand of energy among countries. Energy gives leverage to a country over the other country to bargain or pressurize them economically or politically and to make them follow their diktat. In the present world the countries are trying to control the routes of these pipelines to maximize their national interest and securing their energy thirst for future. Due to the emergence of many countries in the energy competition the pipeline politics is getting tangled. In case of Kazakhstan the matter became more delicate and complex since it is a landlocked country. Kazakhstan is known for its huge energy reserves such as oil, gas and uranium. It has the largest amount of oil among all the Central Asian Republics. Therefore pipelines form the crucial part of Kazakhstan's energy sector since it is way more important for the landlocked countries like Kazakhstan which do not have access to sea and are situated between its neighbors. The Map 1 shows the location and size of Kazakhstan which depicts that it is the largest landlocked country in the world. Therefore pipelines are a major instrument for such a country like Kazakhstan to export its energy through the transit pipeline to reach its destination.

Map1: Kazakhstan: the world's biggest landlocked country

Sources: Belt and Road.Hktdc.com (https://goo.gl/images/FsLKdn)

Since pipelines form an important part of Kazakh's energy sector it has also facing the geopolitics of pipelines in the present world. Though Kazakhstan remained influenced by Russia in its initial phase after independence but soon it started adopting the policy of diversification through building partnerships with many countries such as China, US and Iran. Therefore the pipeline politics intensified in Kazakhstan. On the one hand, the countries started competing with each other to control the pipelines and energy reserves of Kazakhstan. On the other hand, Kazakhstan started using its multi vector policy in its energy sector to fulfill its objectives. The situation reinforced during 1997 with the emergence of China in energy sector of Kazakhstan. The year 1997 marked an important event in geopolitics of the region which accelerated the pipeline politics in Kazakhstan and giving set back to Russian influence. The year 1997-2015 shows the dynamics of pipeline politics due to changing priorities of the countries because of their demand and supply of energy resources like oil and gas which forms the crucial part of national interest of every country today.

Review of Literature

Energy Resources in Kazakhstan

Kazakhstan is a major net energy exporter. It has large chunk of oil, natural gas, coal and the leading producer of Uranium. It became the leading producer of Uranium so many times in the world (World Nuclear Association, 2018). According to Hays (2016), Kazakhstan is a

major oil producer. It has estimated 30 billion barrels of oil which is second largest in Eurasia after Russia). It has five major onshore oil fields- Karachaganak, Tengiz, Aktobe, Mangistau and Uzen. Among these five onshore fields, Tengiz and Karachaganak make most of oil and top the oil production. Kazakhstan has 85 trillion cubic feet gas and the natural gas reserves are mainly located in the western Kazakhstan. Beside this, Kazakhstan also has the largest recoverable coal reserves in Central Asia (US information energy agency, 2017).

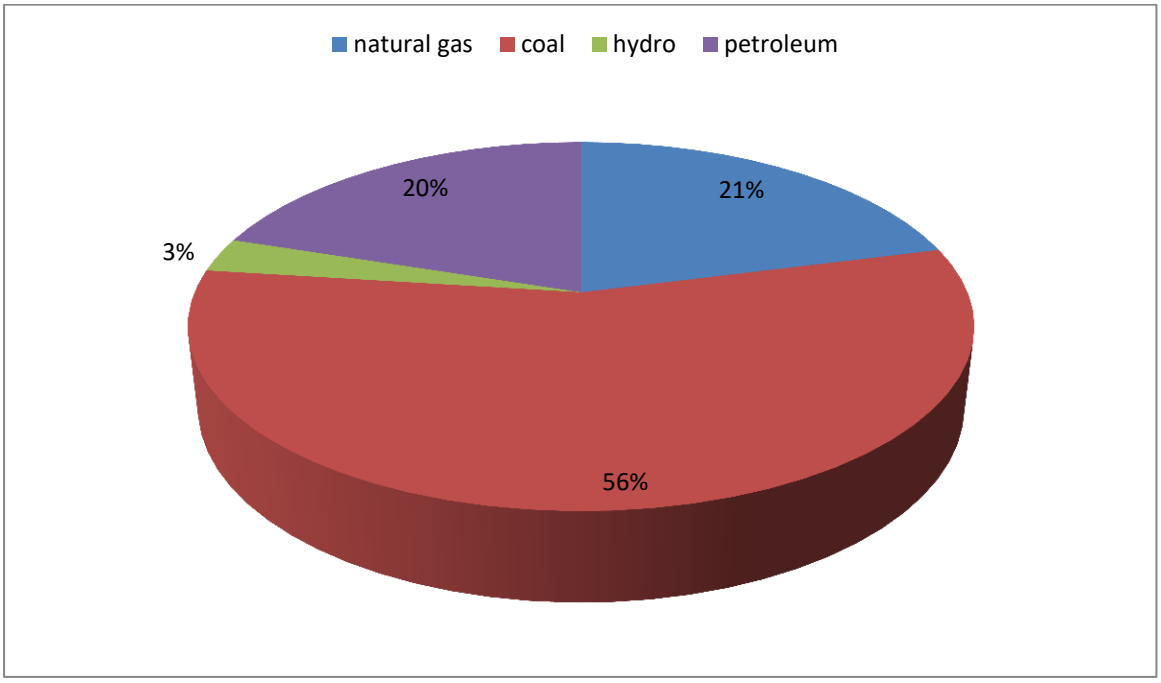
Kazakhstan's energy fields remained mostly unexplored before its independence and very less amount of development was done in energy sector of the country during soviet times. Despite having huge amount of oil, the Kazakh people lived nomadic life for a long time. During soviet rule the country remained a major source for providing raw materials and basic things to the centre. It was only tengiz oil field which was started during Gorbachev period. However after gaining independence in 1991 the country started developing its own independent path towards improving its economic sector. Since after independence the country has faced a lot of economic and political upheavals therefore it took time to revive itself. However, after 1991 the country started developing itself under Nazarbaev who initiated various plans to flourish Kazakh economy. Due to huge energy reserves, Energy sector has started playing a big role in development of its economic sector and its presence in the region (Cohen, 2008).

Kazakhstan started its journey as an independent country in 1991 and the increased demand of oil and gas today has reinforced its importance in its region. It is the leading economy in its region and comes first among CARs in which energy sector plays a big role. Cohen (2008) in his book titled 'Kazakhstan: The Road to Independence, Energy Policy and Birth of Nation' talks about Kazakhstan in the context of an emerging energy supplier in the region. Due to its huge chunk of energy reserves like oil, gas, uranium and coal, it has marked special importance in the development of Eurasian region. It is visible today that Kazakhstan is getting attention from US, China, Russia, Iran, EU and India. All these countries are competing with each other to control the energy reserves of Kazakhstan. However, during soviet time the oil fields of Kazakhstan remained unexplored except Tengiz oil field. However after 1991, the energy sector of Kazakhstan started giving a good competition to energy sector of Russia.

Initially after independence Kazakhstan became financially weak and drained. It took a lot of time to develop itself economically. Since Kazakhstan is an energy rich region, Kazakhstan's

energy sector became the prominent source for its development. The oil sector of Kazakhstan accounts 25 percent of GDP and 65 percent of its total exports and 40 percent of its total budget revenue by 2011 (Cummings, 2012). The Kazak economy has witnessed major economic development since 2000 and the economy's GDP has grown faster from 1.2 percent in 2009to 7.2percent in 2010 and 7.5 percent in 2011(World Bank Report, 2012). Beside Russia, it has the second largest oil potential in the former soviet republics. It has the second largest oil reserves and production after Russia (US information energy agency, 2012). Kazakhstan has the 12th largest deposits of oil in the world and second largest in Eurasia and Europe after Russia (British Petroleum Company, 2012). The pie chart 1 shows the energy consumption by Kazakhstan in 2014. It gives an idea about the contributions made by different energy resources of Kazakhstan such as 56percent by coal, 21percent by natural gas and 20percent by petroleum.

Pie Chart1: Kazakhstan's energy consumption, 2014



Sources: International energy agency, 2017

Henriksen (2013) in his article talks about the role of Kazakhstan's oil and gas in shaping its relations with other countries and how political and economic decisions affected the energy development of the Kazakhstan. He relates the decisions of oil and gas export routes with multi vector foreign policy of Kazakhstan. The major foreign policy partners of Kazakhstan are Russia, China, US which are clearly visible in its energy policy also and are behind

Kazakhstan's major pipelines. Russian route is the major route since large amount of Kazakhstan's oil and gas transit through Russia. He argued that political and economic decisions of the country always influenced the export routes of Kazakhstan. Energy has been used as a major tool in the multi-vector foreign policy of Kazakhstan. It is a way to gain political and economic development in the region for Kazakhstan. Therefore, Energy forms an important part of Kazakhstan foreign policy. It has always been one of the most crucial aspect or determinant of its foreign policy.

Transport Routes and Pipelines

The relevance of energy security is well known today in international politics. Safe and secure supply has become major goal of every country in the present day world. Since Kazakhstan is a landlocked country and is dependent on pipelines for its energy export to reach energy market it has intensified the pipeline politics in this region which is also a reflection of on-going geo-political competition between countries for energy resources. Henrikson (2013) says that the major chunk of Kazakh's oil and gas exported through Russia during 1990s. The policy Kazakhstan adopted was to diversify its routes. The country made huge progress in the regard in 2000s when it started building its energy partnership with other players like China, USA, Iran, EU and India. The country remained dependent more on rail routes during 1990 in Kazakhstan (Kandiyoti, 2008). The railway routes became more costly by 2000 (US information energy agency, 2012). Therefore pipelines became more famous because they are less expensive and can outreach more regions and since 2000 they became the major tool to diversify the routes.

Geography has always been playing a big role in transportation of energy from one region to another. The location of any country affects the export and security of its energy reserves. Fishelson (2007) argued that there are two major barriers with export of energy: Location and International Relations. It is a fact that Kazakhstan does not have a smooth route to export its energy reserves to the Europe without any controversies. Besides this, border issues and geo-politics of the region also play a big role in creating severe problems for it. Since Kazakhstan has always saw the difficulty in exporting its oil to world market these problems mark even a severe blow to the energy sector of Kazakhstan. During 1990s the pipeline routes were limited and mainly connected to Russia. Since Kazakhstan wanted to reduce its dependence on Russia, the policy adopted by Kazakhstan was to develop multiple pipelines to diversify its routes. By developing different pipelines routes Kazakhstan can balance different

interests, secure long term partnerships and gain huge economic and political developments (Henrikson, 2013).

Since Kazakhstan was a part of Soviet Russia it had its initial export links with Russia only. The Atyrau-Samara pipeline was started during soviet times in 1970s connect Kazakhstan's oil production with Russian pipeline system controlled by Transneft (International energy agency, 2010). Before the construction of Caspian pipeline Consortium in 2001 this route remained the favorite export route for Kazakhstan (US information energy agency, 2012). This pipeline symbolizes deep and oil link between Kazakhstan and Russia. The pipeline has been majorly under the grip of Russian pipeline system and it usually plans a higher transit fees to export Kazakh's oil to the world market from this route which troubles Kazakhstan and makes its condition vulnerable. Despite all the flaws this pipeline has been proved very important for Kazakhstan through which it has been exporting huge chunk of oil from a long time.

The entry of China in energy sector of Kazakhstan in 1997 marked an important event in the development of energy complexity in the region. Both the countries agreed to sign an agreement on oil pipeline which will directly connect China with Kazakhstan in 1997 which accelerated their energy relationship. The development of Kazakhstan-China pipeline also symbolises Kazakhstan's strategy to diversify its route and reduce its dependence on Russia (Kandiyoti, 2008). Both Kazakhstan and China have their own motivations and goals to expand this energy partnership. On the one hand, for Kazakhstan this new oil pipeline will help Kazakhstan to diversify its routes and reduce its dependence on Russia. Beside this, Kazakhstan is also trying to build mutual dependency with China. China also provides direct link to Kazakhstan therefore, there is no issue of transit countries which usually create difficulties and bargain during export. On the other hand, China found an alternative for energy in Kazakhstan. China has a huge oil demand which is increasing more rapidly while Kazakhstan having large chunk of oil can easily satisfy China's thirst.

Map2: Major oil Export Routes

Sources: US information energy agency2013

The Map 2 shows the important emerging energy pipelines of Kazakhstan such as BTC (Baku-Tbilisi-Cehyan pipeline) and CPC (Caspian pipeline consortium) which are crucial for the energy sector of Kazakhstan. According to Henriksen he claimed that the emerging Kazakhstan Caspian Transport System (KCTS) and the Kazakh's commitment to BTC are strengthening the multi vector foreign policy of Kazakhstan politically as well as economically. If Kazakhstan manages to fully realize the potential of Kazakhstan Caspian pipeline system it will give Kazakhstan huge gains and a good means of diversification of its export route for oil and gas. It will also help Kazakhstan in bypassing Russia and getting less dependent on it in future (Henriksen, 2013). Beside this, Iran is another energy partner of Kazakhstan which faces plenty of problems in having stable energy partnership with Kazakhstan due to the external influences. The US influence and interference has hampered the energy projects of both the countries which can benefit Kazakhstan since they require less cost and less controversial route for Kazakhstan.

Role of External Actors in Pipeline Politics

Since it is a landlocked country Kazakhstan does not have full access over the utilization of their energy reserves, as it is compelled to ship their oil and gas via pipelines that run through other countries in order to meet the demands of global energy market. It is also a matter of fact that those countries who control the pipelines, they also control the energy contain in it,

which is a major part for development for any country. In fact other important instruments of state power like army equipments, tanks and aircrafts also rely on natural resources like oil. According to Fishelson (2007), he has claimed that there is a war like competition has been started between many countries including Russia, China, US, EU, Iran, India for controlling these pipeline routes and the energy reserves which are exported via them. Earlier the oil from Central Asian states used to export through Russia and it still wants to continue this trend due to huge benefits which it gains via transportation. Russia earns a huge transit fees and much bigger amount of oil and gas which marks its foothold in the country's energy sector and gives it leverage over the region.

China, on the one side, started initiating its energy projects with Kazakhstan. In order to feed its growing economy the countries stared a proposed a route of 3000 km from the Caspian oil fields across Kazakhstan and into China. On the other side, the US while trying to maintain its status as the global sole superpower, but without direct geographic access to the region, would like the energy reserves to reach the open market without it falling under the control of rival powers such as Russia, China, EU or Iran. According to Legvold (2003), he argued that there are a lot of events which has influenced Kazakhstan's relationship with the major powers such as after 9/11 which started war against terror and war against Afghanistan by US and its allies. As a result US became more interested in this region and Kazakhstan was seen from two perspectives i.e. for the geopolitical reasons due to security reasons and having huge amount of natural reserves. Therefore Kazakhstan became an alternative to the Middle Eastern oil for US.

With 2000, Kazakhstan became more active towards its multi vector foreign policy. It started developing its relationships with all the major powers along with Russia. In 1997 china entered the energy sector of Kazakhstan and started building its partnership with Kazakhstan. According to Sultanov and Muzaparova (2003), Kazakhstan became more close to Russia and China after 2000. In case of China with Kazakhstan-China pipeline the relationship started developing and countries became close whereas with the beginning of Putin regime in Russia the focus of Moscow shifted from west to its area of influence. It started focusing more on Central Asian states and become more active in its approach towards Central Asia in general and Kazakhstan in particular. While Kazakhstan also chosen to become more close to Russia and China due to disenchantment with US. This was accelerated due to US constant pressure for political reforms after 'Color Revolutions' in Georgia (2003), Ukraine (2004) and Kyrgyzstan (2005).

Since 1997, China's became an important energy partner of Kazakhstan. China's status as an emerging power has increased its economic presence in Kazakhstan. The eastern route connects Kazakhstan with China. This is related to the emerging oil demand of China to cover its oil deficit and it has to secure its energy supply. Therefore energy has become a crucial factor in China's policy towards Kazakhstan (Gaungcheng, 2003). According to Fishelson (2007), he argued that on October 27, 2005, China made its first move into the Central Asian oil industry when the state sponsored Chinese National Petroleum Company (CNPC) purchased the Canadian-based petro Kazakhstan Inc., owner of Kumkol field, a move that was appreciated in China as a major victory over the privately-held Russian giant company Lukoil. The Kazakhstan-China oil pipeline which was signed a pact in 1997 and the final stage of this pipeline was completed in 2011 which will stretch about 3000km across Kazakhstan to the Caspian fields.

According to Shaffer (2009), he has claimed that Kazakhstan represents an opportunity to China to secure its energy goals and safe supply through eastern route which is totally influenced by China. It provides China direct route and huge amount of oil which China needs the most to satisfy its emerging thirst for energy. Beside this China also started investing money on Kazakhstan. China provided Kazakhstan US$ 13 billion to improve its economic condition which was hampered by Global financial crisis. These events made china more close to Kazakhstan (Henrikson, 2013).With the rising china Kazakhstan partnership Russia also started indulging itself in a strong position to deal with Kazakhstan in energy sector. With the beginning of Putin era from 2000 Russia Kazakhstan relationship took a new shape and became more close to each other. Russia had a distant and more uncertain relationship with Kazakhstan during Yeltsin era where the main focus was building relationship with Europe (Naumkin, 2003). Since 1999 December Kazakhstan became new priority of Russia and it started focusing more on its relationship with Kazakhstan especially in energy sector (Sultanov &Muzaparova, 2003).

Though Russia became more active and alert with 2000 in shaping its relation with Kazakhstan where energy sector has played a big role It is important to note that Russia never left Kazakhstan but it became more active by 2000 (Laruelle, 2010). Putin prioritized Russia-Kazakhstan relations with new energy and through new initiatives where energy sector played a big role (Naumkin, 2003). The oil and gas sector always hit the priority list of Russia's foreign policy towards Kazakhstan. The main interest of Russia is to control the transport routes for energy and lessen its dependence on transit countries (Oldberg, 2011).

The control of transport routes has given both economic gains of revenue and power to put political pressure on Kazakhstan.

Therefore the pipeline politics has been intensified and become more complex since 1997 when more and more actors started getting involved in geopolitical competition for controlling energy resources of Kazakhstan. According to Fishelson (2007), he argued that each country through which a pipeline passes can demand transit fees and can pressurize the host country in every way they want. The supply cuts, high prices for energy export and price hike are some of the prevalent difficulties faced by the countries today. Kazakhstan has not been spared by these controversies related to pipeline routes. However, the energy rich countries like Kazakhstan, Russia and Turkmenistan use these energy reserves as a leverage to bargain with other countries and make them follow their political and economic demands. Therefore the pipeline politics has been played by all the countries involved in the energy sector whether the host country or the transit countries or the country at the receiving end.

The scholars have talked about the role of energy, geopolitics and pipeline politics in central Asia. However, the literature lacks in showing the current pipeline politics and geopolitical competition in Kazakhstan. It lacks focus on energy politics in Kazakhstan as an individual country. Also, the literature does not focus on the role of external actors in Kazakhstan after 1997. It does not focus majorly on the role of external powers in Kazakhstan after 2000. It does not focus on the intense competition between major players like Russia, USA, China, European Union (EU) and Iran over having access to major pipelines routes in Kazakhstan. It is important to study the dynamics of pipeline politics in Kazakhstan and the role of external powers in it. Since this pipeline politics in the region has huge repercussions not only for Kazakhstan but also for its energy partners therefore it is important to study the pipeline politics in Kazakhstan in detail.

Definition, Rationale and Scope

This research is related to pipeline politics in Kazakhstan. The aim of the research is to show the dynamics of pipeline politics and geopolitical competition between major powers to gain full access of energy routes of Kazakhstan. The enormous energy reserves specially oil and gas of Kazakhstan are the big source of attraction for many countries to meet their energy security. The current demand of energy and geopolitical factor makes Kazakhstan as a relevant zone in present world. The major powers like Russia, China are fighting for energy

pipelines (oil and gas) of this region and trying to influence its export routes which make the study of this topic more relevant.

The present study is an endeavor to make and in depth study of the pipeline politics in Kazakhstan with an objective to locate the interests of opportunities and challenges for Kazakhstan. The time taken for this research (1997-2015) has significance as in 1997, China entered the energy sector of Kazakhstan and the energy politics became more complex since then and it started getting attention of all the major players. The energy partnership of Kazakhstan with China, Russia, US, Iran and EU accelerated in 2000s with new pipeline projects and new alternative energy routes to reduce dependence on Russia. The study focused on changing dynamic of energy politics in Kazakhstan during following years which will end with the repercussions of Crimean crisis in 2014 for Kazakhstan and the major involving countries such as Russia.

The rationale of the topic is to study how Kazakhstan deals with other countries and secure benefits for it and how this pipeline politics influences its relations with other countries. Beside this, it also tries to find out the role of external powers in pipeline politics to fulfill their national interest. The scope of study evaluated the pipeline politics of Kazakhstan and also to find out the reason behind its complex nature. The study dealt with various aspects like the role of external actors, various transport routes and geopolitical competition for energy.

Objective of Research

1. To study the role of Kazakhstan in pipeline politics of Central Asia.
2. To study the dynamics of pipeline politics in Kazakhstan.
3. To study the role of major powers in Kazakhstan energy routes.
4. To study the factors that influences the energy routes and pipeline politics in Kazakhstan.

Research Questions

1. How is pipeline politics influencing the foreign policy of Kazakhstan?
2. What are the factors that affect the energy routes of Kazakhstan?

3. What are the implications of pipeline politics for Kazakhstan?
4. What are the major actors and their interests in the pipeline politics of Kazakhstan?

Hypotheses

1. External actor involved in the pipeline politics of Kazakhstan want to create alternative supply route to reduce the dependence on Russian pipeline.

Methodology

The present study is qualitative, analytical and descriptive methods of research. The research focused on detailed analysis of pipeline politics in Kazakhstan. The research completed on the basis of primary sources, secondary sources of data and information which includes books, journals, seminar papers, research papers, news-papers, articles, government documents and publications by different international organizations involved in the study of pipeline politics of Kazakhstan. The present study is historical and contemporary in nature. The numerical data was analyzed on trade and amount of energy reserves with the help of both quantitative and cartographic methods. The main focus was on the dynamics of pipeline politics in Kazakhstan and its future implications for the country. The role of major influential countries was also be analyzed which are conflicting for Kazakhstan's energy exports such as Russia, China and West. The study has both independent and dependent variables. The independent variables are national interest, energy reserve, geographical location, politics and external actor which will affect the dependent variables like pipeline politics, energy and selection of transport routes of Kazakhstan.

Chapters

Chapter: 1

Introduction

This chapter includes the introduction about pipeline politics in Kazakhstan and the relationship between energy and geopolitics of a region. It also includes the views of international analysts on energy politics in Kazakhstan which included major powers like Russia and China. It also includes the significance of pipeline politics in present world.

Chapter: 2

Energy Profile in Kazakhstan

This chapter include the data of energy reserves of Kazakhstan specially its oil and gas reserves and current important oil fields in Kazakhstan. It also focuses on geopolitical location of Kazakhstan. Also the situation of Kazakhstan under Soviet Russia and the early independent phase of Kazakhstan including the challenges it had faced in its early period of independence.

Chapter: 3

Transportation Routes and Pipeline Politics

This chapter includes the major transport routes of Kazakhstan to export its oil and gas to world market. It also show the emerging complexity of energy transport routes (pipelines) of Kazakhstan and the pipeline politics related to them which includes many countries Russia, US, China, Iran, EU and India. It also includes the emerging oil and gas projects in Kazakhstan.

Chapter: 4

Role of Major Powers in Pipeline Politics

This Chapter includes the role played by major countries in energy politics and controlling and manipulating the energy routes of Kazakhstan. It includes the strategies and ways used by the different countries to gain access to energy routes of Kazakhstan. This chapter also analyzes the interest of Kazakhstan in this pipeline politics and how it is utilizing its multi vector foreign policy in dealing with other countries in this game of energy politics.

Chapter: 5

Conclusion

This chapter act as a conclusion of the dissertation and talk about implications and future complexity of pipeline politics of Kazakhstan and how it is affecting Kazakhstan's relations with Russia, China and other significant partners in present and the future.

Chapter: 2

Energy Profile in Kazakhstan

The growing demand for energy in Europe and Asia has led regional and international forces to concentrate on energy resources in Central Asia such as Kazakhstan and Turkmenistan. The sudden downfall of erstwhile Soviet Union led to an intense conflict over control of vast energy reserves particularly of oil and gas in Central Asia. However, these countries like Kazakhstan and other Post soviet states became the cynosure of all eyes due to their vast energy reserves. From the past two decades new players have been emerged in this region to gain control over Central Asian energy resources. The present game is not over political or territorial influence, but over the vast raw material deposits especially those situated by the Caspian's sea (Gupta, 2016). Being the largest producer in Caspian Sea has reinforced the geopolitical importance of Kazakhstan.

Kazakhstan gained its freedom after the disintegration of Soviet Union in 1991. It's the world's largest landlocked country having geographical proximity to two of the major powers Russia and China. Kazakhstan has abundant amount of energy resources such as oil and gas which can be seen in huge pipeline expansion (10,175 Km) in Kazakhstan (Krug, 2001). Kazakhstan is the most successful economy in its region (after Russia) where energy sector contributes a big part in achieving that position for the country. With enormous amount of oil, Natural gas, Coal and Uranium Kazakhstan has a big importance in its region and has created an example of economic development in entire Eurasia. It is visible today that Kazakhstan is getting the attention from U.S., China, Russia, Iran and India. All these countries are competing with each other to control the energy reserves of Kazakhstan. During Soviet time the oil fields of Kazakhstan remained unexplored except Tengiz oil field. However, after 1991 the energy sector of Kazakhstan giving a good competition to energy sector of Russia (Cohen, 2008).

From Nomadic Life to World Class Energy Exporter

Unlike the known oil deposits of Azerbaijan, the large hydrocarbon deposits of Caspian basin mainly Kazakhstan which remained unexplored during Soviet era except Tengiz oil field where work began in 1980s with the leadership of Michael Gorbachev. Since 1911

Kazakhstan was known for its oil production but it didn't increase in a larger scale during the phase of Soviet Russia (US information energy agency, 2017). The Kazakhs used to live the life of nomads in eighteenth and nineteenth centuries and oil deposits remained unknown in Kazakh steppe. During Soviet time, Kazakhstan was a supplier of raw material and semi-finished goods in military and nuclear sector to USSR. However, with time the Kazakh elites become developed with the western influence and education. As a result, the process of nationalism and self-identification began which became stronger with the collapse of Soviet Union (Cohen, 2008).The freedom was seen with pride, prestige and honor in Kazakhstan and it started working on its own for its development on independent path. Kazakhstan started its nation building project under the leadership of NursultanNazarbayev who become the first president of Kazakhstan in 1989. During soviet period he acted as the prime minister of the country and soon after its independence he became the president of the country and took all the responsibilities to develop Kazakhstan. The nation building process included exploring natural resources, attract foreign investment and develop markets for economic development. Since it's a landlocked country during its initial phase pipelines exported oil and gas through Russia. The country faced severe challenges but with the policies of coherent economic development, strong leadership under Nazarbaev and adopting market reforms and openness to west it managed to develop its energy sector rapidly which led to the exploration of its oil fields Tengiz and Kashagan. Today Kazakhstan is a net energy exporter and has gained an important place in energy sector in its region.

Energy Profile

Being a major oil producer since 1911, Kazakhstan has enormous amount of oil and is known to be a major oil producer. It has oil, natural gas, coal and many times become the leading producer of Uranium in the world. It has estimated 30 billion barrels of oil (second largest in Eurasia after Russia). The Tengiz field, Karachaganak filed, Mangistau field, Aktobe field and Uzen field are the five major on shore oil fields of Kazakhstan. The Tengiz and Karachaganak dominate the oil production among all the major oil fields in Kazakhstan. It has 85 trillion cubic feet gas. The natural gas reserves are mainly located in western Kazakhstan. It has the largest recoverable coal reserves in Central Asia (US information energy agency, 2017). Kazakhstan has been dependent on its energy sector for development which can be seen in various aspects. The oil sector of Kazakhstan accounts 25 percent of GDP and 65 percent of its total exports and 40percent of its total budget revenue by 2011

(Cummings, 2012). The economy of Kazakhstan saw drastic economic development since 2000 and the GDP has grown faster from 1.2percentin 2009 to 7.2 percent in 2010 and 7.5 percent in 2011 (World Bank Report, 2012). Kazakhstan has the second largest oil potential in former soviet republics. It has large amount of oil deposits which is twelfth largest in the world and Second most highest in Europe (where Russia comes first) (British Petroleum Company, 2012).

Oil and other liquids

Kazakhstan has approximately 30 billion barrels of oil reserves which is second after Russia and comes 12th in the world, after United States (Hays 2016).The two giant onshore fields have dominated the production of oil in Kazakhstan: Tengiz and Karachaganak. These two major onshore oil fields together produced about half of Kazakhstan's total production of petroleum liquids in 2016 while the offshore oil fields such as Kashagan and Kurmangazy, lies in Caspian Sea's region of Kazakhstan, has 14 billion barrels of oil reserves in which Kashagan accounts 9 billion barrels. The production in the offshore Kashagan field of Kazakhstan started in October 2016 (US information energy agency, 2017). The Kashagan field will soon join the Tengiz and Karachaganak field and became the three largest production fields in Kazakhstan. In order to utilize the oil reserves properly it is important to analyze the role of sector organizations (energy industries) which play crucial part in production and sales of energy reserves in Kazakhstan mainly oil reserves.

Sector Organization

The sector organizations are very important part of energy sector. They include the industries which help in production and selling of oil resources in Kazakhstan. The manufacturing, oil extraction, production and refinery related industries form the important part of sector organization in Kazakhstan. After independence Kazakhstan started its own path to develop its oil and gas sector due to which it started a national oil and gas company named KazMunaiGas(KMG) which was started in 2002 in order to depict the objectives of Kazakh oil and gas industry.

Since the Kazakh energy sector has always been controlled by the state similarly the companies related to the energy have also been owned by the state. The KazMunaiGaz has contributing immensely in the improvement of oil and gas sector of Kazakhstan and in the development of industries related to oil and gas sector. The state government plays a major

part and owns most of the shares and joint ventures of KMG. In fact in 2014 the former president of Kazakhstan Nursultan Nazaerbayev proclaimed that there is a need for more effective government in the field of energy sector (Tengri News 2014). There are a number of subsidiaries of KMG which includes KMG exploration and production, KazTransGas, KazMuaniTeniz and KazTransoil. KMG has huge interests in the oil fields of Kazakhstan such as in Tengiz (20 percent), Kashagan (15 percent) in Kashagan (15 percent) (US information energy agency, 2017).

In case of oil mining, the Underground mining laws of the Republic of Kazakhstan and on the underground law arrange for production rights and underground changed in 2005 to allow countries to use the issue of the right to sell the oil facilities, allowing the acquisition of the property in a safe KMG of the largest projects in the country. The law was changed again in 2007, so that the state can retroactively modify the current contracts related to oil if they can threat the security of the nation. The contracts related to joint ventures have always been preferred in the oil sector of Kazakhstan. The export duties were also announced by the Kazakh government in 2014 since the oil prices were declined (U.S. Department of State. 2014).

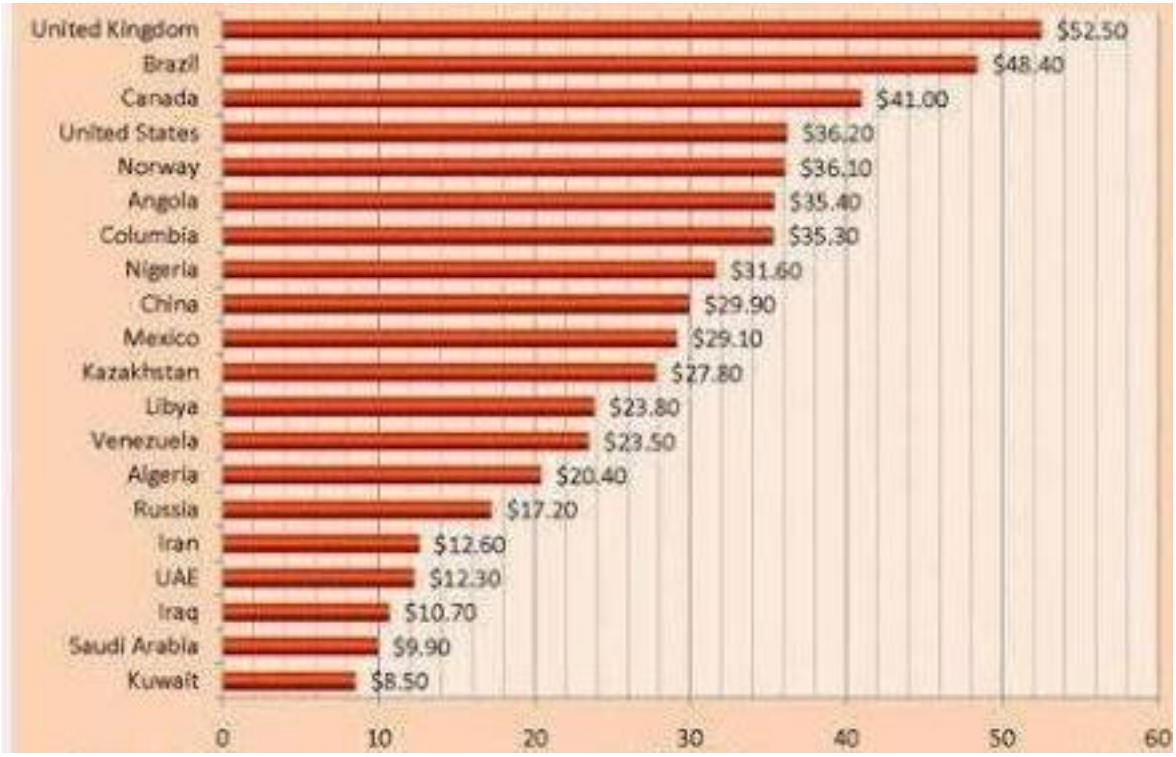
Production

Kazakhstan is a well-known oil producer since 1911 but its production didn't increase much till 1970s and 80s. During 1970s Kazakhstan made many important discoveries in the Karachaganak and Tengiz and the other new store. However, before 1991 due to some technical problems of deep high pressure vessel resulted into the development of hurdles in the production of oil production. As international oil companies have begun to participate in the oil sector of Kazakhstan, as these minefields is possible technically and commercially, the deposits form the basis of the country's oil production. Being the second largest oil producer in the former Soviet Union, It is future as oil liquid producers rely on the development and expansion of three major oil fields: Tengiz, Karachaganak and Kashagan. These projects are accounted no less than the 60percentof the total oil production (US information energy agency, 2017).

The Tengiz partners in Kazakhstan made decision for final investment in future project growths in July 2016. Tengiz is expected to raise LPG production to 260,000 barrels /day by 2022 (US information energy agency, 2017). The Kara-Ganganak oil field expansion project was also proposed, but at the later stage of the plan. The production in Kashagan oil field

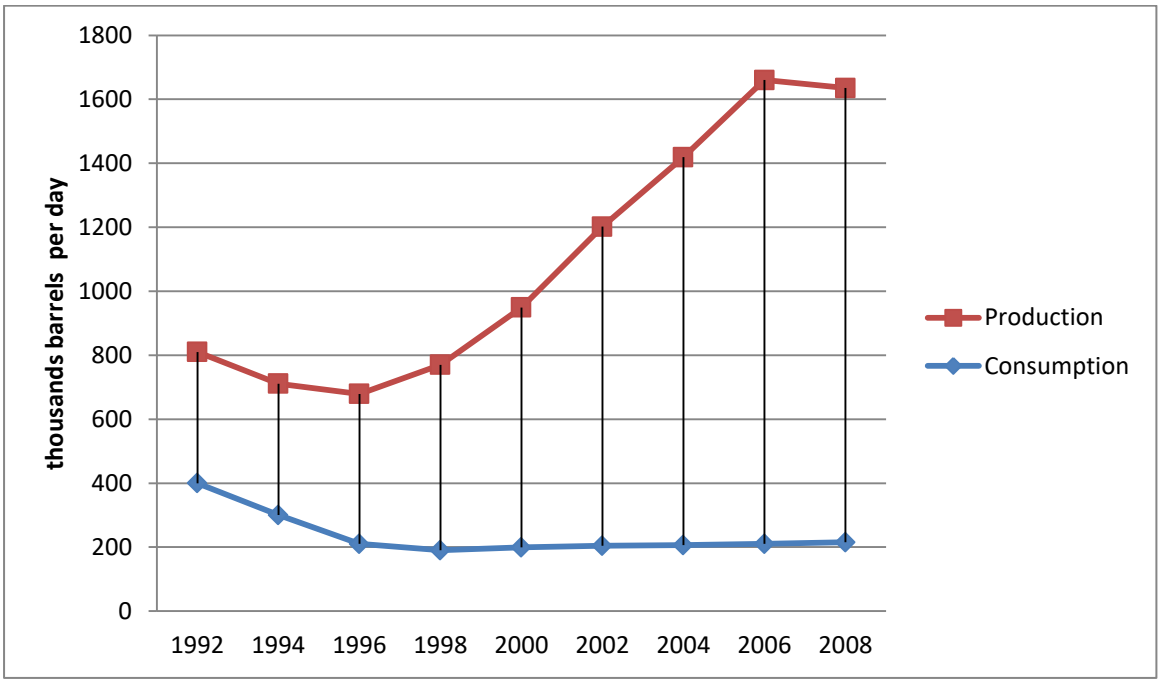
started on September 11, 2013. In October 2013, a few weeks after the grazing production, it stopped due to leakage in gas pipeline which used to transport gas from field to shore. In 2016 and January 2017, Kashagan resumed production and the field production didn't exceed 100000 b / fluid. However there are some serious problems with Kashagan oil field. There are some unfavorable conditions and difficulties which lead to significant loss. The Kashagan reservoir is located at a depth of 13,000 feet above sea level and has a very high pressure (770 pounds). It contains high levels of hydrogen sulphide which is very toxic, destructive and high and can cause pipeline leak. In addition climatic conditions are also not suitable (US information energy agency, 2017).

Map3: Kazakhstan's position on global scale in oil production



Sources: The oilfield experts, 2017

Table1: Kazakhstan's oil production and Consumption, 1992-2008



Sources: US information energy agency, 2017

Table2: the important Oil and Gas fields and companies in Kazakhstan

Name of the field	**Major Companies**	**Staring Year**	**Production of Oil**	**Production of Gas**
Tengiz	Chevron, ExxonMobil, KazMunaiGas, LukArco(Lukoil and BP)	1991	500000 thousand bbl/d liquid production in 2016.	274Bcf natural gas production in 2016.
Karachaganak	BG, Chevron, Eni, Lukoil, KazMunaiGas	1984	206,000 thousand b/d production in 2016.	300 Bcf natural gas production in 2016
Kashagan	Eni, KazMunaiGas, China National Petroleum Corporation,	2016	370000 thousand b/d production in 2016.	Over 100 Bcf natural gas production in 2016.

	Shell, Total, Inpex			

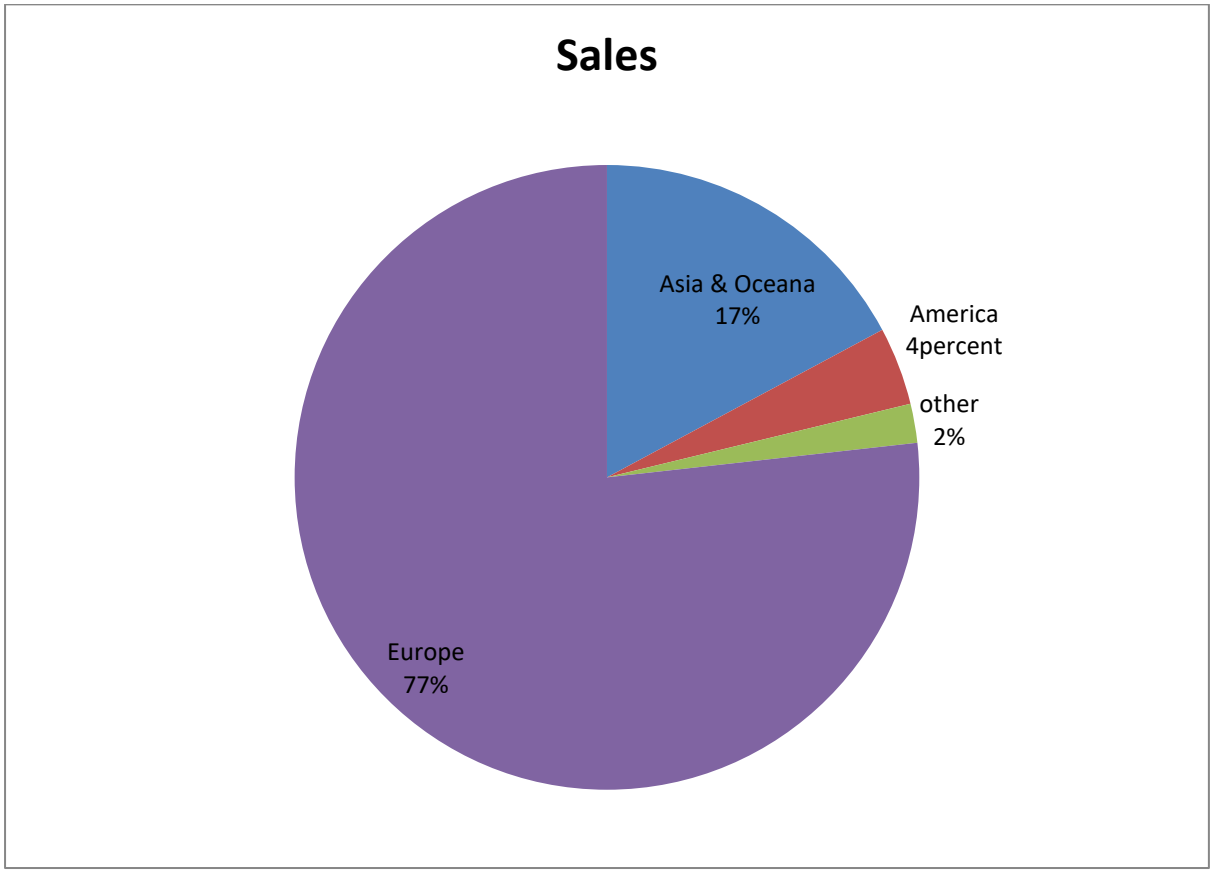
Source: US International energy agency, 2017

Since Kazakhstan has enormous amount of oil reserves the country also gets recognised as an important producer of oil globally and secured 11th position among largest oil producers as mentioned in the Map 3. Beside this the oil production has been constantly increased in the country which is visible in the Table 1 where Kazakhstan's energy production has just increased from 1992 to 2008 and reached 1600 thousand barrels per day. Also the table 2 shows the important oil and gas fields and companies in Kazakhstan such as Tengiz, Karachaganak and Kashagan are the most crucial oil and gas fields of Kazakhstan.

Oil Exports

Kazakhstan is a well-known supplier of light, sweet Crude oil. Kazakhstan supplied nearly 1.3 million barrels of oil which is exported exclusively from Black sea via Russia through pipelines (Global Trade tracker, 2017). Most of the Kazakhstan's oil exports go to the markets of the Caspian Sea in Europe. The remaining 5percent of Kazakhstan's oil exports to the east are sent to China. A significant part of the export of Kazakhstan's export to Italy and the Netherlands, which makes it difficult to determine where oil ends up because Kazakhstan reports these amounts as transit in the country of delivery. According to Custom Authorities of the Republic of Kazakhstan, the Ministry of Finance, the largest share of exports to Italy in 2011 was about 346 thousand barrels per day of which 60,000 BPD of crude oil. According to EuroStat, other important importers of oil fuels in Kazakhstan were China, France and the Netherlands. In 2011, the US transported about 14,000 barrels a day, or about one percent of Kazakh's exports (International energy agency, 2017).The pie chart 2 presents the crude oil exports of Kazakhstan in 2016 where 77percent of oil is exported to Europe, 17percent to Asia & ocean and 4 percent to America.

Pie Chart2: Kazakhstan's crude oil exports, 2016



Source: US information energy agency 2017

The Current pipeline systems, most of them, designed as part of the Soviet system with the aim of maximizing oil transport to Russia. Since the collapse of Soviet Union, Kazakhstan has relied exclusively on Russian exports allowing Russia completely control Kazakhstan's exports. On the other hand, over time Kazakhstan has been able to reduce its reliance on Russian infrastructure through the use of Caspian Sea vessels and railroads and pipeline construction to China. However, most exports remained with Russian pipelines. In the future, Kazakhstan's exports will be expanded because of new emerging areas such as Kashagan come into scene. However, rapid growth in oil extraction and exports requires significant export potential.

Oil pipelines: Kazakhstan has a state centric pipeline system which is managed by about 5,300 Kilometres of state-run KazTransOil, a subsidiary of KazMunaiGas. The increasing opportunities, especially the export opportunities, may undermine Kazakhstan's ability to rely on Russia and increase its output. Following are the important pipelines and export routes for

Kazakhstan to make way for its energy reserves to world market and that is also shown in Map 4 which represents the oil pipelines of Kazakhstan.

-CaspianPipelineConsortium: *It* started in 2001 and connects Tengiz oil field to the Russian Black Sea port of Novorossiysk.

-KazakhstanChinapipeline: It connects Atyrau port in northwest Kazakhstan to Alashankou in China's northwest Xinjiang region.

-Uzen-Atyrau-Samarapipeline:It is a major pipeline for Russia's Transneft system from Atyrau to Samara and Connects Kazakhstan to Black Sea.

-Baku-Tbilisi-Ceyhanpipeline:it connects Kazakhstan to Europe. Kazakhstan exports its oil to Baku from Caspian region which first started in 2008.

Map4: Oil Pipelines of Kazakhstan

Source: EIA-Kazakhstan Oil Market Overview, 2017

Future and Proposed Developments

The development of future projects such as Kashagan will require a substantial expansion of Kazakhstan's export capacity. Also, Kazakhstan wants to promote Kazakhstan Caspian Sea Transport system (KCTS). The project will build a pipeline of 830 Km west of Eskene port in western Kazakhstan, and a new 760,000 barrel oil terminal in the Caspian near Aktau. The project also includes Baku, Azerbaijan, a new port facility and transfer station to Baku, where

crude oil is supposed to extract the pipeline from BTC (Baku-Tbilisi-Ceyhan pipeline) to Turkey. KCTS is still just a suggestion and will be completed by 2023, taking into account the size of the project. The other options include the expansion of shipping opportunities in China. In August 2012, the officials from CNPC (China National Petroleum Corporation) announced that the company has considered the possibility of building a pipeline from the Caspian Sea. The other proposals include the Trans-Caspian Pipeline which will link Kazakhstan and Turkmenistan to the west. This pipeline project disagreed by Russia since this export route going to bypass Russia. Another project is Kazakhstan-Turkmenistan-Iran pipeline which is halted due to strained relations between Iran and Kazakhstan (EIA, 2017).

Refineries*:* According to OCJ, the three major crude oil refineries of Kazakhstan to increase oil per barrel of 340,000 per day on January 1, 2017 (Oil and Gas Journal, 2016).The three major crude oil refineries are Pavlodar, Atyrau and Shymkent. The Pavlodar refinery is located in the central part of Kazakhstan and oil supplied by the pipeline in western Siberia, as Russians have made a geographic program to serve the refinery companies. The representatives of Atyrau use domestic crude oil from western Kazakhstan and Shymkent uses the oil from Kumkol and from oil well in central Kazakhstan. Some small producers in Atyrau also produce large quantities of oil in the area to pave the ways for roads.

The three major refineries in Kazakhstan account for about 70 percent of Kazakh's gas and diesel demand, most of the remaining problems come from Russian imports. The modernization project was started in 2017 in three refineries and is expected to be completed in late 2017 and early 2018. The update allows three plants to produce less heavy products and better fuel. With these updates Kazakhstan is looking for accomplishing the total demand for gasoline and diesel by 2019(US information energy agency, 2017).

Natural Gas

Kazakhstan is known for its enormous amount of oil and has gained much attention from many countries from the world. Besides oil, Kazakhstan's liquid fields also contain significant volume of natural gas, much of which is returned to oil wells to improve oil recovery rates. The proven gas reserves of Kazakhstan is approximately 85 trillion cubic feet on 1st January 2017, with most of the natural gas reserves in Kazakhstan being found in its oil or condensate deposits (Oil and Gas Journal 2016). The two largest petroleum fields, Tengiz, and Karachaganak are also among the two largest natural gas deposits. The other gas fields

include Imashevskoye and Kashagan. All of these natural gas reserves located in western part of the country and amount 80percent of total gas reserves in Kazakhstan.

Production

The annual market production of natural gas increased from 314 billion cubic feet in 2000 to 388 billion cubic feet in 2009, while in 2010 it slightly decreased. While in 2010 the total gas production was 1.3 trillion. However, 75 percent of the produced gas was directed to oil fields to increase production. The two largest deposits of natural gas are also the largest oil fields i.e. Kazakhstan's Karachaganak oil and gas field accounts for about half of Kazakhstan's total natural gas production, totaling about 650 billion cubic meters. The British Oil and Gas magazine reported that the production volume increased to 784 billion cubic meters in 2011. Wood Mackenzie estimates that the dry gas production of the Karachaganak field will reach 775 billion cubic meters in 2015 and 1.3 tons trillion cubic feet in 2020 (US information energy agency, 2017).

According to chevron, Tengiz oil and gas production is about 300 billion cubic meters. Among them 114 was dry gas production. According to Wood Mackenzie, Tengiz will continue to play an important role in gas production in Kazakhstan which is expected to reach 623 billion cubic meters in 2015. The gas produced in Kazakhstan came from other small deposits. The development of Kashagan and Imashevskoye is important for energy security as gas production from these areas is expected to increase household gas supply and provide additional volumes for better oil production. It is expected that by 2020, 1.1 trillion cubic feet will be available in these two deposits in dry gas (Chevron, 2016).

Gas Consumption, Imports and Exports

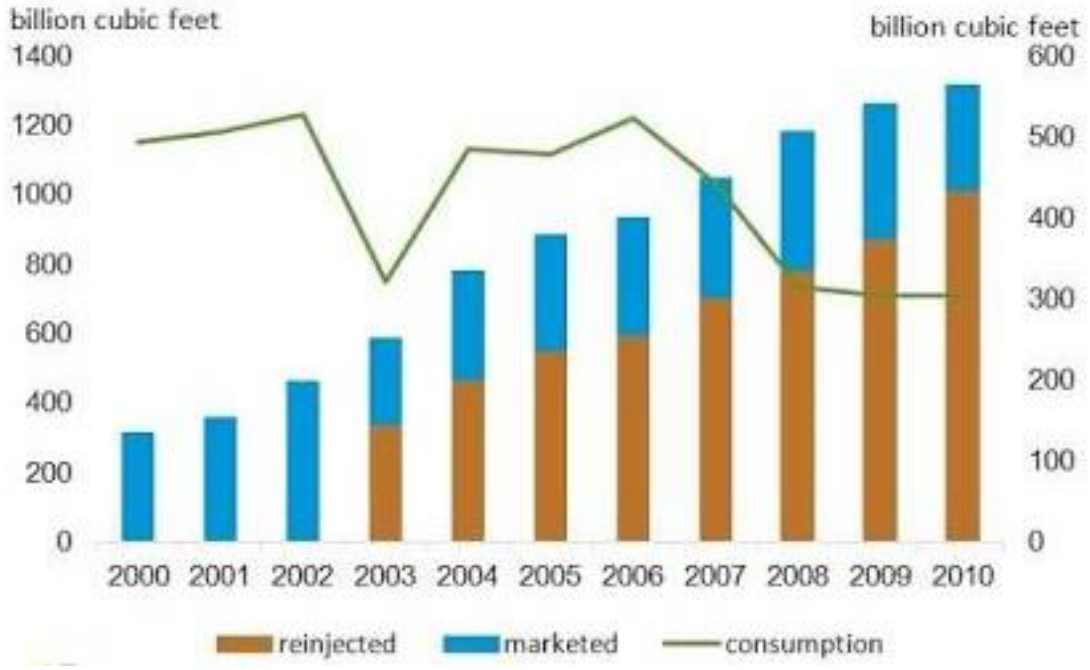
Kazakhstan has two large gas pipelines. The pipeline having capacity of 2.2 trillion cubic feet located in western edge of Kazakhstan is the gateway to Russia and west i.e. *CentralAsiaCentreGas pipeline* which is controlled by Gazprom (International energy agency, 2017). The Bar graph1 show the natural gas production, consumption and volume in Kazakhstan during 2000-2010 which has increased with time. While the *Turkmenistan-China* pipeline touches the southern edge of the country and connects it to Southern China. Both are part of the Caspian export infrastructure and are mainly carry natural gas exports from Turkmenistan and also carrying exports from Kazakhstan and Uzbekistan. The CAC pipeline also fulfills the local demand of West Kazakhstan, including Northwest Kazakhstan, where

most of the country's products are located. The *Bukhara-Tashkent-Bishkek-Almaty pipeline* is the third major pipeline with the capacity of 160 billion cubic feet fulfills the demands and requirements of the Southern Kazakhstan.

Kazakhstan's central aim with the gas sector is the development of a national natural gas network linking all the regions of the country, in particular, the production and consumption sectors. The development of the internal system will effectively remove the need for import from Uzbekistan. At present, five of the 14 regions of Kazakhstan are not connected with the pipeline network. While the long-term objective of connecting these regions is the presence of alternative energy source and LGP and the coal values is currently inexpedient (US information energy agency, 2017).

Kazakhstan's natural gas production is concentrated in the northwest on residential areas in the southern, northern, central and eastern parts of the country. By 2016, consumers in the southern Kazakhstan used to buy gas from Turkmenistan and Uzbekistan. In 2015, the state-owned gas pipeline operator Gazprom completed the final merger of the *Beinu-Bozoi-Shymkent gas pipeline* (International energy agency, 2017). This pipeline enabled Kazakhstan to deliver gas to such communities previously had no access to gas. It also combined natural gas fields and infrastructure in the north-west of the country with settlements in the southern part of the country to replace the imported natural gas in these markets with domestically produced natural gas. The completion of this connection is also linked to the shipment of Kazakhstan's natural gas pipeline to china, allowing the export of products to china in the north western part of Kazakhstan. Kazakhstan also discussed the possibility of using this infrastructure to deliver Russian gas to China.

BarGraph1: Kazakhstan's natural gas marketed production, consumption and volumes, 2000-2010



Source: US information energy agency, 2017

It is even more uncertain to pan to gasify the rest of the country and connect it to the existing infrastructure in the west and south. The long distances and relatively low population density in the north, central and east make the economy a challenge for potential gas pipeline projects in these areas. Kazakhstan imported 5,000 tons of liquefied natural gas (about 200 million cubic meters of natural gas) from Russia on its way to Astana, the capital of Kazakhstan and the other cities in the north of the country in 2017. Coal fuel in northern Kazakhstan and in central part of the country may also be the source of natural gas resources in the region that are far from being produced and so are gas infrastructure. Also Kazakhstan is searching the potential for producing methane from coal and coal beds. The Map 5 shows the crucial gas pipelines of Kazakhstan which export the Kazakh's gas to other parts of the world.

Map5: Gas Pipelines of Kazakhstan

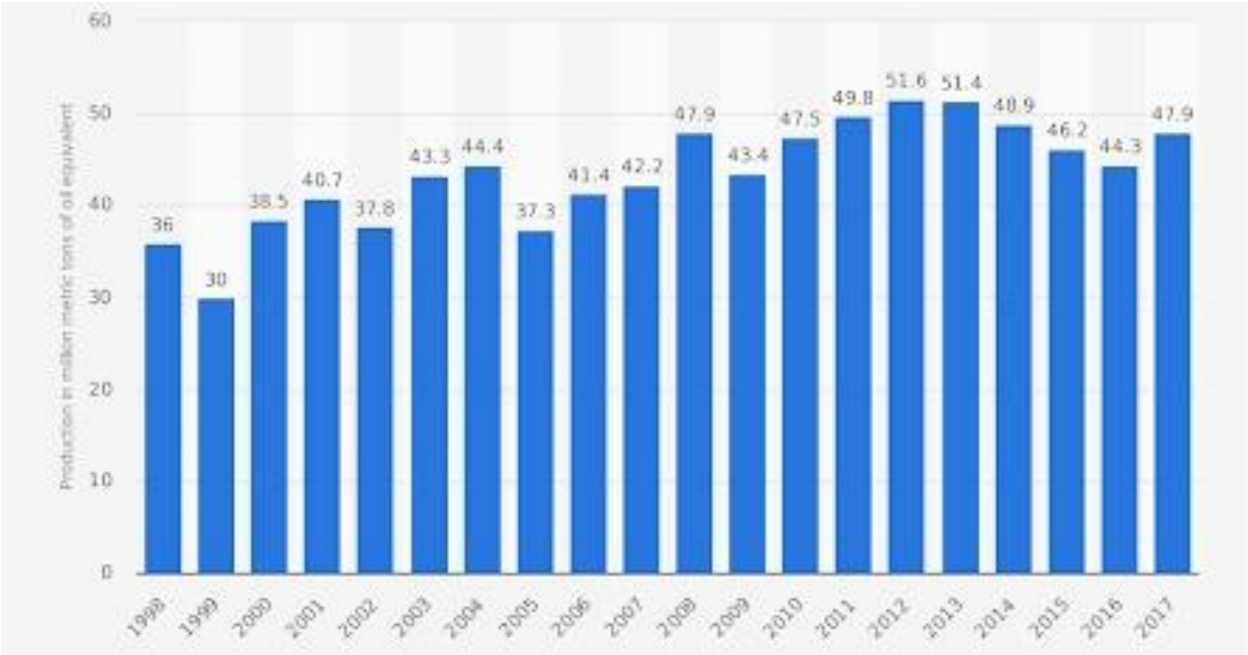
Source: US Information energy agency, 2017

COAL

Kazakhstan has sufficient amount of Coal reserves which estimated 56percent of total energy consumption in Kazakhstan in 2014. Kazakhstan's coal resources, coal mining and coal exports reached the top 10 worldwide. In 2014, the total recoverable reserves was20 million tones. In terms of coal consumption, it is also one of the fifteen countries in the world. Although Kazakhstan is one of the largest coal-producing countries, Kazakhstan contributes relatively little to global coal. The four largest coal reserves in the world in consumption, production and export accounted for 65 percent to 75 percent of the total, while Kazakhstan accounted for 1 percent-4 percent (US information energy agency, 2017). In bar graph 2 the coal production of Kazakhstan has increased from 1998 to 2017 which has increased with time and reached 47.9percent in 2017.

Kazakhstan's coal (about a quarter) exports mainly in Russia. Almost all coal mines and exports to Kazakhstan consist of coal that is suitable for incineration in power plants or other steam and heat applications. Kazakhstan also produces metallurgical coal that is consumed internally. Kazakhstan is rich in minerals and these minerals and coal are concentrated in north and in the center of the country. Coal is an important source of energy for the mining and metallurgical industry as well as for Kazakhstan's energy sector.

Bar Graph 2: Coal production in Kazakhstan from 1998 to 2017 (in million metric tons of oil equivalent)



Sources: Britishpetroleumstatistic2018

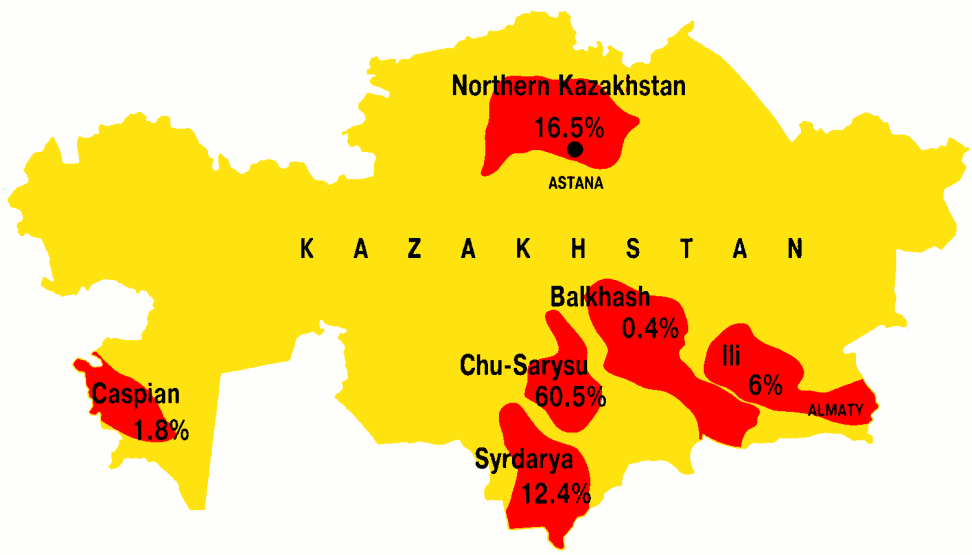
Uranium and Nuclear Power in Kazakhstan

Uranium

Kazakhstan is known as a major source of Uranium for more than 50 years. From 2001 to 2013 its production increased from 2,022 tons to 22,500 tones per year which made Kazakhstan world's leading Uranium producer. In 2009, Kazakhstan became the world's leading Uranium producer with world production of 28 percent, 33 percent in 2010, 41 percent in 2014 and 39 percent in 2015 and 2016. Kazakhstan has facilities for producing fuel pellets with large nuclear fuel and eventually hopes to sell fuel with added value, not just Uranium. China produces 49 percent of its fuel plants (World Nuclear Association, 2018).Mining is an important part of Uranium production. Mine development continued to increase until 2018 annual production. With its 17 mining projects fully owned, five by 'Kazatomprom' and twelve owned by foreign shareholders with joint ventures and trying to generate them at rated power. The total production of the country in 2016 amounted to

24,575 tons. By building Kazatomprom, Kazakhstan has taken further steps to develop Uranium. Founded in 1997, Kazatomprom is a state-owned nuclear company. It controls all uranium exploration and production as well as other nuclear activities, including the imports and exports of molecular objects. It was announced in 2008 that 30 percent of Uranium (39 percent) will be supplied by 2015 and that the joint venture will provide 12 percent, 6 percent and 30 percent of the fuels for the Uranium Conversion market (World Nuclear Association, 2018).The map 5 shows the crucial uranium reserves in Kazakhstan such as northern Kazakhstan, Balkhash, Ili, Chu-Sarysu, Syrdarya and Caspian region which consist a major part of uranium reserves.

Map5: Kazakhstan's uranium reserves:



Sources: Stanford University, 2010

Uranium Production and Mining

Table3: Uranium production of Kazakhstan

YEARS	2007	2008	2009	2010	2011	2012	2013	2014	2015
TONNES U	6637	8521	14020	17803	19450	21317	22548	22829	23800

Source: World Nuclear Association, 2018

Initially the exploration of Uranium mineral started in 1948 and economic mineralization was discovered in several parts of the country and it was supported by various mine exploitation deposits. There are about 50 Uranium deposits in the Uranium province. In 2013, sufficient resources and up to $130/Kg of spare resources were 679,000 tons. In 1970, testing started in Situ Leach and was successful. By 2000, the amount of Uranium mined in the field of solid rock was twice that of ISL, but almost all of the production is now owned by ISL. Uranium production has dropped to one quarter in 1991-1997, but Uranium production has greatly increased since then. Since 2009 Kazakhstan accelerated huge mining growth which became 39 percent in 2015 and 2016 from 28 percent in 2010 (World Nuclear Association, 2018). The above table 3 and table 4 represent the uranium production of Kazakhstan which has expanded in huge numbers from 6637 tons in 2007 to 23800 in 2015.

Table4: Kazakhstan Uranium Production (by mines) (in tones)

Province and Group	Mine	2012	2013	2014	2015	2016	2017
Chu-Sarysu, Eastern	Tortkuduk and Northern Moinkum and Southern Moinkum	4736	4687	5496	5301	11932	3510 plan

Chu-Sarysu, Northern	Uvanas and Eastern Mynkuduk, Central Mynkuduk, Western Mynkuduk, Inkai 1,2,3, Akdala, Akbastau, Karatau	11863	11543	12423	12423	13012	
Syrdarya Western	North and South Karamuran, Irkol, Kharasan 1, 2	2936	6780	7268	4208	5825	
Syrdarya Southern	Zarechnoye	942	931	876	826	828	
Northern Akmolaregion	Semizbay, RU-1	840	742	698	453	511	
Total		21,317	22,451	23,127	23,800	24,560	

Source: World Nuclear Association, 2018

The last preserved underground mines in *Grachev* and the eastern part of the north province have been in operation since 1958 and are now quite exhausted. Kazsabton used them and

joined Tselinny mining and Chemical Co (TGK) in 1999. It processed ore in the Stepnogorsk plant and received about 250 tons per year. The production at Stepnogorsk mining and chemical machinery plant, with a capacity of around 300 tons per year, was the only production outside the ISL, but the mine was decommissioned in 2015. The Semizbai-U was founded in 2006 to extract it. In the Soviet era, The *Balkash Province* was producing volcanic deposits. In the *Caspian region*, the Caspian Sea managed to complete large-scale mining and processing plant on the Mangyshal peninsula in the 1960s which led to creation of the law. It was privatized in 1992 as Kaskor and ceased in 1994(World Nuclear Association, 2018).

There is one existing and planned ISL mining group located in 40.000 square Kilometers of *Chu-Sarysu province* in the southern central part of the country and under control of the state-owned corporation Kazatomprom. The mine in the steppe region that has been operating since 1978, some in the central region since 1982, for example, in the Chu sarysu/Uranium swimming pool, where more than half of the country's well-known resources are located. It is separated from the *Syrdarya basin*/ Uranium region in south of Karatau, where mines in western areas are in operation since 1985. Everyone has considerable resources. Another feature of Uranium mining in Kazakhstan is that Kazatomprom plans to create new mines in three years, compared to twice this time and more in the west, due to regulatory barriers.

The largest ISL mine is *Inkai.* Inkai was founded in 1976 as a joint venture by Inkai (JVI) and has set up this part of the Chu Sarysu pool for Inkai Mine and has the right to ignore the 1, 2 and 3 blocks (including Uranerz in 1996) and Camelots hold 60 percent and 'Kazatomprom' Part 40percent. The two year feasibility study, completed in 2004 and ratified by regulators in 2005, is a study produced by ISL for commercial purposes at 2,000 tones, producing 19 million tonnes in 2013 respectively. The potential production offers 4000 tons / year and plans to increase them to 40 percent to Kazatomprom in three blocks by 2045. JVI has developed Block 3 and put test strips there is 2015 and started producing Uranium with seal of approval. Expenditure is not included in the QQ amounts.

*South Inkai Mine*started testing in 2007 and is expected to reach 1900 tu/ year in 2011. Commercial production officially started in January 2009, when production was 830 tu. Cash operating costs for 2009 amounted to $21 /pound of concentrate, which is expected to fall to $19 in 2013, although at that time there was still a high capital requirement. The another mining area *Akdala* was commissioned in 2006 and produced 1,031 tU in 2008 and 1,046 in 2009 at cash operating costs of $14/Ib concentrate. In 2013 it should rise to 15 USD. Another

mine *Central Mynkuduk* was started in 2007 and run by Ken Dala joint stock company which is a part of Kazatomprom whereas the *Western Mynkuduk* received its first US$ 100 million joint venture agreement in 2006 by Kazatomprom. These mines are important and known for Uranium production and development in Kazakhstan (World Nuclear Association, 2018).

Nuclear Power

After 1991 Kazakhstan started working with Russia in nuclear sector. The nuclear reactor BN-350 in Aktau(formerly Shevchenko) on the coast of the Caspian Sea was built under the auspicious of the Russian Ministry of Atomic Energy. It was designed for a capacity of 1,000 MW but not more than 750 MW (350 MW potential) work and does not work on 520 MW, after it was first available in 1993. It manages Mangistau Energy Company (MEC) and the reactor was the prototype for BN-600 in Beloyarsk. By mid-1999, the plant had successfully produced up to 135 megawatts of electricity and 80,000 cubic metres of drinking water. About 60 percent of the power used to heat and desalt water determines the viability and reliability of these combined heat and power units. In Aktau Energy Complex, consisting of three energy plants, was created in 2003 by MAEK-Kazatomprom LLP. It uses cogeneration to produce 500 megawatts and 40,000 cubic meters of drinking water a day (NTI, 2009).

Kazakhstan's future nuclear plans include 300MW units and small cogeneration units in regional cities. In 2012, the Chinese government adopted a draft master plan for the development of the national electricity industry in 2030, which estimates that the share of nuclear energy should be around 4 percent and 5 percent that requires about 900 MW of nuclear energy. The current capacity is around 20 GW and the demand for 2030 is estimated at 150GW. In January 2014, the President said that "by the end of March, the government should solve problems related to the location, sources of investment, and schedule for the construction of a nuclear power plant" and perhaps more than one (World Nuclear Association, 2018). In May 2014, nuclear production was included in the plan for the development of the fuel and energy complex until 2030, prepared by the Ministry of Industry and New technologies. At the end of May 2014, Kazatomprom signed an agreement with Rosatom on the construction of a VVER nuclear power plant with a capacity from 300 to 1200 MW, near Kurchatov. It would be at the domestic price of Russia, not at a world price, because it was a part of the "common economic space" (World Nuclear Association, 2018).

Since the new legislation on nuclear energy was discussed in January 2015, the Minister of Energy announced that a Russian reactor is likely to be built in Kurchatov and the second in

Balkhash, if justified by the demand for energy. Westinghouse AP1000 will be considered for Balkhash taking into account the financial conditions and arrangements for the construction, operation and maintenance of the facility. Earlier negotiations were announced with Toshiba for the supply of the Westinghouse AP1000 reactor (Kazatomprom is a 10percent shareholder in Westinghouse). In April 2015, the Ministry of Energy says that Kurchatov, Ulken, Almaty oblast or on the western shore of Lake Balkhash. The agreement is expected to build in the middle of the year and in October, the government announced that a strategic partner for the construction of the first plant will not elected until 2017-2018, and its performance will not be needed in 2025, the Minister of Energy, said that the planned construction reactor has been delayed due to an urgent need. In response to the government's request to report on legal framework in Kazakhstan, nuclear security, radioactive waste management, human resources development, stakeholder participation and potential adoption, IAEA(International Atomic Energy Agency) mission-D inland infrastructure testing (INIR) in September 2017. The Energy Ministry has been doing a viable study in 2018 on the creation of a nuclear power plant (World Nuclear Association, 2018).

Electricity

Since the Kazakhstan was a part of Soviet Russia the major part of its electricity sector was developed before 1991 therefore the current power generation through electricity is quite low. Most of the Kazakh electricity comes from coal-fired power plants concentrated in the north of the country near coal fields. Kazakhstan's overall production capacity was 22.1 GW by 2017. In 2016, Kazakhstan generated 94.1 billion kilowatt hours of electricity, of which 87percent fell to the factories operating in gas storages, 12 hydroelectric power stations and more than 1percent for solar and wind installations. The chart 4 shows the electricity production in Kazakhstan from 2000 to 2012 which has drastically reduced. The only nuclear power plant in Kazakhstan, the BN-350 nuclear reactor in Aktau, was closed in 1999. While there are plans to build more nuclear power plants, there has been little progress in the construction of these facilities (International energy agency, 2018).

Chart4: Kazakhstan's electricity production (kWh)

Sources: World Bank, Trandingeconomics.com.

Kazakhstan's national network is administered by the Kazakhstan Power Grid Cooperation, a state-owned company responsible for power transmission and network management. Some small and medium sized regional utilities are allocated, while others are privatized. Natural monopoly and distribution departments are regulated by the government. However, as a major part of the electricity transaction belongs to the private sector since it's a competitive market. The demand for electricity is going to increase in future at 2.5 percent per year from 2005 to 2030 (International energy agency, 2010). Therefore Kazakhstan has to develop this sector more to increase the power generation for its future.

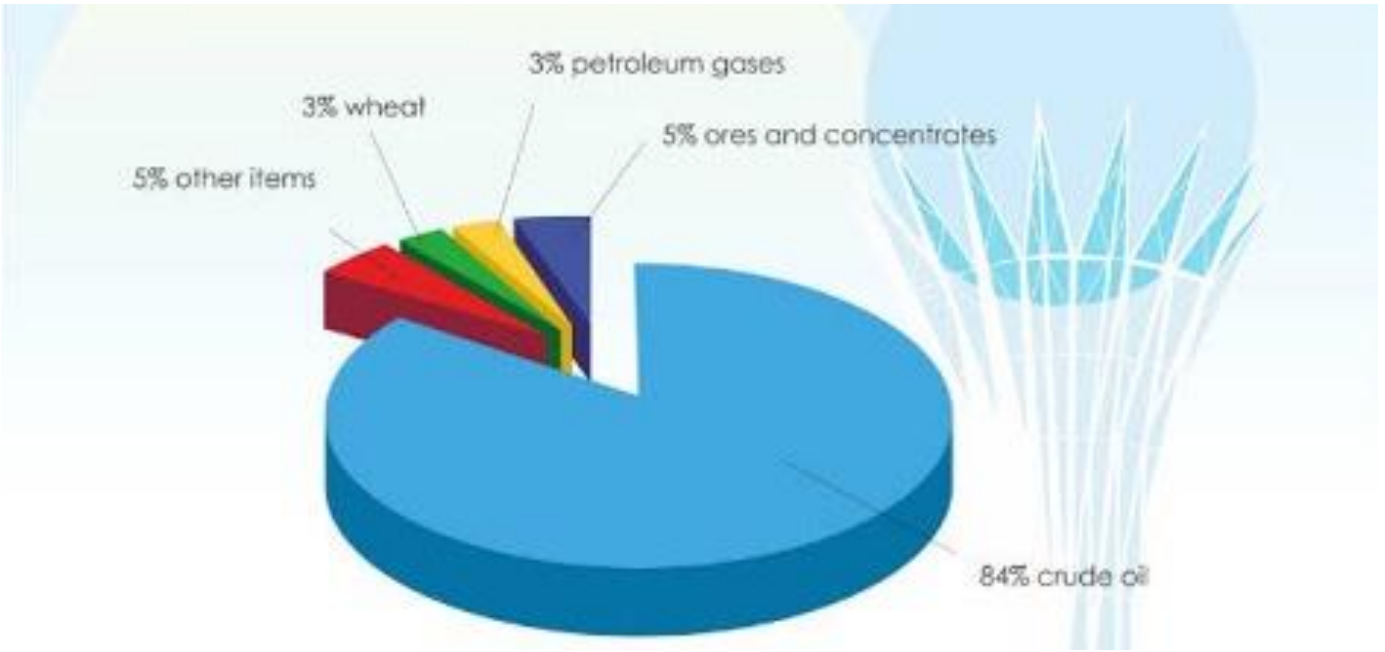
Significance of Energy reserves in Kazakhstan

The energy sector of Kazakhstan is one of the most crucial sectors of the development of its country as a whole. The abundant amount of oil, natural gas, uranium and coal has made its position higher in the world politics. The country has second largest oil deposits in Eurasia after Russia and sufficient amount of gas reserves. The production and export of oil resources helped the country to expand its economic business which has led to economic development of Kazakhstan. The oil reserves are the most crucial reserves for Kazakhstan which has marked its leverage in its region. Similarly the gas reserves add benefits for Kazakhstan in developing its economic sector and also its presence in the region. While on the other side Uranium is one of the most crucial energy reserve of Kazakhstan. From a long time Kazakhstan has been known for one of the leading uranium rich country. It exports Uranium

all over the world hence supports the economy of the country. It has been remained the leading producer of uranium for many years during 2000-2013.

However the country lacks sufficient amount of water reserves therefore it lacks power to generate electricity. Most of the present working hydroelectric sector of Kazakhstan had been developed during soviet era therefore it lacks development which has to be done soon. Nevertheless the energy sector and its reserves are a crucial part of enhancing the position of Kazakhstan internationally. The increasing production and export of oil and gas has increased the number of foreign projects and investment in Kazakhstan. The country earns in abundant from its oil exports. As per the reports from United Nation broad economic categories in 2012, the country earned 68.3 billion dollars from its energy exports which accounted for approximate 74 percent. The pie chart 5 also shows the energy exports in Kazakhstan which shows the huge contribution of oil and gas in economic development of Kazakhstan. Therefore it shows the significance of energy reserves in Kazakhstan especially in the development of the country.

Pie Chart:5 Energy exports in Kazakhstan



Sources: United Nations broad economic categories, 2013

Energy Investment and Implications

Kazakhstan has enormous amount of energy reserves such as oil, natural gas, coal and uranium in huge numbers but the country failed to develop sufficient amount of

transportation infrastructure in energy sector. The energy supply from Kazakhstan has always been difficult due to its landlocked nature and less developed supply infrastructure. Under the rule of Soviet Union the energy reserves (oil and gas) were extracted from Central Asian Republics in huge amount but the energy sector of these countries remained aloof from self-development. Beside these problems of supply, the regions (Europe) which demand energy are also far away from Kazakhstan which creates more problems for the energy supply. There is a need to develop the energy setup in Kazakhstan to have smooth supply of energy and which will also increase more demand from energy prone regions (Doi, 2010).

In order to increase its energy export and investments in energy sector, Kazakhstan started getting involved with other regions and invited them to explore the country's resources after 1991. It started focusing on the development of its energy infrastructure from 2000s. However, the country needs more improvement and investment in the energy sector. The country faces the problem of financial and technological issues which needed to be solved fast which will flourish the incoming of foreign investors, companies and energy supply in Kazakhstan. These points will increase the economic gains of Kazakhstan and spur its energy supply to the energy markets which will lead Kazakhstan to make a strong foothold in its region.

Chapter-3

Transport Routes and Pipeline Politics

In the Caspian region significant oil and gas reserves have been developed in the past two decades. Due to their large amount of oil and gas reserves Kazakhstan and Caspian Sea are gaining increasing attention from the Western oil and gas companies which are looking for new sources of hydrocarbons (oil and gas). Kazakhstan has become the major source of oil and gas at the beginning of the 21st century since it has huge amount of hydrocarbon reserves such as oil, gas and uranium. It has considered important by many companies having huge commercial potential Such as Chevron (US), China National Petroleum Corporation (China). It has major oil and gas projects which are under construction or in the planning phase, for example the Kashagan oil fields. In this context, Kazakhstan is forecasting a doubling of its oil production in the next 10 years to about 200 million tons per year (BP, 2012). In parallel with the increasing development of oil and gas production in Kazakhstan, the construction of pipelines also became important especially in a country like Kazakhstan which is landlocked and having huge amount of energy reserves such as oil and gas to export them to the world energy market.

Kazakhstan's Location and Need for Pipelines

After the dissolution of USSR, Kazakhstan became independent and started its own path of development as a country. Kazakhstan is the world's largest landlocked country (area of 2724900 km), it is located between two major power i.e. Russia and China (Krug, 2001). The region has abundant amount of energy resources but due to its location it is difficult for it to reach world energy markets. It has two major problems i.e. Lack of access to sea and huge transit distances and rely on its neighbors for export. Since it's a landlocked country and lacks access to water, it has to depend on two things i.e. pipelines and its neighbors to transport energy resources to the world market (Gupta, 2016).

In the Caspian region, Kazakhstan is the major producer and exporter of energy reserves. Despite having sufficient amount of oil and gas Kazakhstan's temporary infrastructure is insufficient to meet its supply and demand and therefore affecting its economic growth adversely. Kazakhstan needs new routes and further new pipelines to improve its energy supply and economic growth in the region. Pipelines played a major role in this aspect since

it helps a landlocked country like Kazakhstan to export its energy reserves to different parts of world with the help of different transport routes. Therefore these pipelines are the backbone and most important tool of these transport routes for oil and gas, which is supplemented by rail and road transport routes.

In the case of pipelines, location and international relations play a big role and influence the decisions of any country. The safe and secure supply of energy reserves have become an important objectives of every country. Therefore there are two major controversies with transport: geography and international Politics (Gupta 2016). It is not easy for a country like Kazakhstan to ship and export its energy reserves (oil and gas) to the energy market of Europe due to its difficult location. Borders and politics represent even worse problems. Kazakhstan has always faced the problem of how to best export its energy resources especially of its substantial oil reserves (Fishelson, 2007). During 1990s, the pipeline routes were limited and rail routes for exports were more reliable in Kazakhstan (Kandiyoti, 2008). As the rail routes become more expensive by 2000 (International energy agency, 2012), there after Pipelines became more relevant because they are less expensive and can outreach more regions.

Major Transport Routes and Pipelines

The relevance of energy security has marked its importance today in international politics. In order to safely supply of energy in the present world the transport routes are very relevant for exporting these energy reserves (oil and gas) from one region to another region. Initially the road routes and railways routes were considered sufficient for transportation in Kazakhstan however with time pipeline routes became more important and sufficient to export the oil and gas from Kazakhstan to world energy market (Kandiyoti, 2008). With increasing partners and the increasing demand of oil and gas has led to the construction of many new pipelines by Kazakhstan who has abundant amount of energy reserves such as oil, gas and coal.

The transport route of Kazakhstan was mainly connected to Russia till 1991 and even after the breakup of Soviet Union the major chunk of Kazakh's oil and gas used to be exported through Russia in 1990s. Therefore the transport routes were remained connected to Russia, as Kazakhstan was a part of Russia before 1991. After 1991, independent Kazakhstan wanted to reduce its dependence on Russia, therefore adopted the policy of diversifying its transport routes through initiating new pipeline projects and collaborating with new partners such as

China, US. Kazakhstan made huge progress in this regard from 1997onwards when it started building its energy partnership with China and many other players like US, Iran and European Union (Henrikson, 2013). By developing different routes and pipelines, Kazakhstan can gain different partnerships and partners in international platform which can further help the country in economic and political development and gaining more in energy sector. Following are the major pipeline transport routes of Kazakhstan which are important to study the pipeline politics in Kazakhstan. It has mainly four pipeline routes:

1. **RussianRoute**

2. **ChineseRoute**

3. **WesternRoute**

4. **IranianRoute**

Major Routes and Pipelines

The Russian Route

The Russian pipeline route has been the most crucial route for Kazakhstan for decades. It has helped Kazakhstan to export large amount of oil and gas through its territory. Russia being the elder brother has the bigger hand in energy sector and influences the pipeline routes of Kazakhstan. Russia has managed to expand its oil policy and has started to work with oil and gas to increase the pace as a political instrument. Russia is a major energy player having the large chunk of natural gas and oil reserves in its control. It supplies a huge amount of energy reserves to different parts of the country mainly Europe. It satisfies more than 80 percent energy demand of Europe for oil and natural gas and also works as a transit country to export energy reserves of its other neighboring countries (The Economist, 2007).

Russia believes that Central Asia is firmly in its area of influence, due to its impact in this area, losses and benefits, especially economic, are being taken away from it. Apart from this, by combining its own reserves with Central Asian reserves, Russia can become an oil power that can compete with the Middle East (Fishelson, 2007). Like the 20th century, the USSR used to rely on its armies as a superpower and also Russia will depend on oil and gas in the 21st century. Kazakhstan is the immediate neighbor of Russia and has much close relations with Russia. After Kazakhstan's independence in 1991, most of its oil was supplied by Russia. In Soviet Russia, there was a monopoly of Russia pipelines and most of the

transportation in the Soviet region was done by Russian dominated pipeline routes (Hays, 2016). The Central Asian states like Kazakhstan and Turkmenistan mainly remained connected with Russia for exporting their oil and gas to the world market. Kazakhstan's northern pipeline route connects it to the Russia which started with Uzen-Atyrau-Samara Pipeline.

Uzen-Atyrau-Samara Pipeline- It is the oldest and a major export channel in Kazakhstan and still continued to be an important route for producers in western Kazakhstan. It was put into service in 1970s as part of the progress of Uzen region to supply the Russian route of oil and controlled by Transneft (International energy agency, 2010). It is an important export pipeline from Kazakhstan (Atyrau to Samara) which links it to Russia. The Russian route, Transnet's Russian distribution system is the northern network of communication, which links Kazakhstan with the world markets through Black Sea. Before the construction of Caspian Pipeline consortium, the Atyrau-Samara pipeline used to be the major export route for Kazakhstan (US information energy agency, 2012). The Samara region was developed more with additional heating stations and pumping and its capacity increased to 600,000 barrels per day (Fishelson, 2007). Kashagan oil was transported through the Atyrau- pipeline, while crude oil quality was maintained for further transport by the Transneft system in the total flow of low-sulphur light Siberian oil to the port of Novorossiysk and subsequent exports from January 2017. The Map 6 shows the Uzen-Atyrau-samara pipeline and its location in exporting the energy reserves of Kazakhstan.

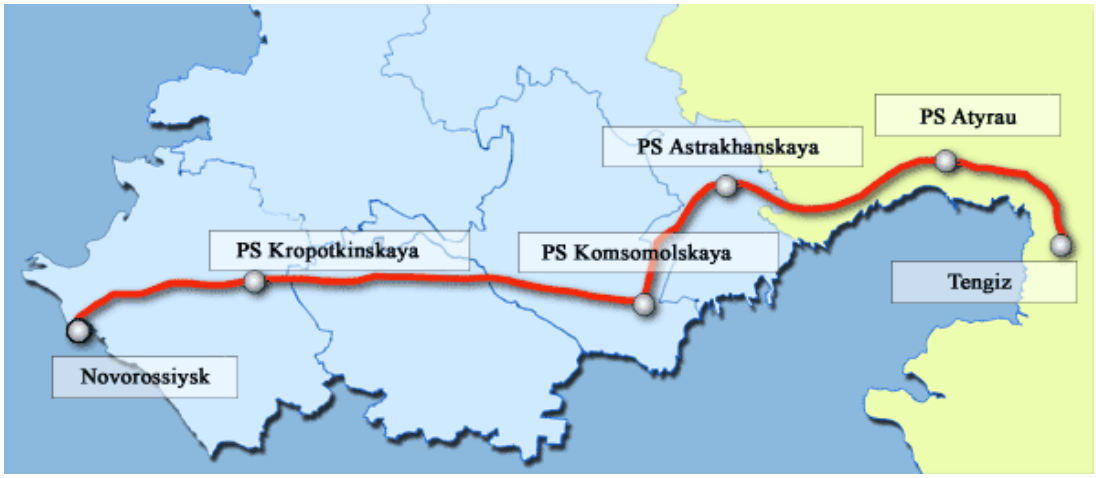
Map6: Uzen-Atyrau-Samara Pipeline

Sources: Project Smart Explorer, 2013

Caspian Pipeline Consortium (CPC)-The Caspian Pipeline Consortium was founded in June 1992 by the Kazakhstan's government and Oman by the Oman Petroleum Company (OPC). The CPC has launched a project to develop an oil pipeline from West Kazakhstan. Following the adoption of the Pipeline blueprint, Russia was invited to join the consortium. According to the plan, Russia will grant the Caspian pipeline consortium access to its territory and the existing Russian Tengiz-Grozny gas pipeline as well as oil-loading facilities in the port of Novorossiysk. On October 23, 1992 Russia signed an intergovernmental agreement with Kazakhstan and Oman on accession to Caspian pipeline consortium and Azerbaijan followed as the fourth member of the consortium. The work and progress in this project stalled for many years. Finally the Caspian pipeline consortium was put into operation in 2001 extends from the Tengiz field to 940 miles of the Novorossiysk port of the Black Sea in Russia as it is shown in Map 7. It is solely an oil pipeline. The four major shareholders of the alliances are Transneft (24 percent), KMG (19 percent), Chevron (15 percent) and LuKArco (12.5 percent). The pipeline consists of reconstructed pipelines along the Caspian Sea and new components along the route (Fishelson, 2007).

Caspian pipeline consortium transported an average of 684,000 barrels of oil a day in 2011 with a daily output of 608,000 barrels in Kazakhstan and a daily output of 76,000 barrels in Russia. In addition around 53,000 b/d of Tengiz crude oil will be loaded into rail vehicles in Atyrau, Kazakhstan (Hays, 2016). There is complexity and competition of oil politics in the region. There is an example of oil geopolitics is the CPC with various shareholders: Russia-24percent, Kazakhstan-19percent, chevron-15percent, Oman-7percent. The rest are oil and gas companies. In addition to Kazak oil, the CPC also exports major Russian manufacturers such as LUKOIL, Rosneft, Surgutneftegas and TNK-BP. The major advantage of Caspian Pipeline Consortium is that despite all the difficulties it has already started and running successfully unlike other pipeline projects which are still on hold such as Trans Caspian pipeline project. Due to the flat land, the pipeline is quite inexpensive and its supply can be easily increased. From Russian point of view, the Caspian pipeline consortium shows the Kazakhstan's dependence on Russia to export its oil and gas safely to the global energy market.

Map7: Caspian Pipeline Consortium (CPC)



Sources: Eurasian Energy Analysis, 2010

However, the different Caspian pipeline consortium partners are not always closely related. Russia threatened to revoke the operating license of its partners after 2006. The Chevron and other western shareholders attempted to increase transit payments by 9.1 percent to 29.88 percent as a mark of their strategy. Russia has also increased the transit payments by 38.8 percent (Economic intelligence unit, 2007). Russia has even demanded tax returns to improve its position. The Caspian pipeline consortium can create some political problems also. Given its past relations with Ukraine, Kazakhstan rightly fears that Russia will someday decide to drastically increase transit fees or more drastically close the Caspian pipeline consortium which is an important supply route for Kazakhstan. It can also pressurize Kazakhstan politically and economically to follow its diktats such as strategies like increasing transit fees and price hike. Therefore the more the Kazakh government aspires to independence from Moscow, the more it will try to breakup away from the Caspian pipeline consortium in order not to play independently in the energy politics (Kramer, 2007).

However Russia's most affective strategy in international diplomacy remains the scepticism of the transit fee, which is implicit (or obviously dangerous) and emphasizes its dependence on the country. Through this strategy, Russia should be able to ensure that the vast majority of Caspian oil continues to flow through its territory. However, overtime, Kazakhstan may reduce its dependence on Russia which had previously expanded to cover all sectors of the economy including newspapers, television, food and transportation (Economist intelligence unit, 2007). Kazakhstan being a growing economy now started to produce and acquire these things for themselves or find other sources for them. The government also played an active

role in building new railway lines, upgrading oil roads and building new pipelines so that it increase its independence and can travel easily from east to west without passing through Russia thus making a contribution in the development of independent industry and agriculture of its own.

If this situation develops Russia has to rely on Carrots than on stick. With increased independence of Kazakhstan, Russia insists on heavy transit tariffs, especially if it stops the CPC for political reasons and Kazakhstan may want to be more interested in seeking an alternative transport route for its oil. As Russia becomes more concerned about the transit charge, the prospect of increasing CPC capacity, as opposed to the increase in geopolitical influence controlled by oil turnover is greatly reduced. In addition, the CPC pipeline supplies only oil. Most likely, the Caspian gas pipeline will need to be connected to Turkmenistan to take advantage of the country's huge natural gas reserves. However, Turkmenistan proved to be unreliable negotiating partner, as evidenced by the plan of the U.S. - sponsored Inter-Caspian Pipeline (Economist intelligence unit, 2006).

The Chinese Route

Since Kazakhstan was a part of Soviet Russia it relied heavily on Northern Route (Russian route) but with increasing choices and partners it started searching for another routes also and the major player which came as a huge option for Kazakhstan was China. On the one hand, China being an emerging global player has a huge energy demand which resulted into increasing Chinese interest on Kazakhstan. On the other hand, Kazakhstan also needs new partners to reduce its huge dependence on Russia in energy sector and the Chinese route fits well for that. The year 1997 marked the landmark beginning of Kazakhstan and China energy relations. In this year Kazakhstan and China signed a pact on the establishment of the China-Kazakhstan oil pipeline. It's a joint venture of CNPC and KazMunaygas, which, as said, delivered a pipeline from the Caspian Sea to Xinjiang (Henriksen, 2013).H The deal marks an emerging partnership of these two players which has impacted the geopolitics of the region. **Kazakhstan-China Pipeline**-The Kazakhstan-China oil pipeline covers an area of 1,384 Kilometres and is transported from the port of Atyrau in the northwest of Kazakhstan to Alashankou in the northwest of China, Xinjiang (shown in map 8), with a capacity of 240,000 barrels per day. At present, the pipeline is expanding, which will increase its capacity to 400,000 barrels per day (GeoHistory, 2007). Extra power will be used to transport at least some Kashagan oil. The ownership of the pipeline is a joint venture controlled by the

Kazakhstan-China pipeline LLP. It is managed by two companies Kaztransoil and CNODC. China assessed the market value as high and had to sell back a third of its stake in the Kazakh state oil company KazMunayGaz to the government as part of the transaction. The surprise over this seemingly one-sided deal is mitigated by the wretched oil need in China, due to the explosion of the Chinese economy combined with relatively small proven internal reserves. The acquisition of Kazakhstan oil is just a small part of China's plan to acquire Central Asia oil.

In 1997, China and Kazakhstan signed an agreement on the establishment of a Sino-Kazakhstan oil pipeline. The initial part of the $700 million pipeline from Atsau to Alataw was 962 Km long. It has started pumping oil from the Kumkol field in the Aktobe region in May 2005, making it the first pipeline to deliver directly to China (Xinhua, 2007).It has capacity of 20 million tons per year, accounting for 15percent of total imports to China in 2005, although currently it is only half that. When the oil comes to Altau, it will be supplied via the Chinese pipeline network 246 km to the oil refinery in Dushanzi in Karamay. In 2006, the first launch site of the Atsu-Alashanka pipeline was started and the project was completed in 2008. In the first phase of operation, the pipeline's annual production capacity is 10 million tones. In 2013, the pipeline was almost completed and action was taken. The two pumping stations No8 and No10 were completed which made rise in its supply by 20 million tons per year. Since 2014, Atsau-Alashanka has been covering Russian oils with Kazakh oil. The agreement between KazTransOil and Rosneft was provided for the transfer of 7 million tones of Russian oil per year through this pipeline (Fishelson, 2007).

This KCP is useful for both Kazakhstan and China. Unlike existing or planned pipeline routes from Central Asia, KCP offers direct transport routes. No transit fees are required in Kazakhstan and no country will pay off its oil debts in Kazakhstan and shut down the pipeline. At the same time, as compared to PetroKazakhstan, China has already demonstrated its willingness to pay for natural resources and will never diminish as buyers of Kazakhstan without the full deployment of the Chinese economy, also oil demand in the near future should not be reduced as Kazakhstan guarantees buyers. A very transparent Chinese government will pay attention to the corruption of its partners in Kazakhstan until oil is reached at a timely and agreed price. The pipeline has already been set up and will only be difficult to deal with, as it has only two partners.

However there are drawbacks also. Despite the fact that the Landscape is quite flat, 3000 Km is a long way to start the pipeline. Because of this length, the added value of shipping slightly compensates for the cost of transporting Caspian oil short-haul routes. In addition, extremely cold winter grasslands in Kazakhstan mean that if the pump station is temporarily stopped, the oil in the pipeline can be completely stopped with a relatively low paraffin content oil quality, as indicated in 2005-2006 happened in winters (Petroleum Intelligence Weekly, 2006). Length and bad weather will increase pipeline maintenance and repair costs. In addition the Kazakhstan -China pipeline dedicated to oil. China has more gas reserves than oil reserves and has supplied natural gas from Russia's oil fields. Despite technical and economic research on the Kazakhstan- China natural gas pipeline, the estimated value is about 4 billion U.S. dollars. Until now, the United States has proved invincible. This is why we need to find the way for the new route of natural gas for Kazakhstan.

This is a fact that the pipeline belongs exclusively to Kazakh and Chinese company does not mean that Kazakhstan and China will fully control the oil they will supply. The oil which comes from the Caspian Sea fields, and Subsea and oil wells will require much more advanced technology than China or Kazakhstan. This is particularly true for the massive Kashagan field with a large amount of toxic hydrogen sulphide. In addition, the field is located in the northern flat of the Caspian Sea, which freezes during winters (Economist intelligence unit, 2007). Also the Kashagan Consortium, known as AGIP KCO (Agip Kazakhstan North Caspian Operating Company), is run by Italian company ENI, which is bowing to western pressures to try to prevent oil transfers from China to China's markets in the event of an embargo. Also, most other Caspian oil fields, which are likely to supply the smaller portion of the oil, are owned by tengizChevroil, a joint venture between the government of Kazakhstan and Chevron, which would prefer to ship its oil to the United or Japan through the Caspian Pipeline Consortium (CPC), in which she is involved.

Map8: Kazakhstan-China Gas Pipeline

Source: European Tribune, 2018

In addition, Kazakhstan can only transport oil to China along the KCP. The idea of building a pipeline linking China and the pacific has come about, but China's cost of pushing oil to free markets and understandably reluctant has destroyed the plan. At present, the fact that there is only one buyer is not a big one, but it is absolutely a pledge that most of the national income of foreign countries is dangerous. Kazakhstan has said it will not give too much control over China's oil resources, indicating its adherence to the acquisition of KazMunayGas, a third of China's share, under the 'Kazakhstan Oil Company Agreement'.

In short, since this pipeline has been basically completed and there is no third party authority that could hinder its construction, there is no other measure beyond the construction delay that could be completed by around the year of 2011 although there may be some difficulties in signing up to purchase the Caspian oil agreement. With the increase in demand in China, the production capacity of this pipeline may also increase, but it is still too early to predict reliably whether this situation will happen and when. From a political perspective, the Kazakhstan-China Pipeline has united the two countries and opened up the opportunity for a trade agreement. Unless the embargo is announced, the pipeline will be denied oil. This is very doubtful. However, the fact that China cannot directly purchase oil from Kazakhstan raises the possibility of raising prices and eliminating some autonomy which is major advantage of direct pipeline. If the relationship between the two governments is depleted,

Kazakhstan can shut down pumps, but Kazakhstan is unlikely to take decisive measures to cut off such a huge source of income (Fishelson, 2007).

Central Asia-Gas Pipeline Network-

Turkmenistan-China Gas Pipeline-On August 2007, Kazakhstan and China decided to build and operate New Natural Gas pipeline. Then another agreement was reached with KazMunaiGas and CNPC (signed in November 2007). The original agreement provided for two natural gas pipeline systems in Asia: the first (via South Kazakhstan) to become part of the Turkmenistan-China natural gas pipeline in Kazakhstan as shown in map 9. This natural gas pipeline relies mainly on natural gas from Turkmenistan, followed by western Kazakhstan, which is rich in oil resources. The part of Kazakhstan in Turkmenistan-China gas pipeline runs from the Uzbek Kazakhstan border to the border between China and Kazakhstan through the Kazakh city of Chimkent and ends in Khorgos, in the autonomous province of Xinjiang, the autonomous province of Uygur. The Kazakhstan china gas pipeline is a part of Turkmenistan-China gas pipeline project which runs through Turkmenistan (188km), then Uzbekistan (530km) and then through South Kazakhstan (1333km) to the west of China. The Turkmenistan China main pipeline will consist of two parallel lines pipelines, each with a diameter of 1067 mm and five compressor stations (Upstream Online, 2007).

Map9: Central Asia-Centre Gas Pipeline and Kazakhstan China Gas Pipeline

Sources: Eurasian Energy Analysis, 2009

China has taken steps to ensure that the output of natural gas (from Turkmenistan) is sufficient to fill 30 billion cubic meters of pipelines and provide safe transport through Uzbekistan and Kazakhstan. China and Turkmenistan signed the Turkmenistan-China Natural Gas pipeline agreement on April 2006 (Pipelines International, 2012). China signed a similar agreement with Uzbekistan (April 2007) and Kazakhstan (November 2007) also with regard to their own region. In 2008 the KazTransGas, a subsidiary of China National Petroleum Corporation (CNPC) and Trnas-Asia Natural Gas pipeline become the sole operator of the Kazakhstan part of Central Asia-China Gas Pipeline. The second natural gas route in Central Asia-China gas pipeline i.e. Western Kazakhstan- Western China (Beyneu-Bozoy-Kyzylorda-Chimkent) can only work through Kazakhstan but also can be used as a guarantee from Central Asia to China's natural gas supply.

TheBeyneu-Bozoy-Kyzylorda-Chimkent pipeline is 1480 km in length and 1016-1067 mm in diameter with an estimated annual capacity of 10 billion cubic meters (29.61 million cubic meters/ day). The pipeline project, started in 2005, has undergone many changes including the pipeline's geographic route and annual capacity. Kazakhstan and China initially planned to build a pipeline along Central Board: Zhanazhol-Chelkar-Atasu-Dostyk-Alashankou with an annual capacity of 30 billion cubic meters and 40 billion cubic metres by 2015. Since then, due to financial reasons the flow of pipeline has dropped to 10 billion cubic meters. Initially central route was chosen for this pipeline but it was changed to current route due to two main reasons: due to problem of gasification in South Kazakhstan and large chunk of gas reserves access.

Compared with Atyrau, which was previously proposed in the northern part of the Caspian Sea, the strategic starting point i.e. Beyneu is far more important. Beyneu's gas department in Central Asia is close to the Caspian hydrocarbon reservoir in Kazakhstan. The other major point for Western Kazakhstan-Western China pipeline is Bozoy which is on Aral Sea. The natural gas from Kazakhstan's Aktobe oil and gas fields can also be used for new pipeline projects. It is noteworthy that the same is true for Zhanazhol, China's main natural gas asset in Kazakhstan located in the area of Aktobe.Kyzylorda is the last important point in the pipeline which has potential connectivity in Natural Gas extraction from Kumkol to Akshabulak oil fields. In addition to the possible export of natural gas to China, it will also reduce gasification problems in South Kazakhstan, Almaty and especially in Kyzylorda.

The Kazakhstan part of the pipeline was opened on December 12, 2009 during the visit of Chinese President Hu Jintao to Kazakhstan. On December 14, 2009, the entire pipeline was opened during the ceremony in samanDepe with the presence of leaders of Uzbekistan, Turkmenistan and Kazakhstan in Turkmenistan. On June 13, 2010, China and Kazakhstan signed an agreement on the western branch of Kazakhstan as shown in map 9. The second phase was completed by the end of 2010. The third line, which started construction in 2012, and commenced operation on June 15 and in 2014 it is expected to reach 25 billion cubic meters in December 2015 (Oil and Gas Journal 2010). This pipeline is a very important interconnecting pipeline that connects the main gas pipelines in central Kazakhstan to a single system that provides greater flexibility and gas exchange for Kazakhstan to provide natural gas to all markets.

Map10: Kazakhstan-China Gas Pipeline

Sources:https://en.wikipedia.org/wiki/Central_AsiapercentE2percent80percent93China_gas_pipeline

The Western Route-

The dissolution of the Soviet Union (1991) led to the redevelopment of the former Soviet republic, the Caucasus and the Caspian region and its surrounding areas. In view of the issue of strategic energy, a regional alliance between Turkey, Azerbaijan and Georgia was established in the 1990s. This reflects the geopolitical reality of the post-Cold War era. The first document on the construction of the Baku-Tbilisi-Ceyhan pipeline was signed on 9 March 1993 in Ankara, between Azerbaijan and Turkey. The "Ankara Declaration" adopted by the Presidents of Azerbaijan, Georgia, Kazakhstan, Turkey and Uzbekistan on October 29, 1998, strengthened the project. On November 18, 1999, the Organization for Security and Cooperation in Europe signed the Istanbul Intergovernmental Agreement on Pipeline Support, Turkey, Azerbaijan, Georgia, and Turkey. Baku - Tbilisi - Ceyhan Pipeline was established in London on August 1, 2002. The pipeline project is located on September 18, 2002. The project began in April 2003 and was completed in 2005 (Henriksen, 2013).

The Baku-Tbilisi-Ceyhan (BTC) pipeline is a gas pipeline of Azerbaijan-Gagar-Geisi located on the Caspian Sea to the Mediterranean, measuring 1,768 km (1,099 miles) in length. It connects Jayhan in the Turkish capital, Baku, to the Turkish south eastern Mediterranean coast through Tbilisi, the capital of Georgia. This is the second Soviet oil pipeline after the friendship channel. There are 443 km (275 miles) of pipelines in Azerbaijan, 249 km in Georgia and 1,076 km in Turkey. It crosses several mountains at 2,830 meters above sea level. It also crosses over 3,000 roads, railways and utilities networks - both on and off the ground - and there are 1,500 waterways with a width of 500 meters (the Ceyhan River in Turkey). On May 28, 2006, the first batch of oil from Baku arrived in Ceyhan (Oil and Gas Journal, 2008).

Kazakhstan Caspian Transport System (KCTS) and Baku-Tbilisi-Ceyhan pipeline (BTC)

The Kazakhstan's Caspian Sea Transportation System (KCTS) is an important project aimed at increasing the oil exports from the port of Kuryk to Baku to Azerbaijan and connecting it to Baku-Tbilisi-Ceyhan Oil pipeline (Map 11). According to the plan, Kazakhstan Caspian Transport System will become a transport system, including the Eskene-Kuryk pipeline, the

sea terminals of Kuryk and Azerbaijan, and a group of oil tankers that transport oil through the Caspian Sea. The main oil supply for the pipeline will be used for the future production of Kashagan. The initial capacity of the Kuryk terminal is 760,000 barrels per day and the KCTS will be expanded to 2025 with a daily capacity of 1.1 million barrels (US International energy agency, 2012). Since the launch of the US-backed BTC pipeline in 2005 and the delivery of its first oil shipments in 2006, Kazakhstan has received new potential export routes. The fact that the pipeline has a daily capacity of 1 million barrels is privately owned by a large international oil company in order to avoid Russia and make BTC an important competitor to the pipelines of the Russian Communist Party and Atyrau Samaras. In 2005, Kazakhstan announced a formal plan for the development of the export channel that traverses the West. Next year, Kazakhstan and Azerbaijan signed a framework agreement for the supply of oil to the BTC pipeline (Henriksen, 2013).

Map11: Baku-Tiblisi-Cehyan Pipeline

Sources: Radio Free Europe Radio Liberty, 2006

Kazakhstan promises to transport 25 million tons of oil via BTC. The BTC export plan is not without problems. Following the conclusion of a new agreement in 2008, Kazakhstan started exporting oil via oil tankers via BTC in 2008, but it led to a tariff dispute in 2010. These differences are clearly based on economic considerations. In 2012, the Minister of Kazakhstan declared that the export may begin again: "... if it has a certain spare capacity, the economic status of Kazakhstan is acceptable" (Henriksen, 2013). Due to the delay in the

development of the Kashagan oil field, a large number of exports by BTC have also been delayed. As Kazakhstan does not have oil that exports a lot of oil through BTC, and there are currently no other export routes for Kashagan production, these delays have spread to KCTS. In the early and mid-21st century, BTC may need Kazakh oil to fill its capacity and make the project profitable, as there is no oil available for Azerbaijan.

However, oil production in Azerbaijan increased too fast from 2005 to 2009, so this figure may not be applicable since 2009.This development may be related to the tariff dichotomy as the increase in oil production in Azerbaijan has made Kazakhstan's oil demand reduced to fill oil's position. In the long run, Azerbaijan may need Kazakhstan's oil to run the BTC pipeline because reserves are much lower than in Kazakhstan. In Political and foreign policy, Kazakhstan's commitment to BTC and the development of KCTS strengthened Kazakhstan's diversified foreign policy. By developing the main export routes in the West and circumventing the control and influence of Russia, Kazakhstan is expanding its export routes as it fully exploits KCTS 'full potential. For this reason, the important part of Kazakh exports to Russia is reduced by 75percent (2010), which reduces dependence on exports on Russian export routes (Henriksen, 2013).

While pursuing its own interests, Kazakhstan has taken into account the interests of the United States, Japan, and Europe in its respective international oil companies representing the BTC pipeline. One of the important components is the international oil company Eni (Italy), which is operated by Kashagan, Total (France), ConocoPhillips (USA) and Inpex (Japan). It also owns Baku-Tbilisi-Ceyhan pipeline's shares and is therefore interested in Kashagan's oil exports. These developments and achievements show that Kazakhstan’s influence on Moscow is insufficient, but there is still room for balance between Russia and the United States and European countries. The fact is that this shows that Kazakhstan not only talks about the pursuit of a multi-vector policy, but also realizes it in practice.

As of the second half of 2015, Kazakhstan has stopped shipping oil through the BTC (Baku-Tbilisi-Ceyhan) pipeline. Kazakh oil exports to Azerbaijan are not routinely carried over the Baku-Tbilsi-Ceyhan oil pipeline, the Baku-Supsa pipeline and the railways until 2016.Kazakhstan resumed the transportation of oil via the Baku-Tbilisi-Ceyhan (BTC) pipeline. Kashagan oil is transported through the Atyrau-Samara pipeline, which preserves the quality of crude oil for further transportation through Transneft. The PJSC system entered the port of Novorossiysk with a combination of low-sulphur Siberian oil and was

subsequently exported in January 2017. Since early 2017, about 90,000 tons of Kazakhstani oil has already been exported via Azerbaijan via the BTC pipeline.

THE IRANIAN ROUTE

Iran is one of the strategically important countries in Middle East. It is one of the largest oil producers in the Middle East. In addition, infrastructure, oil refineries and energy transformation allowed Iran to play an active role in regional energy policy. In the 1990s, Kazakhstan had difficulty obtaining export capacity and pressure to introduce export quotas for Russia (Kandiyoti, 2008). Kazakhstan and Iran have reached an agreement and decided to purchase another export route and increase their throughput capacity. However, this trade volume was 6 million tons of oil per year from the beginning. That's good for both countries. Iran received oil in its northern region and Tehran without having to build new pipelines in the southern oil fields, saving on transportation costs. Moreover, Iran has called for an equal share of oil in the Persian Gulf world market. Kazakhstan has achieved another export route and has increased diversification, can export it at a cheaper price and gained in the world market.

The transaction was initiated by Kazakhstan, but the United States has asked Iran to avoid transit. US sanctions against Iran are an important issue in this direction and decrease the possibility of access to key export destinations. US sanctions against Iran have hampered American companies such as Chevron and ExxonMobil, which oversee most of Kazakhstan's oil production for oil exports to Iran (Kandiyoti, 2008). However, other companies can sell Iran. Another problem is the lack of opportunities. This did not allow Kazakhstan to diversify its export routes. After September 11 attacks, the normalization of relations between the United States and Iran started at the end of 2001. The Kazakh government tried to convince US oil pipeline projects to allow Iran access. In their view, the Iranian transit routes are directly on the Gulf, not only on the Gulf, but also on the markets in South Asia and the Asia-Pacific region. However, the dialogue and negotiation process between Kazakhstan and Iran is largely due to the negative impact of the United States (Kooalee, Ebrahimi and Mougouee, 2014).

The Iranian way is the cheapest and safest way to export but Kazakh oil was suspended due to US sanctions. They have also discussed the pipeline route from Kazakhstan to Iran via Turkmenistan with Daily pipeline capacity 1 million Crude oil barrels and the total length of the 1,600km needed is investment of $ 1.2 billion (Kooalee, Ebrahimi and Mougouee 2014).

But the project has been hampered by the U.S. opposition which is going to delay the commencement of this pipeline project. Apart from the United States, Russia still has a strategic nature geographically Proximity to Kazakhstan. Therefore, despite the fact that Iran has no relations with Kazakhstan, it cannot find a major place in energy efficiency in the economic arena. Kazakhstan's networks are controlled by Russia. In fact, Relations with Iran can not only harm the relationship, but it can also lead to increased American rapprochement and relationships with Russia.

Pipeline Politics

In the Post-Cold War Era, growing energy demand in Europe and Asia has turned the attention of regional and international powers towards the energy resources of Kazakhstan. The Increased demand of oil and gas today has reinforced the strategic importance of Kazakhstan. It is the world’s largest landlocked country which is located between two major powers Russia and China. Kazakhstan has abundant amount of energy resources but due to its location it is difficult for it to reach world energy markets. Since Kazakhstan is a landlocked country and lacks access to sea, it has to get dependent on two things, i.e. its pipelines and its neighbors to transport its hydrocarbons to the world market. Therefore the issue of transit pipeline selection acquired a lot of debates in case of Kazakhstan.

The sudden downfall of erstwhile Soviet Union led to an intense conflict over control of vast energy reserves particularly of oil and gas in Kazakhstan. The present game is not over political or territorial influence, but over the vast raw material deposits especially in Caspian Sea. Initially Russia had dominated the Central Asian region and their energy reserves. However, from the past two decades, new players have been emerged in this region to gain control over the energy reserves of this region. USA, EU, China, Iran and India along with Russia started activities in Kazakhstan to gain access for energy resources and as a result new pipelines have been built such as Pipeline towards east favoring Russia and China, westward expansion of pipeline for USA, southern route favoring Iran. Therefore there is an on-going pipeline politics going on to gain access to transport routes of Kazakhstan to control the energy reserves of the country.

Being a Post-Soviet state Kazakhstan remained solely dependent on Russian route for a long time. Later on, Kazakhstan started to diversify its routes to get less dependent on Russia and explore new routes to increase its energy independence. From the year 1997, the energy

politics became more complex with the entry of China in Kazakhstan's energy market. Several important events influenced and accelerated the pipeline politics in this phase. The involvement of China in energy sphere of Kazakhstan challenged the Russian presence in Kazakhstan. The proposal of construction of pipeline was agreed between China and Kazakhstan in 1997 which marked the involvement of China in Kazakhstan's energy sector. With the beginning of 21st century Kazakhstan became more close to China. The development of Kazakhstan-China Pipeline accelerated the energy relationship of both the countries (Kandiyoti 2008). The pipeline serves the interest of both the countries. On the one hand, China got the energy partner who can easily fulfill its energy demand with a direct energy route connecting China to Kazakhstan On the other hand, Kazakhstan got a chance to diversify its export route and reduce its dependence from Russia.

Also after 2000, on the one hand the war against Afghanistan made US more inclined to this region and Kazakhstan was seen as an alternative for oil to Middle East. On the other hand, Putin presidency became more active in shaping its relations with Kazakhstan. Besides this, the development of Kazakhstan Caspian Transport System (KCTS) was a major breakthrough for Kazakhstan to diversify its routes and connect to BTC pipeline (2005-2006). These events depict the ongoing pipeline politics in Kazakhstan where these major countries are competing to control the energy reserves and the transport routes of Kazakhstan. On one side, Kazakhstan using its energy reserves to gain a foothold in its region and fulfil the objectives of its Multi-vector foreign policy. It is gaining economic and political success through its energy resources which has become a weapon for Kazakhstan to bargain with its neighbours.

On the other side, many big powers like China and Russia want to dominate the pipeline routes of Kazakhstan to gain maximum from its resources and to use these routes to assert pressure on Kazakhstan to follow its dictates. Therefore with Multiple players getting involved, the pipeline politics is getting more complex. China has emerged as a major energy partner for Kazakhstan and its increasing presence in the region will increase the competition for gaining energy routes of Kazakhstan. Despite that, Russia will remain a major energy partner and transport route for Kazakhstan and continue to play an important role in determining its relations with other countries. Kazakhstan will face a more complex competition in choosing its energy supply routes in future.

Future and Proposed Developments

Kazakhstan has been working hard to gain more energy projects to build its economy in future. The country has been focusing on its energy resources such as oil and gas fields as a means to develop its economic potential in its region. The development of Kashagan oil field and other future plans need Kazakhstan's export potential to develop rapidly. To this end, Kazakhstan is trying to flourish its Caspian Sea transportation system, which is planned to build 830 km in the Caspian Sea and 600,000 barrels in Echo, a port in western Kazakhstan. Kulik built 760,000 barrels per day. The system will link the Baku, Azerbaijan, Baku port and Baku transport station. Baku - Tbilisi - Ceyhan oil pipeline will be shipped to Turkey.Besides, the Kazakhstan-Turkmenistan-Iran pipeline was proposed a few years ago, but the ongoing tension makes Iran inaccessible to the project within a short period of time.

Besides this, Kazakhstan's Tengiz oil field will see more expansion bin future under the control of TengizChevroil to gain progress for the company's growth. The Tengiz field of Kazakhstan is known to be one of the largest oil field in the world and this project will further increase its development. The production of oil will likely to start by 2022 but the major issue comes on the question of choosing oil route which is a quite difficult task for a country like Kazakhstan where major powers like China, Russia and west are competing to gain maximum control of the pipeline routes of the country. The Novorossiysk (Caspian Sea) (Russian route) has been used by Kazakhstan in current period to transport oil from Tengiz field. However, the Iranian route and the Baku-Tibilsi-Ceyhan route have been proposed as an alternative to the Russian route in Kazakhstan (ITE Oil and Gas, 2016).

As a nation which is Landlocked and cannot enter the sea, Kazakhstan requires a complete oil and gas pipeline system. However, the current pipeline system can no longer meet the needs of long-term transport of large quantities of hydrocarbon reserves in and out of Kazakhstan. We hope that the recently established Transitional Government will improve the management and development of the national pipeline system, promote the overall development of Kazakhstan's economy, and ultimately improve the welfare of citizens.

Chapter4

Role of Major Powers in Kazakhstan's Pipeline Politics

The geopolitics of energy has intensified in a great detail in the present world. The rising demand for Energy has become an international issue today. Energy and politics are inseparable and are responsible for changing the political equations between many countries (Gupta, 2016). Energy resource is a crucial factor in explaining the strength and weakness of a nation's security architecture and might be called the most subjective resource. It has turn out as the crucial weapon within the global economy and has increasingly been instrumental in designing the global politics and international relations between countries. Kazakhstan, largest land locked country, has known for its huge natural reserves such as oil, gas and uranium which started getting attention after the disintegration of Soviet Union from many powerful countries like China and US. In the present time, it is dealing with the geo-political influences of major powers and the fluctuation of international demand and price for oil.

After the dissolution of Soviet Union, the increasing demand for energy reserves such as oil and gas in Europe and Asia has turned the attention of major powers towards the energy resources (oil and gas) of Central Asian countries like Kazakhstan and Turkmenistan. The present game for controlling the energy resources of Kazakhstan has intensified the ***Pipeline Politics*** in the region where major powers are playing hard to gain maximum access to transport routes of Kazakhstan. Since Kazakhstan was a part of Soviet Russia It had dominated the energy profile of Kazakhstan and it was the only route for Kazakhstan to supply its oil and gas. However with time Kazakhstan developed its independent path and welcomed the new partners in its energy sector. The entry of China in the energy sector of Kazakhstan changed the geopolitical equations in the region. With increasing presence it has challenged the leverage of Russia in Kazakhstan. Along with Russia and China, new players have been emerged such as USA, EU, India and Iran which are trying to control the transport routes to gain maximum from Kazakhstan's energy reserves.

Pre 1997- Primacy of Russia in Kazakhstan

Since 1992 the Government of Kazakhstan has faced the question of how to improve its oil and gas resources. Kazakhstan faced a severe financial downfall in the 1990s since it was totally dependent on Soviet Russia before 1991 economically and politically. Therefore it

became the foremost objective of Kazakhstan to develop itself as an independent country (Cohen, 2006). Kazakhstan started trying to secure its independence from Russia by growing its national economy, and increasing focus on energy sector. But Russian companies have always been present in huge numbers. In 1995, Lukoil agreed to supply petrochemical plants to Pavlodar and Shymkent for Kazakhstan and Kumkol. For Kazakhstan, Russia is a major partner in the political and economic fields. Energy is politically and economically coherent and interrelated. For Russia the main element of foreign policy is cooperation between Russia and Kazakhstan's energy sector. The first stage of Kazakhstan is closely linked with Russia. Both countries share the common energy infrastructure created during the Soviet era in the economic field (Henriksen, 2013).

The Atyrau-Samara pipeline was the oldest and only way to transport oil from the Caspian Sea to Europe. The Central Asia Centre gas pipeline (CAC) has cooperated with Turkmenistan, Uzbekistan, Kazakhstan and Russia for more than 40 years. The new Caspian gas pipeline was put into use in 2001. Although Russia, Kazakhstan, Oman and eight companies belong to the Caspian Pipeline Consortium, Russia's share is very high. In Kazakhstan, only one export route (CAC) transports natural gas on the European side near Russia. However, due to its internal status in the center of the continent, Kazakhstan has to rely on neighboring countries to transport oil and natural gas. On the political front, the two countries participated in the Shanghai Cooperation Organization (SCO), the Eurasian Economic Community (EurAsEC) and the Collective Security Treaty Organization (CSTO) (Henriksen, 2013).

On the Cultural front both the countries are attached due to two reasons: Traditional and Historical roots which abide them together and make them feel interconnected to each other. Besides this, Kazakhstan remained dependent on Russia in energy sphere where Russia remained the soul route for Kazakhstan to export its oil and gas to world market. The major regions of its energy reserves remained unexplored before 1991 and after independence in 1990s the pipelines exported oil and gas through Russia. The Russian route had been started during Soviet era and remained essentially important in 1990s since other Routes couldn't develop during that time. As a result Kazakhstan relied heavily on Russia for its energy export and remained under Russian influence for a long time. Also during 1990s, the rail route for exports was more reliable in Kazakhstan (Kandiyoti, 2008). The rail routes become more expensive by 2000 (US information energy agency, 2012). Therefore Construction of

pipelines became more famous because they are less expensive and can outreach more regions and since 21st century they became major tool to diversify the energy routes.

Nevertheless, Kazakhstan started diversifying its pipeline routes and business to reduce its dependence on Russia. Since the early 1990s, Kazakhstan has been unable to provide funding or technology for the development of oil and natural gas resources. Kazakhstan's natural resources reserves like oil and gas has been forced to bid for foreign countries and companies of Western Europe, the United States and Canada. The largest international oil company (IOC) is a partner of Kazakhstan, for example, Italy's Agia (now ENI) and British Gas (currently BG Group) in the Karachaganak oilfield and Chevron's Tengiz oilfield. Some other companies also came such as Hurricane Hydrocarbons which is now PetroKazakhstan, which is a Canadian company in Kazakhstan operating since 1991 (Henriksen, 2013).

Post 1997- Road to Pipeline Politics

Kazakhstan is the largest landlocked country of the world. It doesn't have complete control over the utilization of their natural resources, as it is forced to ship their oil and gas via pipelines that run through other countries in order to reach the global market. The country which is controlling the pipeline also controls the energy it has, which is important for a country's economy. The struggle and competition for controlling these routes is now being waged between many countries including Russia, China, Iran and the US. Previously the energy supply used to happen via Russian route and through that Russia used to grab a huge transit fees and political leverage over Kazakhstan. But later on, with developing Multi vector foreign policy of Kazakhstan it started to diversify its route to decrease its dependence on only one route (Russian). Kazakhstan opened its energy sector for every country and started working with new companies from USA, Canada, Britain and China.

There are some major events that shaped and gave rise to pipeline politics in Kazakhstan. We can trace the origin of pipeline politics with these events which influenced the energy sector of Kazakhstan. Several important events accelerated the pipeline politics and among them the most prominent one is involvement of China in energy sphere of Kazakhstan in 1997. It came as a challenge to Russian influence and dominance in Kazakhstan. The proposal of construction of pipeline was agreed between China and Kazakhstan in 1997 which marked the involvement of China in Kazakhstan's energy sector (Fishelson 2007). The construction of pipeline completed in 2005. After 2000, on the one hand the war against Afghanistan made

US more interested in this region and Kazakhstan was seen as an alternative for oil and to Middle East. As a result US started checking over Kazakhstan due to security and energy reasons.

On the other hand, with Putin's presidency from 2000 Russia became more active in shaping its relationship with Kazakhstan. During 1990s Russia was busy improving its relationship with West and regaining its economy. However, by 2000 it became keen towards its area of influence i.e. Central Asia. Being its immediate neighbor Kazakhstan has been much closer to Russia and both the countries started reemphasizing on their relationship in energy sector (Naumkin, 2003). Besides this, the development of Kazakhstan Caspian Transport System (KCTS) was a major breakthrough for Kazakhstan to diversify its routes and connect BTC pipeline (2005-2006) (Henriksen, 2013). This system has connected Kazakhstan to west and helped it to reduce its dependence on Russia. It has further intensified the pipeline politics of the country. Other partners like EU, Iran and India also started building their relationship with Kazakhstan to gain as much as from its energy reserves.

These events which are mentioned above waged energy politics in Kazakhstan where each partner wants to control the pipeline route on the expense of other to earn maximum gains from Kazakhstan Whereas Kazakhstan has also started using energy as a tool to grab maximum advantage from its partners. It truly welcomed the inflow of foreign companies to merge in its energy sector which is one such important goal of Kazakhstan's Multi Vector foreign policy. Through energy Kazakhstan is gaining economic and political success which is boosting its confidence in International level. It is using its resources to demand and bargain with its neighbors. Therefore with multiple players involving the pipeline politics has become more complex now. In the present time it is facing difficult competition in choosing the transport route for its energy resources.

Role of China (The Game Changer)

The former Soviet Union's Central Asian space has become an increasingly important area for the realization of Beijing's foreign policy and ambitious strategy. In other words, internal security and energy policies are two important issues for China. In 1993, China became the net importer for the first time (US information energy agency, 2015). Beijing is the backbone of strategic security in Central Asia. In Central Asia, especially Kazakhstan, oil production and oil production, construction, mining, oil and gas pipelines directly provide a very

pleasant place for China. Today, the issue of energy supply security is gradually becoming a core issue on the economic and political agendas of China and Kazakhstan, as well as other issues such as immigration, ideological extremism and trade. Beijing's strategy is that China's state-owned oil companies (NOCs), especially China National Petroleum Corporation (CNPC), are independent to a certain extent, and they are pioneers in the field of western hot oil boozing, and have established corporate contacts with Kazakh colleagues. Over time, they can participate in more and more attractive oil games (Alvarez, 2016).

TheFirstphase (**1997-2003):** The first level of the Kazakhstan-China's energy relationship, which was launched in 1997 and Chinese companies were considered newcomers whereas the major oil and gas fields were controlled by the either Russian or western companies (for example, the Kashagan field and Tengiz field). The major infrastructure for transportation i.e. Caspian Pipeline Consortium was administered by Russia, North America and Europe. Therefore for China it wasn't easy to make a strong foothold in Kazakhstan in its initial phase. It started focusing on medium and marginal oil fields to build its energy cooperation with Kazakhstan. In Kazakhstan, the Almaty government has moved to Astana (1997), the possible outflow of capital of China, the country's energy sector as opposed to the dominant influence of Russia. As a result of these common interests between the two sides in June 1997, CNPC (China National Petroleum Corporation) has purchased 60.3 percent of the rights to explore and develop oil companies as well as other oil fields (AktobeMunaiGaz) (Alvarex, 2016).

A few months later, the Kazakh firms and CNPC (China National Petroleum Corporation) with other companies agreed to build a mid-stream company called Kazakhstan-China Pipeline with the route from oil fields of Aktobe to Atyrau and promised to touch West-East pipeline in 2002 (Alvarez, 2016). In this phase for the first time in Beijing, including the grand strategy of expansion within the framework of Kazakhstan's support of the Chinese company has limited diplomatic and political means. Initially, there was the beginning of bilateral relations despite energy, financial, migration, trade and border security, Xinjiang separatists were (and continue to be) the major agenda of the Kazakhstan-China relations. These agenda dominated their relations in early phase and energy took some time to gain relevance in their partnership. It was until 1997, they didn't share energy partnership and it was only in September 1997 when CPNC involved in the country they signed petroleum agreement. It is important to mention that it was CNPC which made Chinese projection of oil and gas possible in Kazakhstan. This phase in general and this year 1997 in particular showed

the beginning of pipeline politics and a coming challenge for Russian interest in Kazakhstan. The second phase shows more interaction between both the countries where the partnership became stronger with the increasing influence of Chinese companies in Kazakh energy sector.

TheSecondPhase(2004-2009): In the second period CPNC marked a foothold in Kazakhstan's energy sector and it took this as a means to get close to other Central Asian countries also. In 2005, PetroChina and CNPC Exploration and Development Company hired the Canadian firm PetroKaz, Kazakhstan's KazMunaiGas and American Tenghizchevroil after the country's third-largest legal player (Blank, 2015). In addition, in December 2005, CNPC Xinjiang Uygur Autonomous Region, 962 km pipeline opened due to which Chinese imports capable of delivering up to 15 percent. Therefore China gradually increasing its leverage in energy sector of Kazakhstan. Since 2008, CNPC has started negotiations to build a Central Asia-Central Asia pipeline that connects these hydrocarbon-rich areas with the West-West II pipeline and links it to Hong Kong and Shanghai from the Caspian Sea coast and Turkmenistan. In December 2009, the heads of state of China, Kazakhstan, Uzbekistan and Turkmenistan started a $20 billion investment project to transport 40 billion cubic meters of natural gas (Alvarez, 2016).

The interests of both china and Kazakhstan have been quite visible in their energy partnership. For China Kazakhstan became the zone of satisfaction due to its natural resources. Since China has huge energy demands it goes well with a country like Kazakhstan who has huge amount of oil and gas to meet rising energy demand of China. For Kazakhstan China is an alternative supply route connects directly to Kazakhstan without any transit state. Besides this, with emerging partnership with China, Kazakhstan has been able to reduce its dependence on Russia and started diversifying its routes (Collins, 2008). For Kazakhstan and other Central Asian governments, a gas pipeline to China is a cornerstone of the strategy and to diversify its route from Russia. This new project was one way for access to foreign markets and, consequently, increased geopolitical independence of countries. The seldom approach via CNPC soon turned into a strategy by China to strong its position in Kazakhstan. In fact, the major issues related to their joint sectors became important part of discussions in the meetings of Shanghai Cooperation Organization (SCO) (Jiang, 2008).

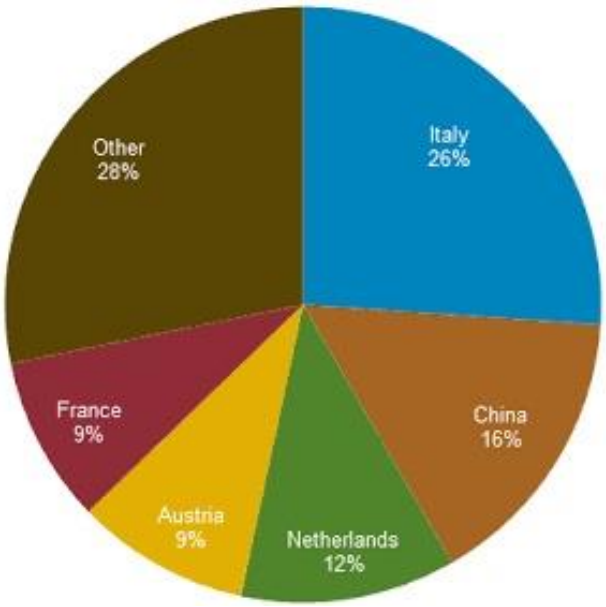
In 2005 the leaders of the two countries started the "strategic partnership" with the decision on the improvement of bilateral relations. According to official data, this initiative was the

main cause between the two countries. However, according to the same document, the Chinese-Kazakh cooperation has also been affected by internal security issues mainly caused by the common interest in fighting terrorism and separatism. This stage saw a close and strong partnership between the China and Kazakhstan. The CNPC came with more assertive and solid strategies to enter big oil fields and started merging its projects with Kazakhstan. Therefore it started playing a major role in pipeline politics in Kazakhstan and giving a tough competition to Russia and other actors which are in geopolitics of this region to gain maximum from energy reserves of Kazakhstan (Alvarez, 2016).

TheThirdphase(2009-2015): The third and current stage of Chinese expansion in the western part of China since the beginning of the 2008 financial crisis: the three major Chinese oil companies will coincide with a new international strategy. China's energy initiatives of Kazakhstan can be seen in the two main features: 1) consolidation by CNPC through the introduction of long-term financial transactions in the balance of power by the government and 2) foreign enterprises in China's political leadership has decided to provide resources capitalized (Alvarez, 2016). The financial crisis of 2008 set the new stage of agreement. It witnessed huge economic losses in several countries whereas China provided multibillion dollar loans to countries in exchange of inflow of oil. Therefore both China and Countries like Kazakhstan benefitted from this strategy. During the crisis in Kazakhstan, KazMunayGas has received approximately $ 3.3 billion from the Chinese Export and Import Bank. The company has the right to study and develop 35 natural gas and oil fields, including one of the largest in the country, Karamkas and Zhetybai (Jiang, Feng and Wang, 2012).

In addition, CNPC has strengthened its dominant position in the mining industry in Kazakhstan. Astana and Beijing have agreed to jointly develop one of the region's major cities, the Urikhtau gas field, to supply the Xinjiang gas pipeline. After these initiatives, the former Soviet republic became the largest shareholder of large energy companies in China. In the period from 2009 to 2010, Kazakhstan together with China and the Russian Federation received 39 billion dollars from Chinese state-owned banks. The Dollars or the Chinese Development Bank and China's Export Import Bank have the largest share of international investment. In other words, the oil and gas flagship of the People's Republic of Kazakhstan has created a very close and complicated network of hydrocarbons, subsidiary companies, pipelines and international joint ventures through the northern and eastern borders of our country (Alvarez, 2016).The pie chart 6 represents the liquid fuels exports by Kazakhstan in 2011 which has been shown by destination.

Pie Chart 6: Kazakhstan's liquid fuels exports by destination, 2011



Sources: US information energy agency, 2014

The Construction of the West-East III pipeline, connecting Xinjiang to Khorgos natural gas fields in Fujian province in Fujian province started in October 2012. The country will be able to transport hydrocarbons directly to foreign direct investment. From geopolitical point of view this large network connects to China-Central Asia pipeline; About 30 billion cubic feet a year, of which 25 billion will be from Kazakhstan, Turkmenistan and Uzbekistan, and the remaining 5 billion will be in the Xinjiang Uygur Autonomous Region. During Chinese President Xi Jinping's visit to Kazakhstan in September 2013, the China National Petroleum Corporation (CNPC) signed contracts worth about $ 30 billion for the acquisition of 8.3 percent of Kashagan, the largest oil tanker in the world besides Middle East (Alvarez, 2016).

Role of Russia

Energy lies at the heart of relations between Russia and Kazakhstan. It has always played important part in the relations between Russia and Kazakhstan since Soviet times when Kazakhstan was a part of Russia and solely dependent on it politically and economically. Russia has always seen Kazakhstan as a major part of its national interest and influence. It is one of its goals to hold strongly its position in Kazakhstan for which Energy is very important. Russia has always tried to control its production and transport of energy due to

fear of getting it close to other countries like China and US. Two aspects are particularly important: Oil and gas transport through Russia and joint development of both countries in Caspian deposit. In 2007, Kazakhstan supplied more than 60 million tons of oil through Russia and made it the most important transit country of Kazakhstan. This transit will be carried out as part of the long-term transit agreement signed in 2002 between the two countries.

Theearlyphase(1990-1999): The increased demand of oil and gas in the present time has reinforced the importance of Kazakhstan and many countries have stood for strong partnership with Kazakhstan to gain access to oil and gas. Kazakhstan was dependent on Russia before its independence. The pipeline named Atyrau-Samara was built during Soviet times in 1970s and connected Kazakhstan's oil production with Russian pipeline systems which is controlled by Transneft (International energy agency, 2010). This pipeline and Russian route was Kazakhstan's main export route in the 1990s before Caspian Pipeline Consortium (US information energy agency, 2012). The Atyrau-Samara pipeline shows the important link between Russia and Kazakhstan which is majorly dominated by Russia and it can set the transit price for Kazak oil exported through the route. This makes Kazakhstan Vulnerable. Nevertheless this route is important for Kazakhstan since a large chunk of Kazakh oil exported via Russia. Since during 1990s Kazakhstan's financial situation was not good and it couldn't manage its energy sector independently which made it dependent on Russia.

Thesecondphase(2000-2015): The situation in Kazakhstan has become more diversified from the full dependence on Russian export routes in the 1990s for the development of several pipelines and export routes in 2012. The development of new major export routes took place mainly in the 2000s, with the Caspian pipeline consortium taking place for the first time in 2001. Kazakhstan has shifted from dependence on Russian dependence to reducing the risk of using energy weapons almost by a monopoly trade partner. It is very important for Kazakhstan, taking into account the internal situation and asymmetric energy relations with Russia and China. However, Kazakhstan's efforts to diversify export routes have not been fully implemented. Transportation through Russia is still an important export route of oil and gas and in 2010 it was 75percent. This situation can be ensured at the end of the second phase of the CPC pipeline in 2015. It seems that that Kazakhstan has chosen Russia as a priority export route.

The competition for Russia started in its area of influence with the entry of China in 1997. Russia became alert of emerging partnership of Kazakhstan with other countries like China and US. The changes and more assertiveness in Russian approach towards Kazakhstan can be traced back to the beginning of Putin era from 2000 when he became the president of Russia. Despite 1990s during Yeltsin era when Russia was more inclined towards building relationship with west and has a distant and more uncertain relationship with Kazakhstan, by 2000 Russia became more interested in shaping its relationship with its area of influence i.e. CIS (Naumkin, 2003). Kazakhstan being the immediate neighbour of Russia share close relations with Russia and the shifting dynamics of their relationship can be seen with the rise of Putin presidency from 2000. Since 1999December Kazakhstan became new priority of Russia (Sultanov and Muzaparova, 2003). Russia started engaging role with a realization that energy playing a big role in present world politics.

It is important to mention that Russia never left Kazakhstan but it became more active by 2000 (Laurelle, 2010). Putin prioritized Russia-Kazakhstan relations with new energy and through new initiatives where energy played a big role (Naumkin 2003). The oil and gas sector always hit the priority list of Russia's foreign policy towards Kazakhstan. The main focus of Russia is to control the transit routes for energy and lessen its dependence on other transit countries and routes (oldberg, 2011). The control of transport routes gives both economic gains of revenue and power to put political and economic pressure on Kazakhstan. However, Kazakhstan also dependent on Russia since major chunk of its natural reserves exported through Russian route. It is the major route for Kazakhstan and will remain so. Energy has been used as a major tool in the Multi vector foreign policy of Kazakhstan. It is a way to gain political and economic development in the region for Kazakhstan.

The main direction of economic cooperation is the fuel and energy sector. The export of basic oils to the foreign markets of Kazakhstan is carried out through the territory of Russia. Oil transit is based on a long-term intergovernmental agreement which entered into force on 7 June 2002. The transit of Kazakhstan's oil through the territory of Russia is carried out within the framework of the Caspian Pipeline Consortium (CPC). The governments of Russia and Kazakhstan own 50 percent of CPC and the remaining 50 percent belong to crude producers that sponsor the first phase of the project. Natural gas cooperation took place within the long-term intergovernmental agreement of November 28, 2001. Since 2002, the plant has been supplying Orenburg natural gas processing to the KazRosGas (a joint venture of Gazprom and KazMunayGas) in the Karachaganak gas field. Since 2000, the power systems in Russia

and Kazakhstan have been operating in parallel. The interconnection of electricity and natural coal is performed (Henriksen 2013)..

The active development of Kazakhstan's relations with NATO and Beijing made Russia worried of their future partnership. However, during Color revolutions in Georgia, Ukraine and Kyrgyzstan, Kazakhstan sided with Russia to preserve the unity of CIS. The role played by Shanghai Cooperation Organization is also important in building Russia-Kazakhstan relationship on one hand, and also the cause for Russia's worry due to rising closeness between Astana and Beijing. Russia is aware of the joint ventures projects of China and Kazakhstan which can provide an alternative route to Kazakh to move away from Russia. Kazakhstan with its huge reserves can be a competition to Russia in future through supplying the hydrocarbons to other countries. According to Russian experts, none of the political ambitions in Kazakhstan have been economically viable especially the potential to compete with Russia when it comes to energy relations with China.

In a nutshell, Kazakhstan is an important partner for Russia due to its huge natural resources like oil, gas and uranium which are supplied through Russian route whereas for Kazakhstan Russia is an important player which provide economic support to Kazakhstan through investment and various renowned companies. Gazprom is planning to buy shares of the gas transportation system market release. The Caspian Pipeline Consortium which is controlled by Russia is the major route for Kazakhstan accounts for 39.6 percent of Kazakh exports (Henriksen, 2013). Still, In order to match its Multi-vector foreign policy Kazakhstan has developed a number of alternative routes such as Kazakhstan-China pipeline and Baku-Tbilisi-Ceyhan Pipeline. Also Kazakhstan and Russia have experienced some tensions over energy reserves in recent times. In 2013, Kazakhstan restricted Russia's gasoline sales and made them limited. It also took strict measures in oil dealings which has concerned Moscow. Kazakhstan preference of supplying oil to Chinese refineries instead of Russia is a matter of concern for Russia. Besides this, the demand of high prices for gas from Russia also a matter of worry for Russia. Kazakhstan has actually started using energy as a tool to bargain from Russia.

Nevertheless, Russia and Kazakhstan energy trade is very high. Russia considers Kazakhstan as its very close ally and energy partner. The relationship will be affected by increasing pipeline politics in the region and interference of many other countries of the region. Despite that Russia considers Kazakhstan as an important source of hydrocarbons which it never

wanted to lose at any cost. There is a dependency of import and export between two countries where import from Russia in Kazakhstan is much larger than the export from Kazakhstan to Russia. They share a dynamic relationship which is affected by the geopolitics of their region, emerging globalization with rising price of crude oil in the market and still bear some features of post colonialism where we can witness the mutual dependency in their partnership.

Role of other Countries (US, EU, Iran and India)

US: After the collapse of Soviet Union when Kazakhstan became independent it made its own path towards its Multi-vector foreign policy. It started welcoming the companies from different countries like USA and Canada. In 1993, US companies Chevron ExxonMobil came into Kazakhstan energy market. They become the major companies to invest in the oil sector of newly independent Kazakhstan who was financially very week during its early stage of independence. Chevron has signed a 40-year contract for Tengiz field development, and since then, Chevron has invested tens of billions of dollars in oil and gas production in Kazakhstan, creating thousands of jobs and expertise of world-class technology and country's energy sector. Chevron to invest $ 251 million in Kazakhstan to finance efficient projects in Kazakhstan Signed a Memorandum of Understanding on the use of a US $ refinancing fund. ExxonMobil is actively involved in exploration, production, production and transportation of oil and gas, while the total investment is over $ 20.2 billion (Office of Energy affairs, 2012).

For a longer time in 1990s Kazakhstan remained much dependent on Russia and took time in building its partnership with the world. In case of US, with security and Terrorist issues coming into scene, US interest started in Central Asia. In Kazakhstan, Security and Energy reserves are two main concerns which grew exponentially after 9/11 attacks. Since 2000s US started engaging more with Kazakhstan and always appreciated routes which by pass Russia (northern route). The US Department of Energy and Kazakhstan has been working with the United States and Kazakhstan in partnership with energy. Partnership was officially established in 2001 on nuclear security and nuclear energy issues; Oil and gas; Renewable energy and energy efficiency; Created. Further work is aimed at energy security and energy cooperation. There are two projects which have always been supported by US i.e. Baku-Tbilisi-Ceyhan pipeline and Trans-Caspian Pipeline which connect Kazakhstan to west and by pass Russia (Office of Energy affairs, 2012).

The North Caspian Production Sharing Agreement (NCSPSA) is the largest direct foreign investment project in Kazakhstan. It provides local employment opportunities and business opportunities. The first phase of the Kashagan project was approximately $55 billion. It has been 13.3 billion U.S. dollars since 2004. Taking into account local goods, the content of engineering and U.S. dollar services, and the shareholder's income including ExxonMobil, which comes from the multi-billion dollar U.S. government, will be produced for decades. The Chevron and ExxonMobil, participating in the Caspian Pipeline Consortium (CPC), contributed to the development of Kazakhstani economy. In 2017, the Caspian Pipeline Consortium has completed a portion of the expansion project in Kazakhstan and increased its total capacity to 1.4 million barrels per day. The pipeline system is one of the most attractive forms of Kazakhstani oil export in the Tengiz and Kashagan oil fields (U.S. Department of State, 2018).

European Union (EU)

Among all the Central Asian Republics Kazakhstan is the most important oil partner for EU. The EU is one of the most important trading partners of Kazakhstan and accounts for about 50percent of Kazakhstan's foreign direct investment, which is approximately US$100 billion. In 2013, the bilateral trade volume reached 31 billion U.S. dollars which accounts for 32.8 percent of Kazakhstan's total foreign trade: $24 billion. Kazakhstan's exports to the euro (for example, oil) are estimated at 5 billion U.S. dollars. The EU imports 5-6 percent of oil consumption and 21 percent of uranium from Kazakhstan (Umbach and Raszewski, 2016). The relationship accelerated with the signing of Peaceful and Cooperation Agreement (PCA) between both the partners in 1999 which began their political dialogue in bilateral level. The regional economic and strategic importance of Kazakhstan for the EU is mostly related to its geographical location: GDP of Kazakhstan exceeds the GDP of four Central Asian states. Its business environment is also good in Central Asia: in the World Bank's Doing Business rating, Kazakhstan has grown twelve positions by 2016 from 53 to 42 in 2015 (Umbach and Raszewski, 2016).

Kazakhstan also plays an important role in the new transcontinental transport corridor, such as the Western Europe-Western China transport corridor, which reduces half the delivery time and EU's Europe-Caucasus-Central Asia Transport Corridor of the European Union (TRACECA). For Kazakhstan, the EU has been viewed as a model of search for its regional energy policy with its unique integration experience increasing Regional Energy Cooperation

and Integration (Umbach and Raszewski 2016). In this regard, the EU and Kazakhstan in January 2015 agreed to adopt a new initiative "Extended Partnership and Cooperation Agreement". The President of Kazakhstan, Nursultan Nazarbayev, believes that European companies are more interested in energy cooperation, which is actively involved in the development of the largest Caspian offshore Kashagan field and supports efforts of Kazakhstan to have a new "green policy" by expanding renewable energy sources of energy.

However the 2014 Ukrainian crisis has impacted the Kazakhstan relations with EU. It has given serious repercussions on the area energy and security. In the EU, it has stepped up its discussion of new supply options for diversification of EU energy imports. These options include U.S. shale gas via the Trans-Anatolian gas pipeline, Azerbaijan and other Caspian natural gas, and pipelines across the Adriatic Sea, as well as gas from the Eastern Mediterranean, Kurdistan or Iran. After the EU and Turkmenistan bilateral relations and the three countries of Turkey, Azerbaijan and Turkmenistan, the point is can Kazakhstan adapt to this situation, has strengthened its energy cooperation since 2014, and is planning to supply Turkmen gas in 2019? 15 Will Kazakhstan be able to increase its oil export capacity with the TANAP-TAP gas export network and/or the country's Baku-Tbilisi-Ceyhan oil pipeline? On the other side, On November 30, 2015, Kazakhstan joined as the 162th member of the World Trade Organization which might increase EU- Kazakhstan energy partnership (Umbach and Raszewski, 2016).

Iran: In the early 1990s, Iran had a geopolitical situation. It is important because the U.S. has been trying to isolate it on a regular basis. Iran has sought the right ways to fight Against the US Policy and expanding cooperation with its neighbors and other Muslim countries. Kazakhstan's continental form, lack of open access gave Iran's opportunities in the field of water and energy production. Its transit routes and markets will open new opportunities for foreign investments. Many big powers started competing for energy reserves of the country which is one of the main factors limiting Iran's capabilities and comprehensive development of relations with these countries. The role of Russia and especially US always affected the relations of Iran and Kazakhstan with each other. On the one hand, due to enormous influence of Russia in Central Asia in general and Kazakhstan in particular made role of other countries including Iran very minimal. On the other hand, after Cold war due to restrictions made by US it became difficult for Iran to enhance its role internationally (Henriksen, 2013).

The partnership started with the visit of Kazakh President to Iran in 1992 which turned out to be a major visit for both the countries (Azizi, 2016). The southern route is intended to cross the Iranian border. According to high securities, the Iranian rout is quite attractive since it has the two major factors firstly, it can reduce investment costs and the south orientation is economic and more reliable as compared to other routes. This route can transport energy resources from the Central Asia, Caspian sea region and the Caucasus across the Persian Gulf and the Arabian Sea to the global market. This route can transmit natural gas from Central Asia to Europe via Turkey. According to some experts, because of its different geopolitical and geographical features, Iran can be the most desirable way to transport energy in the Caspian Sea, especially in the West. Taking this idea into consideration, some projects around Iran have been discussed as the main focus of energy transportation. However, external pressure on Iran, especially the United States' opposition to any plans to increase the weight of neighboring countries, is a strong ban (Azizi, 2016).

However, the best example of this issue can be seen in joint projects with Iran and Kazakhstan. Kazakhstan - Turkmenistan –Iran pipeline is one of the projects that Iran considers to transport energy resources in the Caspian region. This pipeline can transport crude oil from Kazakhstan and Turkmenistan to the international market via Iran's Hargh islands in the Persian Gulf. All conditions for the construction of the pipeline have been created, but the United States continues to stand in any way for any project that has relations with Iran or in favor of Iran. In this case, Washington indirectly expressed Iran's plan and supported BTC. These incidence shows that international disparities are directly linked to Iran and the United States, which can have a negative impact on energy cooperation in the Caspian region. Since 2010, Western countries have introduced a new set of sanctions against Iran which will further aggravate the negative trend (Azizi, 2016).

This new trend is observed in all sectors of the economy associated with the energy sector. Cooperation with Iran and other oil countries in the Caspian Sea like Kazkahstan is still limited by the signing of consolidated "Swamp" contracts in the oil sector. In these relations, Iran imports crude oil from neighboring countries (Kazakhstan) satisfying the demand for oil in the northern regions and replacing its customers with the Persian Gulf. As part of this project, crude oil is supplied from the Iranian port Neka, in the north of Iran, to tanks, and then to the Neka River, to reach oil refineries in the northern part of the country Iran. Time and again, Iran has tried to normalize its relationship with outside countries particularly US. After the end of December 2001, there was some sort of normalization in US-Iran

relationship. Kazakhstan's government had tried to convince US to include Iran in pipeline projects since the Iranian route is quite cheap (Azizi, 2016).

If things go well in future Iranian route can prove to be a beneficial and sufficient route for Kazakhstan. The route not only connects Gulf but South Asian markets and Asia-Pacific region also which will be beneficial for Kazakhstan. The routes have been discussed frequently such as route from Kazakhstan to Iran via Turkmenistan with a daily capacity of 1million crude oil barrels and length of 1600 km. But unfortunately the project has been stopped by the opposition from US which will create further problems for the project in future. Besides US opposition there is Russia also which has huge influence over Kazakhstan and can create hurdles for Iran pipeline projects with Kazakhstan. The pipeline politics has made things complex for every country to control the routes through their own conditions. Iran, despite its ambitions, has not been successful in gaining a major partnership with Kazakhstan in economic sector (Azizi, 2016).

India: India and Kazakhstan share historical relations which can trace back to several centuries ago. Formally the relations developed with the visit of PM Nehru at Almaty in 1955. During Soviet time the relations remained connected via Russia since Kazakhstan was a part of Soviet Russia. After 1991, the bilateral relations started between both the countries with the visit of PM Narsimha Rao in 1993. The Kazakh President Nazarbayev also visited India in 1992, 1993, 1996, 2002 and 2009 and developed a strong relationship with India. The visit of PM Vajpayee and Manmohan Singh in 2002 and 2011to Kazakhstan further strengthened the ties. The inter-Governmental Commission (IGC) was introduced in 1993 and became the important mechanism for strengthening the bilateral ties of Indo-Kazakh relations. It includes the Ministry of Energy from Kazakh sides and Ministry of Petroleum and Natural Gas from Indian sides with Co-chairs and ministry (Embassy of India, 2015).

India's demand of energy from Central Asia is an old as well as modern goal. Kazakhstan being the hub of hydrocarbons such as oil, gas and uranium which always attracted India and made Indian approach strong towards Kazakhstan. After years of negotiations, Indian company ONGC Videsh (OVL) got stake in oil field owned by PetroKazakhstan in 2005. However, later on this deal got in favor of China. Despite this blunder, India tried to woo Kazakhstan and invited Nazarbayev in 2009 as India's Republic Day Chief Guest and he promised to give a deal to India in 2013 and 8.4 percent stake in Kashagan fields. It is visible and According to some experts Nazarbayev played a geopolitical game between India and

China. It has been seen that on various occasions he back out from the deals and projects that he promised to India. During the 12th IGC meeting which was held in Delhi energy was one of the major issue and objective for both the countries. Kazakhstan has been agreed to export 5000 tones of uranium to India in 2015-2019 (Stobdan, 2015).

Despite delays and problems in deals, India cannot lose or ignore its partnership with Kazakhstan since it has huge amount of oil and other hydro carbons which are demanded by India. Since the oil reserves of Kazakhstan increasing from 30 billion barrels to 110 billion barrels the importance of the country has been increasing day by day specially among the countries like China and India (Stobdan, 2015). India demands huge amount of energy and Kazakhstan can be a good partner for that. There is a competition between China and India where China has a strong hand and direct route to Kazakhstan. For India the problem is to getting energy to India. Unlike china, it is difficult for India to find and rely on a route which can be sufficient enough to export energy without any difficulties. With the emerging pipeline politics it is important for India to search new means and ways to get a foothold in Kazakhstan's energy sector.

Kazakhstan's Stand and Interest

After cold war and disintegration of Soviet union, Kazakhstan became the sole owner of its energy reserves. Though it remained dependent on Russia for a longer time but gradually it started developing its own independent path to have a foothold in its region. Being an energy rich country Kazakhstan started getting attention from many countries like China, US from mid 1990s. Despite the geopolitical game played by competitors in Kazakhstan for gaining from its energy reserves, Kazakhstan has also setup its goals and objectives in order to fulfill its national interest through energy sector. It has started using energy as an instrument of its **Multi-vectorforeignpolicy**. Kazakhstan on the one hand, started getting rid of Russian dominance through diversifying its routes by gaining partnership with China since 1997. On the other hand, it has started using energy to bargain from major powers to follow its dictates. Such as in 2013 it demanded more prices from Russia for natural gas which resulted into some strain in their relations (Henriksen, 2013).

For Kazakhstan it is relevant to build partnership with China to increase its economic gains. It is important not to lose energy tie with such a potential business partner like China due to presence of Communist party there. Being placed between two major powers Kazakhstan has

chosen the path of flexibility and multi vector approach to gain maximum from its partners to fulfill its national interest and autonomy. Though the asymmetrical relationship will remain there but Kazakhstan through its multi-vector approach will try to woo and gain economic deals from its major partners. It is the goal to use all the energy routes sufficiently so that not only benefit the transit and receiving countries but also Kazakhstan which is the host country. Therefore, it is visible that policy of pragmatism is a major part of Kazakh's Multi-Vector foreign policy approach. Kazakhstan's stand is quite visible which shows that it must develop good relations with all the important foreign countries and couldn't afford sacrificing one for another.

The idea of pragmatism and multi-vector approach of Kazakhstan can be traced from the 1992 strategy of President Nazarbayev where he gave importance to develop close relationship with states of Commonwealth of Independent States (CIS), Europe, Russia, Asia and US. The strategy of balancing the major powers and ties with them is very crucial for a small country like Kazakhstan so that it won't be dominated by one power in future. It is very crucial for a landlocked country like Kazakhstan which is placed between Russia and China and cannot ignore anyone of them. It has to maintain its autonomy by balancing these powers to avert dominance by them in future. The ongoing pipeline politics is also the result of building Kazakhstan's partnership with so many countries through which it is diversifying its routes and gaining more and more transport routes to reach the Asian and European markets.

Therefore Kazakhstan's stand on energy sector is much clear where it is using its multi-vector approach and increasing ties with major powers and transporting its hydrocarbons via northern, eastern, western and southern routes. The ongoing pipeline politics between major powers is a live example of emerging competition and demand for Kazakhstan's energy resources and hydrocarbons. Kazakhstan is planning and playing its own game to mark a foothold in its region and bargain as much as it can to fulfill its national interest through energy sector. It is an example that despite being pressurized on several occasions Kazakhstan has used its energy sector as a means to build up ties with many countries like China, Russia, US, EU. It is an emerging player in the pipeline politics which will became more intensified and complex in coming future.

Strategic and Geopolitical Implications of Pipeline Politics

The Central Asian region had been known for being the battle ground for great powers in 18th and 19th century. The previous game was regarding the territorial and political expansion where countries were fighting for land and political gains. The present game is not regarding the political and territorial control but it is about the competition for huge energy reserves of this region (Gupta, 2016). As it is mentioned above and in previous chapters, Kazakhstan came into limelight after the dissolution of Soviet Russia. The energy war started among many countries to control the transport routes and access maximum reserves of Kazakhstan. The advent of this competition has intensified the pipeline politics in Kazakhstan where every country trying to gain maximum control of the export routes to gain maximum from it. Kazakhstan being a landlocked country can't ignore its neighbors due to the role played by them in supply of its energy resources. It is playing its own game where on one side it is maintain its relationship with Russia on the other side it is diversifying its routes to China and West to reduce its dependency on Russia. Kazakhstan has taking advantage of this pipeline politics through exerting pressure on its neighbors several times to follow its diktats.

With the entry of china in Kazakhstan in 1997 made Russia alert of its coming competition in its area of influence. Kazakhstan has what China wants i.e. huge chunk of energy reserves therefore Chinese interest in Kazakhstan will grow more in future. They satisfy each other's goal where China provides energy market for Kazakhstan and Kazakhstan fulfills the energy thirst of China. On the other side, with the beginning of Putin era in Russia from 2000s it became one of the most important goals of Russia to regain its lost leverage in Central Asian states including Kazakhstan. Therefore Moscow adopted the policy of bilateral rapprochements with Kazakhstan in all the crucial matters including energy. Russia has the advantage where it can talk and build its relationship via Eurasian Economic Union and Shanghai Cooperation Organization (SCO). In case of china, it is a crucial part of SCO where it can build and discuss future projects related to energy with Kazakhstan and also joint ventures with Russia and Kazakhstan.

Hitherto the interaction of both the major powers and neighbors have been cooperative than competitive in most of the events. They have similar interests in the region where both wanted to balance the unilateral actions of US which can affect them in future. However, these two major partners of Kazakhstan or neighbors of Kazakhstan give competition to each other in present world. There have been developed serious repercussions and tensions due to

emerging pipeline politics in the region. The major tensions such as involvement of Chinese companies and huge investments which has attracted Kazakhstan and other Central Asian countries also which has reduced the role and leverage of Russia and giving it tough competition in its area of influence, the rising success of Kazakhstan-China pipeline is also an area of major concern for Russia where both the countries are getting closer and getting benefit out of it and lastly, the repercussions of Chinese influence over Kazakhstan and other Central Asian countries made Russia insecure and dissatisfied. Russia is aware of the fact that Kazakhstan has alternative routes and through its policy of pragmatism it is benefitting from all the sides.

In case of China, in order to increase and maintain its interest in Kazakhstan China needs to make a balance and interaction between both the countries by fulfilling its interests through Kazakhstan and also taking care of interests of Russia. It is important to mention that getting huge chunk of hydrocarbons from Kazakhstan is not the only economic interest of China from Kazakhstan but also to improve the conditions in Xinjiang through building up multi-billion dollar energy related projects which will obviously have positive repercussions. It is one of the objectives to curb the problems in western provinces of China. Therefore the bilateral ties in energy sector have been fruitful for diplomatic and geopolitical relations for both the countries. Nevertheless, the pipeline politics going to be more complex in coming future where Russia and China may confront each other for controlling pipeline routes and leverage over this region.

Besides these two influencing neighbors of Kazakhstan there are partners also which have marked or will mark their foothold in Kazakhstan's energy sector such as US, Iran, India and EU. These countries are playing hard to give tough competition to these powers in energy sector of Kazakhstan by entering through energy sector companies or joint ventures in Kazakhstan. The competition for gaining more and more access to energy routes has been intensified more in Kazakhstan especially with the development of Kazakhstan-China pipeline. While on the other side Kazakhstan is also using its energy leverage as a part of its Multi-vector foreign policy and bargaining with its neighbours. The emerging geopolitics and pipeline politics of the region has been shaping the international relations in the present world. It is true and visible in the case of Kazakhstan where choosing one viable transport route has become so difficult for the country due to its serious repercussions on its international relations. With the rise in energy demand, the pipeline politics will intensify more in future.

Chapter 5

Conclusion

Kazakhstan being a part of Soviet Union before 1991 has always been influenced by Russia (its successor). However, gradually Kazakhstan started developing its pipeline politics which started with the emergence of China by 1997 which started giving Russia tough competition in energy sector of Kazakhstan. The above analysis shows that there is an increasing concern about the pipeline policy in Kazakhstan with the rise of China in Kazakhstan's energy sector. The emerging actors in Kazakhstan pipeline politics wants to create an alternative energy route to bypass Russia. The major country which has changed the game in the region is China with the development of Kazakhstan China oil pipeline in 1997. Many experts warn that because China is seeking more capital, energy and expanding spheres of influence, this will surely stimulate other global players, mainly Russia and United States. The KCOP (Kazakhstan China Oil Pipeline) is a favorable agreement for china and Kazakhstan since it fulfill their national interests, but it can create insecurities for other countries.

On the one hand the pipeline politics started between countries like Russia, china, Iran, and US to control the pipeline routes and the energy they contain while on the other hand the Kazakhstan has also started using energy as a part of its multi-vector foreign policy to deal with its energy partners and to use it as a bargaining tool. The major landmark year 1997 which marked the commencement of Kazakhstan China pipeline got relevance due to the development trend between energy producers and consumers in Asia: China seeks as many foreign energy resources and transport channels for these resources as possible; Secondly, Kazakhstan and other countries of Central Asia wants to develops a "free from Russia" route and pushes its energy products to foreign markets. As these trends continue along the current path, the global energy landscape will inevitably change. Current global players, such as the US and Russia, can take countermeasures to maintain the status quo.

Major Implications

First of all in case of **Kazakhstan China** emerging energy partnership Kazakhstan China oil pipeline is a watershed project in China because it is the first pipeline connecting China directly with other countries. The daily average forecast of 400,000 barrels from China will

lead to KCOP, making Kazakhstan one of the largest oil suppliers in China (U.S. information energy agency, 2006). China believes that Kazakhstan China oil pipeline provides "long-term, strategically safe oil resources rather than covering urgently needed needs." For China, the Kazakhstan China oil pipeline is the greatest asset that it seems to be only the first of several pipelines that China wants to build. It's a fact that China seems to have countless desire for oil and gas and it is quite indiscriminate with regard to who gets energy from where and how much energy it gets. China will need to consume more foreign energy in order to feed its building economy. In this way, China is likely to establish more strong relationship with Kazakhstan.

While on the other hand, Kazakhstan is an energy-rich country with the highest oil and gas reserves in all of the coastal countries of the Caspian Sea (Cohen, 2006). Before Kazakhstan China oil pipeline, the energy relations between Kazakhstan and China had only an uncertain relationship with China. The importance of Kazakhstan China oil pipeline for Kazakhstan far exceeds the value of that pipeline for China. For Kazakhstan, Kazakhstan China oil pipeline means that Kazakhstan no longer relies on Russia to deliver energy to foreign markets. In comparison with Russia, now Kazakhstan has a slightly more favorable position in the negotiations, as it can now transfer part of its energy directly to other markets without passing through Russia and also can put pressure on other countries to gain maximum interest out of them. China offers a huge market to Kazakhstan which not only limited to oil sector but also touches other areas also such as natural gas. Earlier Kazakhstan and China did not focus on natural gas extraction and consumption and crude oil extraction. However, as both countries become consumers and energy producers, natural gas will become the centre piece of their respective energy policies. In August 2005, Kazakhstan's state-owned energy company KazMunaiGas and CNPC (Chinese National Petroleum Company) unanimously agreed to develop undefined natural gas pipelines from Kazakhstan to China.

The shipments started from 2010 onwards where China has assured Kazakhstan to give 50percent of stakes in the pipeline partnership. Therefore the relationship which started from 1997 onwards became strong with time where these energy pipelines play a crucial role in nurturing their partnership. However, China cannot ignore the interests of Russia in the region since it is also a crucial energy partner of China. In case of **Russia Kazakhstan** partnership the countries share historical relationship. While in Soviet times the energy sector of Kazakhstan worked and developed under the Soviet Union and all the export work had been done by the pipelines which are solely linked to Soviet Union i.e. Uzen-Atyrau-Samara

pipeline. The situation changed after the dissolution of Soviet Union when the Central Asian countries become autonomous including Kazakhstan which started building its own energy strategy and strategic ways to gain more independence from Russia in its energy sector. In fact in case of Kazakhstan it became a crucial part of its multi vector foreign policy to divert its energy routes and by pass Russia. It focuses on diversification and involvement with multi powers to fulfill its national interest which will lead to its economic development in the region.

To overcome Russian dominance the country found alternative in China since 1997 which started giving tough competition to Russia in the energy sector. The Chinese company attacked the area of influence of Russia i.e. CIS which includes Kazakhstan. Though the Russia Kazakhstan partnership spurred in 2000s under the leadership of President Putin who focused more on its immediate neighbours rather than west. Nevertheless, the emerging importance of KCOP (Kazakhstan China oil pipeline) started giving competition to the Russian linked pipelines i.e. CPC (Caspian pipeline consortium) and Atyrau-samara pipeline. The other emerging Energy partnerships of Kazakhstansuch as with **BTC** (Baku-Tbilisi-Cehyan pipeline) and the **Kazakhstan Caspian Transport system** have also challenged the dominance and superiority of Russia in the energy sector in general and pipeline routes in particular. Since 2000 a large amount of Kazakhstan's oil exported to west therefore the European Union and Kazakhstan energy partnership also expanding and will increase more in the coming time. Though Russia still remain a major energy partner of Kazakhstan it is visible that Kazakhstan has emerged with the partners who supply the country alternative supply routes which can easily help Kazakhstan firstly to export its oil and gas and earn for its economy and secondly these alternative routes are useful to bypass Russia.

In fact the recent annexation of Crimea by Russia on 2014 has severally blew the Kazakhstan Russia relationship where Kazakhstan become suspicious of Russia since the country also has a good amount of Russian population which made Kazakhstan think of its future repercussions. The annexation has raised two problems on the one hand the economic sanctions have passed on Russia which has affected its oil sector and the doubt has emerged among its partners such as Kazakhstan who also has Russian population especially in the northern part of the country. These events can create serious repercussions for both the countries in future. Nevertheless, Russia and Kazakhstan energy trade is very high. Russia considers Kazakhstan as its very close ally and energy partner. The relationship will be affected by increasing pipeline politics in the region and interference of many other countries

of the region such as China, US and EU who are playing major role in creating a reliable and long term partnership for Kazakhstan to find a smooth alternative route for exporting its oil and gas to the energy market.

Nevertheless so far the interaction of china and Russia has remained both the neighbors have remained cooperative than competitive in most of the events. They have similar interests in the region where both wanted to balance the unilateral actions of US which can affect them in future. But in the contemporary phase these two major partners of Kazakhstan or neighbors of Kazakhstan give competition to each other in the pipeline politics. It has developed serious repercussions and tensions due to emerging pipeline politics in the region. The major tensions such as involvement of Chinese companies and huge investments which has attracted Kazakhstan and other Central Asian countries also which has reduced the role and leverage of Russia and giving it tough competition in its area of influence, the rising success of Kazakhstan-China pipeline is also an area of major concern for Russia where both the countries are getting closer and getting benefit out of it and lastly, the repercussions of Chinese influence over Kazakhstan and other Central Asian countries made Russia insecure and dissatisfied. Russia is aware of the fact that Kazakhstan has alternative routes and through its policy of pragmatism it is benefitting from all the sides.

While in case of Kazakhstan's stand on energy sector and increasing pipeline politics it is much clear that it is using its multi-vector approach in the energy sphere and trying to expand its ties with major powers and transporting its hydrocarbons via northern, eastern, western and southern routes. It is using energy as a powerful weapon in its multi vector foreign policy to achieve its national interest and also to bargain with its neighbors. Through energy Kazakhstan is gaining an upper hand and leverage in its region which needs support of many emerging partners such as China, US and EU. Therefore the present pipeline politics between major powers is a live example of emerging competition and demand for Kazakhstan's energy resources and hydrocarbons. Kazakhstan is planning and playing its own game to mark a foothold in its region and bargain as much as it can to fulfill its national interest through energy sector. It is an example that despite being pressurized on several occasions Kazakhstan has used its energy sector as a means to build up ties with many countries like China, Russia, US, EU. It is an emerging player in the pipeline politics which will became more intensified and complex in coming future.

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