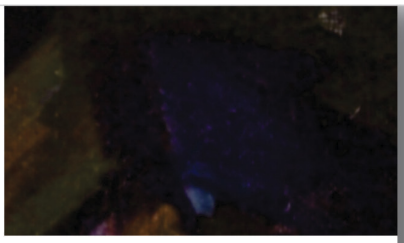

No. 1 (1) 2020

INTERNATIONAL SCIENCE REVIEWS

AIU

Social Sciences series

www.aiu.kz

ISSN: 2707-496X (Print)

INTERNATIONAL SCIENCE REVIEWS
Social Sciences series

Has been published since 2020

№1 (1) 2020

Nur-Sultan

Editorial address: 8, Kabanbay Batyr avenue, of.316, Nur-Sultan, Kazakhstan, 010000
Tel.: (7172) 24-18-52 (ext. 316)
E-mail: social-sciences@aiu.kz

International Science Reviews
Social Sciences series
Owner: Astana International University
Periodicity: quarterly
Circulation: 500 copies
The cover design is Salikhitdin Aitbayev's "The woman in blue" replica

CONTENT

Evgenii Alisov, Dmitry Kalinchenko ORGANIZATION OF WORK OF YOUNGER STUDENTS WITH INFORMATION PRESENTED BY VISUAL MEANS OF DIFFERENT DEGREES OF ABSTRACTION 4

Anar Mukasheva, Kamal Sabirov, Alisher Ibrayev ANALYSIS OF LAND OWNERSHIP IN FOREIGN LAW: CONCLUSIONS AND RECOMMENDATIONS FOR THE REPUBLIC OF KAZAKHSTAN 11

S.K. Amandykova, N.I. Khairmukhanmedov LEGAL ASPECTS OF PROTECTING THE RIGHTS OF MINORITIES: PROTECTING THE RIGHTS OF THE KAZAKH DIASPORA ABROAD 17

Maliutin Nikita Sergeevich TRENDS IN THE MODERNIZATION OF CONSTITUTIONAL CONTROL IN THE RUSSIAN FEDERATION 23

Lazzat Yerkinbayeva Daniya Nurmukhankyzy, Indira Nesipbayeva LEGAL PROBLEMS OF REGULATING AGRICULTURAL COOPERATION IN THE REPUBLIC OF KAZAKHSTAN 30

Aigul Bokayeva DEFINING THE POST-MODERN 41

A.K. Kurmashev RESOURCE NATIONALISM AS A KEASTONE FACTOR IN KAZAKHSTANI FOREIGN POLICY 50

Aigerim Ibrayeva CASPIAN REGION ENERGY RESOURCES AND THEIR IMPACT ON ..55

CASPIAN REGION ENERGY RESOURCES AND THEIR IMPACT ON

Aigerim Ibrayeva
Nur-Sultan, Kazakhstan

Abstract: Energy security has emerged in recent years as one of the cornerstones of the European Union's foreign policy. The EU is highly dependent on imports of oil and gas, 35 per cent of which comes from Russia. Diversification of energy supplies is thus a key goal for the EU. The Caspian region contains some of the largest undeveloped oil and gas reserves in the world. The intense interest shown by the major international oil and gas companies testifies to its potential, it could become a major oil supplier in the future. Development of the region's resources still faces with obstacles. These include lack of export pipelines and the fact that most new pipeline proposals face difficulties due to security of supply considerations, transit complications, political and legal considerations and market uncertainties. There are also questions regarding ownership of resources, as well as incomplete and often contradictory investment regimes. This study focuses on the countries along the southern rim of the former Soviet Union that are endowed with significant oil and gas resources: Kazakhstan, Turkmenistan and Uzbekistan in Central Asia, and Azerbaijan in Transcaucasia. Several neighboring states are also covered in the discussions of oil and gas transportation and markets. The Southern Energy Corridor (SEC), which aims to link Caspian Basin and potentially Middle East gas supplies to Europe, is one of the EU's six priority axes of energy infrastructures. The article provides an analysis of the EU's efforts in the wider Black Sea area to increase its energy security.

Keywords: Caspian countries, European Union, hydrocarbons, Southern Corridor, pipeline, energy security

Introduction. The dissolution of Soviet Union in 1991 bore three states in Central Asia: Kazakhstan, Turkmenistan and Uzbekistan. Their proven conventional natural gas reserves amount to 27.8 tcm (trillion cubic meters), 13.3% of the world's total. According to the International Energy Agency (IEA), their total production will increase from 143 bcm (billion cubic meters) in 2009 to 265 bcm in 2035, and the region will become an important gas exporter. (Statistical Review of World Energy. 2012).

Table, presents the Central Asian states proven reserves, production, consumption and net exports in detail. The Central Asian states seek to derive maximum benefit from their rich natural gas reserves. Inheriting the Soviet pipeline network, they have relied on Russia for the bulk of their west-bound gas exports (see Table, for Central Asian exports by destination). *(Review of World Energy 2012).*

The Russian dominance on gas transit and the poor access to alternative markets have set value on Central Asian gas. In order to increase revenues from their gas exports, the Central Asian states search for alternative pipeline projects which will diversify their transit routes as well as export markets. However, pipelines carrying Central Asian gas to distant markets have to pass through multiple countries which have their own strategic interests. There are four major powers striving for potency in Central Asia: Europe and Turkey, led by the USA in the West, Russia in the North, rapidly growing China in the East and Iran seeking to become a regional power in the South. The Russian reaction to political events in Ukraine in 2014, and specifically its annexation of Crimea, military involvement in the separatist movements in eastern Ukraine, and the Malaysian airlines MH17 disaster, has generated a great deal of commentary about European dependence on Russian energy in general and natural gas in particular. The price dispute which led to termination of Russian supplies to Ukraine in June 2014, and the possibility of interruptions of gas supplies to Europe, led to renewed calls for diversification of European gas supplies and reduction of Russian imports. The Caspian is of central interest for European energy security, although the supply chain from the region has been traditionally kept under Russian Federation control. However, for the past decade, the EU is becoming increasingly ambitious in planning Caspian pipelines that exclude Russian Federation's territory and the Nabucco Pipeline project was in the center of these strategic

efforts for a considerable amount of time. The Caspian is therefore also at a crossroads between grand and conflicting energy interests of the Russian Federation and Europe.

Table 1 - Natural gas in Central Asia and Caspian Basin.

Country	Production Bcm	Consumtion Bcm	Net exports bcm	Proven reserves	
				bcm	%
Azerbaijan	14.8	8.2	6.6	1.3	0.6
Kazakhstan	19.3	9.2	10.1	1.9	0.9
Turkmenistan	59.5	25.0	24.5	24.3	11.7
Uzbekistan	57.0	49.1	7.9	1.6	0.8
Total	135.8	83.3	42.5	27.8	13.4

Source:British Petroleum, 2012.Statistical Review of World energy

Table 2 - Natural gas exports from Central Asia and Caspian Basin

Exports to	Azerbaijan	Kazakhstan	Turkmenistan	Uzbekistan
Russia	1.4	11.5	10.1	2.2
Iran	0.4	-	10.2	-
China	-	-	14.3	-
Turkey	3.8	-	-	-
Others	1.7	0.1	-	2.0

Source:British Petroleum, 2012. Statistical Review of World energy

By concentrating on the EU's aims of achieving greater diversification of energy supplies by importing gas from the Caspian Basin through the Southern Energy Corridor (SEC), the article argues that although there is an underlying tension between the geopolitical realities of the region, the EU has been able to become an important player in the energy security of the region, pushing forward its agenda including the geopolitical Nabucco pipeline, the flagship of the SEC. EU-supported SEC builds upon the oil and gas pipelines in order to prevent Russian monopoly over the Caspian Basin supplies. If the SEC is possible then it is mainly because of the path-dependent processes set off by the east-west corridor, which inextricably connected the international position of Azerbaijan and especially Georgia and Turkey transit role between the Caspian Sea and Europe. Iran is the largest country in the Middle East with the capacity to pursue a serious international agenda. Consequently, an amicable relationship with Tehran, who could be convinced to act in the common interest of the region, would be highly beneficial for all parties involved. Iran has gone from being a consumer of foreign technology and a pure exporter of oil to being an exporter of oil, gas and petroleum products, a manufacturer of petroleum sector equipment as well as a hub for energy connectivity in the region. The country has pipelines that are connected with Turkmenistan and Turkey. The EU's demand of Caspian gas could be supplied through Iran. This paper has two major aims: first to determine potential and importance of the countries. Second, to examine the realistic options for reducing European dependence on Russian gas. Further, examines the alternative gas options for reducing dependence on Russian gas; it also provides some idea of the possible supplies through the pipelines and the likely competitiveness of Russian versus alternative gas supplies. The analysis will be based on a mixture of documentary analysis and a review of previous literature. The documents are published by relevant factors, such as the US Energy Information Administration (EIA) and the International Energy Agency (IEA). These documents provide necessary statistical information. This statistical data, in combination with previous literature on the different countries' energy policies will be instrumental to gain a full understanding of the Caspian region's energy security dynamics.

International relations theory and energy security. In the field of energy security and the study of energy resources it is not customary to employ a theoretically focused approach.

Instead, most academics have opted for a descriptive or historical methodology, wherein a full description of the case at hand informs the reader of a specific situation. Given the fact that energy security is becoming an ever more important aspect of international relations, it is worthwhile to consider integrating theories of international relations (IR) within the energy security field. *(M.S. Crandall, 2006).* The question then remains which theory would be best suited to analyze matters of energy security. This is quite a complex matter, given the rather vast amount of theoretical perspectives within international relations. It would require a thorough discussion of each of these theories in the energy security context to provide a solid answer to that question. For the purposes of this paper, such a discussion is not feasible. However, we can present some initial reflections on arguably the two most dominant IR theories: realism and liberalism.

Realism is the oldest theory in international relations. Realists argue that the international system is defined by anarchy, and there is no central authority. *(G.Cenaks, 2010).*

Within that system states are sovereign and autonomous of each other. By consequence, realist scholars have little faith in the effectiveness of international institutions to contain the power of sovereign states. The realist vision on the world then rests upon four assumptions. Firstly, survival is the principle goal of every state. This means that states will always primarily make sure they can defend themselves from attacks, be they of militarily (primarily) or economical nature. Secondly, states are considered to be rational actors. They will always rationally consider the best way to maximize their survival potential. Thirdly, states all have some kind of military capacity and they do not know exactly how their neighbors would behave, thus making the world unpredictable and dangerous. Fourthly and lastly, the Great Powers, which are the states with the most military and economic might that dominate the international arena.

Liberalism (and its predecessor idealism) is the classical contender of realism in IR. Its core assumption is that national characteristics of states matter in international politics. This is completely different from realism, which assumes that all states have similar goals in the international arena. Instead liberalism claims that a state's ideological focus has a strong influence on its goals. Traditionally this argument has been used to differentiate between liberal states and others. The democratic peace theory, which claims that liberal states do not go to war with each other is a prime example of this differentiation. *(K.N. Waltz, 1979).*

Moravcsik has developed the liberal theory and claims it is based upon three assumptions. (M. Doyle,1997). Firstly, individuals and private groups, not states, are the most important actors in the international arena. Secondly, states represent a part of the domestic society, serving its interest. Thirdly, the combination of those preferences in the international system determines the behavior of states. The realist focus on balance of power and hegemony plays a secondary role at best. Furthermore, even though survival may still be an important goal, a state's economic and ideological interests can be equally important. Regarding the matter which theory is best suited to analyze energy security issues, A. *(Moravcsik,1997),* provide an interesting perspective, that will largely be adopted in this paper as well. They have attempted to integrate IR theory in matters of energy security and argue in favor of realism over liberalism. Political actors that belong to the liberal tradition (they mention former U.S. president Jimmy Carter as a prime example) claim that actors in the international arena are primarily interested in profit maximization in the energy market. However, realists argue that energy resources are not merely economic commodities, but are key elements in state power. More energy resources equal more state power. That power is naturally affected both by the state's ability to extract and transport the resources, and their global demand. As such, Luft and Korin claim that resources such as oil and gas cannot be treated as merely economic commodities, as long as those have key strategic value. (G. Luft, A. Korin, 2009).

This paper is set clearly within the realist tradition. As such it will focus primarily on the action of states within the Caspian region and the power dynamics that come with energy security. Energy resources are material objects that have a clear political significance, which means that

they belong very well in a materialistic ontology and a positivistic epistemology. The analysis that will follow is firmly based upon these assumptions.

A profile of the Caspian Basin, the Caspian water plateau. The Caspian is the world's largest enclosed or landlocked body of (salty) water – approximately of the size of Germany and the Netherlands combined. Geographical literature refers to this water plateau as the sea, or world's largest lake that covers an area of 386,400 km. The Caspian coastline shared by five riparian (or littoral) states. Table below is described about proved reserves of natural gas in the Caspian countries and it shows average of barrels increasing by each year. Central Asian countries and Azerbaijan proved oil reserves is increased from 1994 till 2014. (BP Statistical Review of World Energy)

Table 3 - Oil- Total proved reserves

Country	At end 1994 Thousand million barrels	At end 2004 Thousand million barrels	At end 2013 Thousand million barrels	At end 2014 Thousand million Tones	Thousand million barrels	Share of total	R/P ratio
Azerbaijan	1.2	7.0	7.0	1.0	7.0	0.4%	22.6
Kazakhstan	5.3	9.0	30.0	3.9	30.0	1.8%	48.3
Turkmenistan	0.5	0.6	0.5	0.1	0.6		6.9
Uzbekistan	0.3	0.6	**0.6**	0.1	0.6		24.3
Central Asia total:	7.3	17.2	42.6	5.1	38.2	2.2%	102.1

Source: BP Statistical Review of World Energy

Table 4 - Natural gas- Total proved reserves

Country	At end 1994 Thousand million barrels	At end 2004 Thousand million barrels	At end 2013 Thousand million barrels	At end 2014 Thousand million Tones	Thousand Million barrels	Share of total	R/P ratio
Azerbaijan	n/a	0.9	0.9	41.2	1.2	0.6%	68.8
Kazakhstan	n/a	1.3	1.5	53.2	1.5	0.8%	78.2
Turkmenistan	n/a	2.3	17.5	617.3	17.5	9.3%	
Uzbekistan	n/a	1.2	1.1	38.3	1.1	0.6%	19.0
Central Asia total:		5.7	21	750	21.3	11.3%	166

Source: BP Statistical Review of World Energy

The "Inner Circle" of the Caspian Basin consists of the five littoral (riparian) states, Russian Federation, Islamic Republic of Iran, Azerbaijan, Kazakhstan, and Turkmenistan. They are could be roughly divided the traditional (Russian Federation and Iran), and the three newcomers (Azerbaijan, Kazakhstan and Turkmenistan).

Russian Federation. The Russian Federation controls the north-western shore of the Caspian Sea and only a negligible part of its extensive energy reserves appear to be located in the Caspian Basin. Therefore, the Russian Federation has adopted a strategy of involvement in the energy business of the other, better-endowed riparian states by means of joint resource development (production revenues) and granting access to the Russian oil and gas pipeline system

(transport revenues). The main players in this field are state-owned companies Gazprom, Rosneft, and Transneft as well as other large private energy enterprises like Lukoil, Sibneft or Yukos *(G. Cesnakas 2010).* From the 2000s the Russian Federation turned to bilateral and plurilateral agreements with Caspian littoral countries to secure its economic interests in the basin. Due to these efforts agreed upon the division of the Northern part of the Caspian with Azerbaijan and Kazakhstan, while still strongly the five-party. Although this agreement presents a good sign for the future, its major downside is that it is completely dependent on the good relations between littoral states and therefore dependent on the current geopolitical realities of the Caspian.

The top priority task in Russia's fuel and energy expansion is to create an integrated water and fuel-energy complex in Central Asia (under Russian management). One of the possible ways to carry out this task is to include Tajikistan in the water-energy consortium being created. Russia's goal is clear: it wants to strengthen its position as Turkmenistan's main partner in the energy sector and, in so doing, maintain control over the export of Turkmen gas. Today, the growth rates of production, including those of gas export, from the Central Asian countries is much higher than the rates of modernizing and developing their gas transportation systems. But the main gas artery from the region's states to Russia-the major gas Central Asia-Center pipeline – is currently operating to its limit. This relates to all three gas transportation countries: Turkmenistan, Uzbekistan and Kazakhstan. Regarding intra-regional relations in general, Russia's concerns about the influence of the EU and the US in the Caspian Basin have increased. As for Iran, the historically adverse relations have improved in some areas as the two powers still share a number of mutual interests in the Caspian Basin, for instance their joint opposition to growing Western interference in regional affairs.

Islamic Republic of Iran. Iran holds 16% of global proven gas reserve. *(Anis H. Bajrektarevic, 2015).* Total gas production in 2014 was 172.6 bcm, while domestic consumption stood at 117.6 bcm. More than a third of domestic consumption is used for boosting oil production by pumping gas into maturing oil fields. In 2009, natural gas had a share of 57.9% of total energy supplies; oil was down at 40.8%. Foreign investment is all blocked due to US bilateral sanctions based on the Iran sanctions Act (1996), sanctions imposed by the UN and the EU. (BP Statistical Review of World Energy, 2015). It is in Russia's vital interest that Iran does not turn into a competitor on the EU gas markets. Iran is considered an attractive export route for oil and gas between Central Asia and Europe, and for oil from both Central Asia and Transcaucasia to the Persian Gulf. It already has a well-developed oil and gas infrastructure, including portions of pipeline that could be used for the routes mentioned above or for swaps. By some estimates, an Iranian route could prove significantly cheaper than other proposed pipelines. Foreign policy priorities have been affected by its past dominance as well as the religious ties with Azerbaijan, Kazakhstan and Turkmenistan. Of the most concern are the Islamic Republic of Iran´ s relations with Azerbaijan, hampered due to Azerbaijan´s westward cooperation on energy matters.

Additionally, the ethnic Azeri minority makes up a quarter of Iran´s population. An economically strong and independent Azerbaijan, could potentially incite the Azeri population in Iran to start its own nationalistic movement and threaten its territorial integrity. Azerbaijan to rise any further as a global oil player might as well be seen as Iran's strategic goal. *(M.S. Crandall 2006).*

There are serious doubts about the viability of the proposed Armenia–Georgia–Ukraine pipeline on economic and – following Russia's annexation of Crimea – geographical grounds. Aside from these options, gas exports to Europe via Turkey using existing infrastructure, seems the most feasible option prior to 2020.

Irrespective of the technical and geopolitical feasibility of these proposed routes, the second major uncertainty over the export of Iranian gas to Europe is the availability of sufficient gas for export markets over and above Iran's domestic requirements. With the required investment and technology, Iran could increase production capacity to around 210–230 bcm/year by 2018, but

this is expected to be mainly allocated to domestic and regional export markets. After meeting growing domestic demand – expected to reach 200–220 bcm/year before 2020 – and supplying gas to the already contracted export markets of the neighboring countries of Turkey (10 bcm/year), Iraq (10 bcm/year), and Oman (5–10 bcm/year), any gas available for export to the rest of Europe is expected to remain marginal prior to 2020.(Statistical Review of World Energy 2009).

Beyond 2020, depending on how fast Iran can develop the remaining phases of the South Pars and other major discovered gas fields, the country's total production capacity could reach around 350 bcm/year by 2030. (Gerhard Mangott 2010). It is only then that significant exports to Europe can be envisaged, provided that the required infrastructure can be made available. Exports of around 10–20 bcm/year to Europe through Turkey via the existing infrastructure are possible in the 2020s, but it is unrealistic to imagine more substantial volumes becoming a reality until after 2030.

Azerbaijan. Azerbaijan's total energy production has increased almost three-fold from 27.9 million to 74.9 million oil equivalent mainly due to oil and gas production. The country's total energy consumption in 2009 was about 15.7 million tons, which means that a significant part of its production is exported.

Controlling the western side of the Caspian Sea, Azerbaijan holds a crucial position between Central Asia and Europe. Azerbaijan produced 41.7 million tons of oil in 2007. Heavily dependent on the oil sector, the State Oil Company of Azerbaijan Republic (SOCAR) was created to efficiently benefit from the abundance of hydrocarbon resources in the respective sector of the Caspian Sea. (Scalability as Drawn', *Azerbaijan 2012).*

The Shah Deniz Phase 2 project is expected to go into production in late 2018, and to start exporting to Europe in late 2019. In addition to Shah Deniz, there are several offshore Caspian fields and exploration prospects that could increase Azerbaijan's gas production in the 2020s. One field, Absheron, has been declared commercial under a PSA (with Total as operator, GDF Suez, and SOCAR); production is expected to start in 2021. SOCAR officials have projected an increase in production to 40–45 bcm of sales gas by 2025; this assumes 9–14 bcm/year of gas from new offshore projects. We estimate that 3–8 bcm/year of additional gas could become available for export to Europe at some point in the 2020s.

Kazakhstan and Uzbekistan. Holding the greatest share of Caspian oil in its national sector, Kazakhstan´s foreign policy is influenced by its dependence on Russian Federation as a primary energy transit route. Additionally, the growing inflow of FDI from China signals the rising importance of cooperation with the east.

Uzbekistan is a major gas producer (50–60 bcm/year in recent years), and Kazakhstan an expanding one (about 12 bcm/year in recent years, likely to rise to 20–25 bcm/year in the 2020s). Most Uzbek and Kazakh gas is consumed domestically; small quantities (7–10 bcm/year from each) are exported to Russia; and both countries have concluded framework agreements, and some contracts, with China, providing for exports via the Turkmenistan–China pipeline, which started in 2013 from Uzbekistan. It is possible that Uzbek and Kazakh exports to Russia will fall in the 2020s, but there will be calls on this gas from China and from their domestic markets. *(Dekmejian, H.H.Simonian 2003).*

There are essentially just two viable way that Uzbek and Kazakh gas could reach the European market. Namely, Kazakh gas could be transported by pipeline across the Caspian Sea to Azerbaijan, and thence to Europe.

Via Russia, via existing pipelines, to European destinations. (Such sales were conducted, with the gas bought and resold by Gazprom and other Russian companies, from the mid 1990 s to 2009.) *(M.P.Croissant, B. Aras, 1999).*

Turkmenistan. The European Southern Corridor strategy, Turkmen gas could come from Trans-Caspian pipeline, envisioned to transfer Turkmeni gas to Azerbaijan via the Caspian sea, where it could easily connect to the pipelines heading for Europe. These plans also effectively

bypass both Russian Federation and Islamic Republic of Iran, but their major are the bad relations between Turkmenistan and Azerbaijan over the demarcation of the Caspian basin.

For Iran, a closer relationship with Turkmenistan promised useful oil swap agreements and access to the potentially lucrative Turkish natural gas market. The related further step of reaching Europe through Turkey would have put both Iran and Turkmenistan on the map as competitors to Gazprom. Iran considered, therefore, the 6 BCM Korpedzhe (on the Caspian shore of Turkmenistan) to Kurt-Kui line as a useful first step. The line was funded by Iran, with Turkmen debt to be repaid through gas deliveries. Still, the line had immediate advantages for Iran. A new domestic line linking gas fields in the south to the populous and industrial north-west would have cost far more than the Korpedzhe to Kurt-Kui pipeline. Since then Beijing has emerged as Turkmenistan's near monopolistic buyer-about 80 percent of Turkmen gas exports are now directed toward China. If the Turkmen authorities want to avoid total dependency on China, they will have to reopen discussion with Europe, but such a push does not appear likely to come either from Ashgabat or from Brussels in short term. I assume, that the only likely Central Asian source for significant gas exports to Europe is Turkmenistan. With only Turkmenistan contributing significantly to any gas transport towards the EU, additional gas from Azerbaijan will most likely have to ensure the necessary capacity utilization and economies of scale in order to make the EU's tapping of Caspian resources economically viable.

2. The EU's Energy Import Dependency. In 2011, the EU-27 imported about 83 per cent of its crude oil, 64 per cent of natural gas and 47 per cent of its coal demand. Fossil fuel projections towards 2030 indicate that gas demand is most likely to rise while oil consumption will stagnate at the current high level. So far, Russia is the EU's most important energy supplier. Russia's share of EU gas oil, and coal imports amount 34 per cent, 33 per cent and 26,2 per cent respectively. Norway and Libya, the EU's second and third largest supplier of oil, account for about 15 and 10 per cent of imports. In the field of gas, Norway and Algeria contribute 31 and 14 per cent to the EU's demand. Though EU energy imports are likely to further diversify as a consequence of increasing liquefied natural gas imports from Africa and Middle East, additional political steps towards diversification are necessary.

In the analysis on energy Import Dependency, which is made by European commission, *(OIES PAPER 2014),* we can see and make comparison, how it is increased from 1995 until 2014, it means that European Union seeks the way to diversify its energy demand.

Table 5 - Import Dependency-All Fuels- %

Import from extra EU	1995	2000	2005	2010	2013	2014
EU -28	43.1	46.7	52.2	52.6	53.1	53.5
Index 1995	100.0	108.3	121.1	122.2	123.3	124.1
Intra and Extra-EU imports						
BE	80.8	78.1	80.1	77.9	77.4	80.1
BG	55.9	46.0	46.7	39.6	37.7	34.5
CZ	20.6	22.9	28.0	25.6	27.9	30.4
DK	33.4	-35.0	-49.8	-15.7	13.3	12.8
DE	56.8	59.4	60.4	60.1	62.66	61.6
EE	32.3	32.2	26.1	13.6	11.9	8.9
IE	69.5	84.8	89.6	86.6	89.3	85.3
EL	66.7	69.5	68.6	69.2	62.2	66.2
ES	71.7	76.6	81.4	76.7	70.4	72.9
FR	48.0	51.5	51.6	49.1	48.0	46.1

HR	36.1	48.4	52.5	46.6	47.0	43.8
IT	81.9	86.5	83.4	82.6	76.8	75.9
CY	100.5	98.6	100.7	100.8	96.4	93.4
LV	70.4	61.0	63.9	45.5	55.8	40.6
LT	63.1	59.4	56.8	81.8	78.3	77.9
LU	97.7	99.6	97.4	97.1	97.0	96.6
HU	47.9	55.2	63.1	58.2	52.1	61.7
MT	104.8	100.3	100.1	99.0	104.1	97.7
NL	20.0	38.1	38.0	30.3	26.1	33.8
AT	66.4	65.4	71.6	62.8	61.6	65.9
PL	-1.2	9.9	17.2	31.3	25.6	28.6
PT	85.3	85.1	88.6	75.1	72.9	71.6
RO	30.3	21.8	27.6	21.9	18.5	17.0
SI	50.9	52.8	52.5	48.6	46.9	44.6
SK	68.5	65.6	65.3	63.1	59.2	60.9
FI	53.6	55.1	54.2	47.8	48.5	48.8
SE	38.9	40.7	36.8	36.6	31.6	32.1
UK	-16.4	-16.9	13.4	28.4	46.4	45.5

Source: EU Commission. EU energy in figures, statistical pocketbook 2016.

Table 6. shows gas demand scenarios for those countries which are – and are likely to continue to be – highly dependent on Russian gas (with an SCI exceeding 30) up to 2030.

	Gas demand in 2013	Russian gas imports in 2013	Gas demand projections			
Central European countries			2015	2020	2025	2030
Austria	8.53	4.79	8.53	7.54	7.60	7.11
Czech Republic	8.47	7.27	8.08	8.69	8.68	9.94
Slovakia	5.81	5.06	4.72	4.86	6.19	7.66
Poland	18.31	11.87	15.73	17.08	19.49	21.07
Hungary	9.28	5.52	10.65	11.12	10.37	9.79
Total	50.4	34.51	47.70	49.30	52.33	55.57
Baltic countries						
Estonia	0.68	0.64	0.34	0.38	0.41	0.43
Latvia	1.73	1.01	1.83	1.93	2.05	2.13
Lithuania	2.71	2.21	3.24	3.47	3.75	4.03
Finland	3.48	3.22	2.33	2.35	2.72	3.06
Total	8.6	7.08	7.74	8.13	8.92	9.65
South east European countries						
FYROM	0.16	0.09	0.12	0.12	0.12	0.12
Bosnia/Herzegovina	0.19	0.18	0.26	0.27	0.29	0.30
Bulgaria	2.59	2.67	2.89	3.03	3.14	3.29
Serbia	2.52	1.84	2.30	2.30	2.30	2.30
Greece	3.84	2.39	4.32	4.10	3.85	3.64
Total	9.3	7.17	9.89	9.82	9.69	9.65
Grand Total	68.3	48.76	65.33	67.25	70.95	74.86

An important conclusion from those Table, is that for the three groups of countries which are highly dependent on Russian gas, demand is expected to increase by less than 7 bcm during the period 2013–2030: in Central Europe by 5.2 bcm, in the Baltic countries by 1.05 bcm, and in south-east Europe by 0.4 bcm. In 2030, total demand for gas in countries highly dependent on Russian gas in the Baltics and south-east Europe will be 19.3 bcm. In Central Europe, demand is much larger, particularly in Poland (which has significant domestic gas production and an SCI which is significantly lower than other countries in the region).

2.1. Alternative Sources of Gas Supply to Europe

In the early 1970s, European indigenous production covered most of the region's gas demand. By 2013, due to faster growth rates of consumption and a decline in gas production since the early 2000s, it only accounted for around 57 per cent of demand. European production is falling everywhere apart from Norway, and as a result, despite slow demand growth expected up to 2030, Europe will become sharply dependent on imports. Two countries represented 70 per cent of the indigenous production in 2013 – Norway: 109 bcm and the Netherlands: 86 bcm. These countries are also the two main sources of indigenous gas for the other European countries. Production from the UK continental shelf (UKCS) is still crucial, at about 38 bcm, but it only represents about half of the national needs. Another 19 countries produced gas in 2013; this was used by their national markets, except for Denmark which exported small quantities. Table above, shows scenarios for indigenous gas production in Europe for 2015, 2020, and 2030. Production is expected to decline from 282 bcm in 2013 to about 266 bcm in 2015, mostly due to the limit imposed on production from the Groningen field in the Netherlands. By 2020, indigenous production could decline by another 20 bcm as a result of sharper decline in the Netherlands, UK, and Germany. By 2030, European conventional gas production is expected to be about 172 bcm, a reduction of 110 bcm compared with 2013. Table shows, that the total is deeply dependent on the three largest producers, which account for 82–84 per cent of the total throughout the period. Table 7 shows, indigenous conventional gas production in European markets 2013–2030 (bcm). (S. Pirani, S, 2012).

Country	2013	2015	2020	2030
Norway	109	109	110	100
UK	38	38	34	20
Netherlands	86	71	63	26
Other	49	48	39	27
TOTAL	282	266	246	172
Norway/UK/ Netherlands as a % of total	83	82	84	84

3. The EU's South European gas corridor: options for gas supplies. The EU has been an active outside its borders in attempting to diversify its import supply routes and strengthen its ties with non-Russian suppliers in its neighborhood. This had led to a nascent 'energy diplomacy'. Already in 2008 the EU had announced a strategy to open up new gas import routes from Central Asia, the Caucasus and the Middle East – a project known as the Southern Corridor. In June 2013, the Shah Deniz consortium and its leading stakeholders (the State Oil Company of Azerbaijan (SOCAR), BP, Statoil, Total, Lukoil, NICO and TPAO, Turkey's national energy company) concluded negotiations that have lasted over a decade, approving the Trans-Adriatic Pipeline (TAP) for the final leg of a pipeline bringing gas from the Shah Deniz field in the Caspian Sea to European markets. The consortium made a Final Investment Decision (FID) for stage 2 development of the Shah Deniz field, triggering plans to expand the South Caucasus Pipeline

through Azerbaijan and Georgia, construct the Trans-Anatolian Gas Pipeline (TANAP) across Turkey and construct the TAP across Greece and Albania and into Italy. The first gas delivery to Europe (10 bcm/y) is scheduled for 2019 while plans to double this capacity are on the books. Another 6 bcm/y will go to Turkey. *(R. Kandiyoti, 2008).*

In order to diversify EU gas supply, and to provide Caspian suppliers with new export routes, several projects have been studied, re-evaluated, scrapped and resurfaced for the Southern Gas Corridor. The European Commission's declared objective remains to eventually supply 10% of European gas demand via an enhanced Southern Gas Corridor, but the current scenario would see the Corridor initially supply about 2% or 3% of Europe's demand. This may seem minor, but the countries receiving the gas – from Bulgaria to Greece – are those that have the biggest energy security concerns due to reliance on Russian gas. With British petrol committing its Shah Deniz resources to the EU's Southern Gas Corridor 10 billion cubic meters of Azerbaijani gas will eventually find its way to Europe by 2018.

The source diversification provided by the Southern Gas Corridor is not a panacea for European energy security but represents an important step in expanding Europe's energy frontiers towards the Caucasus and potential future partners in Iraq, Turkmenistan or Azerbaijan.

The Caspian and the Central Asian countries have a number of options to diversify their transport routes as well as export markets. While there is only the Turkmenistan–China pipeline to reach eastwards, three routes extend from Central Asia to the West: via the Caspian Sea, via Iran, and via Russia.

Nabucco-West vs.TAP: After years of fierce competition among Europe's energy giants, the developers of a major Azerbaijani natural gas field in the Caspian Sea recently picked the Trans-Adriatic Pipeline (TAP) project over the Nabucco West project to transport Caspian natural gas to Europe. According to the estimated cost of the project is around $5 billion. (S. Pirani, S, 2012). If constructed, TAP, developed by Norway's Statoil, Switzerland's EGL and Germany's E.ON, will ship 10 bcm of gas per year, with the option to increase the capacity up to 20 bcm. It will run through Greece and Albania, under the Adriatic Sea to southern Italy. The construction of TAP would provide the countries involved in this project, such as Greece and Albania, with a large inflow of foreign direct investment (FDI) and foster economic growth. West is the shortened form of the "Nabucco" put forward a few years ago. "Nabucco", one branch of which started from Georgian-Turkish border and was more than 3 thousand km in length, was planned for the transportation of 31 billion m^3 of gas from Central Asia, South Caucuses and Middle East regions. The geopolitical situation in the above-mentioned regions, and the absence of export routes from these regions Europe put the realization of that project under question. (R. Kandiyoti, 2008). Considering the gains accruing to Azerbaijan and Continental Europe from TAP and Nabucco-West would favor TAP over Nabucco-West in 2013. TAP is based on a 2013 intergovernmental agreement between Albania, Italy and Greece. The advantage of the TAP project is that it links the Caspian Sea and Turkey on one side and the European market on the other. Apart from its main route to Italy, which is the biggest European gas market after Germany, interconnectors can be built to Bulgaria from Greece, as well as a new pipeline to Montenegro and Croatia along the Adriatic coast from the tie-in in Albania, the Ionian Adriatic Pipeline (IAP).

Via the Caspian Sea (TCP). TCP carries Central Asian gas via an offshore pipeline under the Caspian Sea to its western coast, and from there the Southern Corridor (TANAP and TAP) delivers the gas to the Turkish and European markets. Turkmenistan benefits by 0.5 bn € since TCP bypasses the current transit countries, i.e., Russia and Iran, and introduces a new transport route for westbound Central Asian gas. Turkmenistan's spare production capacity is enough to fill up the offshore pipeline's capacity. Turkey enjoys supply competition in its market as well as it strains it position on the route (0.bn €). However, Azerbaijan benefits from Turkmenistan's access to its export markets (0.5bn €) since it is the transit country on the route and controls Turkmenistan's access to the Southern Corridor. Although the EC supports TCP, Turkmen gas via

TCP returns the European players (the Balkans, Continental Europe and UK) only 0.3bn €due to the transit countries on the route, and the European companies show little interest in the project. Costing 0.5bn€, is strategically viable for the non- European countries Turkmenistan, Azerbaijan and Turkey (1.5bn € in total). However, continuing opposition from Russia and Iran currently appears likely to prevent any submarine gas pipeline across the Caspian from moving beyond a hypothesis.

Via Iran (TTP) Linking Turkmenistan via Iran to the Southern Corridor. Turkmenistan benefits 0.3bn €. Again, the transit countries, in this case Turkey and Iran, collect most of the gains from the project. While Turkey enjoys supply competition in its market, Iran benefits from better access to the markets. TTP affects the rest of the players in an analogous manner to TCP. In the nearest time, Turkmenistan intends to initiate gas extraction in the world's second gas field Galkynysh, whose reserves are evaluated from 13.1 to 21.2 tcm of natural gas. In view of starting the development of such giant gas field, Ashkhabad is concerned about seeking new exports routes. *(L.Maruelle, J. Mankoff, 2016).* Iran has the world's biggest proven gas reserves, and Turkmenistan is ranked number four globally in terms of gas reserves. Together, the two neighboring countries, located in the richest swathe of land in the world in terms of energy resources, between the Caspian Sea and the Persian Gulf, have some 25% of the world's gas. With the European Union and the United States lifting sanctions against Iran on 16thJanuary 2016, the EU will gain access to a second major gas market in the world, beside Russia, and combined with the soaring LNG imports envisaged in the next few years, the EU's Energy Union's strategic goal to diversify Europe's energy supply could be reached. After raising sanctions and normalizing the Tehran-US relationships and the extension of the new gas pipeline presently, supplying gas only to Iran as far as Turkey and further on to Europe could become soon reality.

Via Russia: from South Stream to Turkish Stream. The south stream project is Russia's response to Nabucco. It was first launched in June 2007 when the Italian energy company Eni and Gazprom of Russia signed a memorandum of understanding (MOU) which push the construction of 900 km submarine pipeline from Druzhba on the Russian Black sea coast to the Bulgarian city of Varna. In Bulgaria, the pipeline will divide into two. The southern side will run through Greece and under the Ionic sea to Italy, while the northwestern part will run through Serbia and Hungary to the Baumgarten gas hub in Austria. On December 1, 2014, following a meeting between the Russian and Turkish presidents, president Putin and Gazprom CEO A. Miller announced that South Stream had been cancelled. The South Stream cancellation was accompanied by a Russian announcement that it would be replaced with pipelines of the same capacity to deliver gas across the Black Sea directly to Turkey. Of the 63 bcm/year of capacity, 14 bcm/year would replace the volume currently delivered to Turkey via Ukraine and the trans-Balkan pipeline, while the part (approximately 50 bcm/year) would be delivered to the Turkish-Greek border where Gazprom would set up a natural gas "hub" for Southern European customers. Turkish Stream proposals – both of which would create a new route in bringing (the same) Russian gas to Europe. For the EU, the energy security benefits of South Stream and Turkish Stream involving avoiding gas transit through Ukraine. Both routes diversify supply routes although not supply sources.

Russians officials have stated that if the negotiations progress, gas could be delivered by the end of 2018. Turkish authorities, on the other hand, expect the project to continue for at least two and half years.

Conclusion. The five Caspian littoral states differ in terms of size, power projection capabilities and wealth in on- and offshore natural resources. The two main Caspian littoral powers are Russia and Iran, both endowed with huge natural gas and oil resources on shore, and both not very well endowed with natural gas resources offshore in the Caspian sea. The other three Caspian littoral states lack power projection capabilities, lack a diverse export market for natural resources (especially Turkmenistan and Kazakhstan). As such, the vision of importing large quantities of natural gas or oil from the eastern side of the Caspian (Central Asia) to the Western

side of the Caspian (Europe), is a task and will require a shift in EU foreign policy or alliances vis a vis third countries. The EU's energy security policy revolved around primarily two objectives: integration and diversification. The former of these meant expanding the internal EU market structures, this way also including external actors. This focus on transparent market rules and networks would strengthen Brussels, as it would increase access and availability of energy resources to the EU. Moreover, by interlinking energy infrastructure the Union would become more resilient to possible supply disruptions. In terms of the EU's diversification efforts, these were mainly related to attempts to establish new routes, seek to include new energy suppliers and finally to promote different energy types. All these three factors can be seen as having the same fundament in the EU energy thinking; as too large dependence on any one of these would constitute an energy security risk. Caspian basin and Central Asian countries played a role in both of the EU concerns. The EU-Caspian energy structure could become a counterweight to Russia.

As things stand now, the geographical limits dictate three possible or already realized options of shipping Eastern Caspian energy resources to the Western Caspian. The first one is a legacy of the Soviet Union: Central Asian and Caspian energy resources being shipped through Russian territory and pipelines, to Europe. This is the status quo. The second option is to build trans-Caspian pipelines, pipelines for the transport of gas and oil, from the Eastern sea beds of the Caspian, to the Western sea beds of the Caspian, to ship the onwards to Europe. Thirdly, the 'southern route', piping Eastern Caspian natural gas and oil through over land pipelines, via Iran, to Turkey and onwards to Europe. All three options have pitfalls, drawbacks and rewards. In this conclusion, I will focus on the 'path of least resistance'.

As mentioned above the EU policy push towards supply diversification is to lessen the dependence and power of Russia. Chiefly because of that reason, the first option (piping more Caspian and Central Asian energy to Europe through Russia) is not plausible and not a viable option. The second option, building under sea pipelines, cutting through the Caspian Sea, from East to West, has great challenges of a different nature. The biggest problem with this option, is the tandem opposition of Russia and Iran. Would be deprived of a very large potential future market, the EU. Russia would not only be deprived of a 'potential future market', but it would also undermine current gas delivery volumes.

The third and final option is the southern route, piping the energy overland, from the Eastern Caspian, through Iran, to Turkey and onwards to the EU. This is the path of least resistance.

There are already pipelines between Turkmenistan and Iran and between Iran and Turkey. Although those pipelines don't have nearly enough capacity, parallel lines can be built. Routing through Iran solves two crucial problems. Firstly, it lessens dependence on Russian energy supplies. As such, it gives the captive Turkmen and Kazakh export markets a big breather. Their oil and gas can even be sold through the Persian Gulf ports. Secondly, it solves the insurmountable problem of double/tandem Russian-Iranian opposition to Caspian Sea pipelines.

The EU has enough power to deal with Iran (mostly economically), but less with Russia. Iran has a population of 80 million and cultural, historical links to the other Caspian littoral nations. Also, it give those small countries a viable alternative vis a vis Russia, in order to balance their foreign relations. As such, this EU policy, if executed well, could two birds with one stone: not only lessen dependence on Russian gas/oil (transit), but also to lessen Russia's influence in the littoral nations. That will force Russia to negotiate better prices in the future. As a side-bonus: Iran would be invested in behaving itself in the region and even in the middle east. Because being a reliable transit country for the first few years, would make EU policy heads open toward purchasing large quantities of Iranian gas, running along parallel lines, in the future. If executed well, this solution will catch three birds with one stone for the EU.

REFERENCES

1. British Petroleum, 2012. Statistical Review of World Energy, date of views 15.12.2016 http://www.bp.com/statisticalreviewIbidem
2. M.S. Crandall Energy, Economics, and Politics in the Caspian Region, Dreams and Realities.2006. Westport, Praeger Publishers. pp:120-3
3. G.Cenaks, 2010. Energy resources in foreign policy, theoretical approach. Baltic Journal of law and politics, 3(1):27
4. K.N. Waltz, 1979.*Theory of International Politics.* Addison-Wesley: Reading
5. A. Moravcsik,1997. Taking Preferences Seriously: A Liberal Theory of International Politics. International Organization,51 (4), pp:513-553
6. G. Luft, A. Korin, 2009. Realism and Idealism in the energy security.eds., Energy security challenges in the 21st century. A reference handbook united states of America: ABC-CLIO,pp:335-553
7. BP Statistical Review of World Energy, 2015. Date of views 10.12.2016 bp.com/statisticalreview
8. G. Cesnakas 2010, Energy resources in foreign policy. Atheoreticla approach. Baltic journal of law and politics, 3(1):
9. Anis H. Bajrektarevic, 2015.The Caspian Basin: Legal, Political and Security Concerns, Pipeline Diplomacy and Implications for EU Energy Security. Asia-pacific research and training network on tarde working paper,149.pp:2.
10. M.S. Crandall Energy, Economics, and Politics in the Caspian Region, Dreams and Realities.2006. Westport, Praeger Publishers. pp:120-3
11. Statistical Review of World Energy 2009. Date of views 20.12.2016 http:www.bp.com/liveassets/bpinternet/globalbp/reports and publication/ststisticalenergyreview
12. Gerhard Mangott 2010. EU Gas supplies security: Russian and EU perspectives, the role of the Caspian the Middle East and the Magheb countries, research report №367, Pp:45-46
13. Scalability as Drawn', Azerbaijan 2012: The Business Year, Azerbaijan Presidential Administration/The Business Year, Baku, 2012. Date of viewshttps://www.thebusinessyear.com/Azerbaijan
14. Dekmejian, H.H.Simonian2003. Troubled Waters. The Geopolitics of the Caspian Region. New York, I.B.Tauris. p:79-83
15. M.P.Croissant, B. Aras, 1999. Oil and Geopolitics in the Caspian Region. Westport, Praeger Publishers, p:29
16. Reducing European Dependence on Russian Gas: distinguishing natural gas security from geopolitics, 2014. (OIES PAPER), p:24
17. S. Pirani, S, 2012. Central Asian and Caspian Gas Production and the Constraints on Export, (OIES Working Paper), p:69 date of views 22.12.2016 http://www.oxfordenergy.org/2012/12/central-asian-and-caspian-gas-production-and-the-constraints-on-export/
18. R. Kandiyoti, 2008. What price access to the open seas? The geopolitics of oil and gas transmission from the Trans-Caspian republics, (Central Asian Survey) 27(1): pp.75–93
19. L.Maruelle, J. Mankoff, 2016. The European Union in a reconnecting Eurasia Foreign economic and security interests, 2016. Lowman and littlefield press, p: 24

Information about the author:

Aigerim Ibrayeva Lecturer at the higher school of social Sciences and Humanities, Astana International University, Nur-Sultan, The Republic of Kazakhstan, aigerimibrayeva7@gmail.com, +77078553694