Tutar, Hasan; Sarkhanov, Teymur; Guliyeva, Nigar

Article

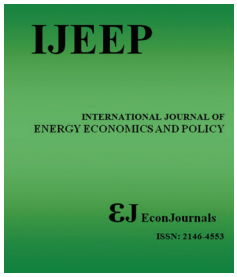
Eastern Mediterranean area in energy security of the European Union : from sea border issues to economic conflicts of interest

International Journal of Energy Economics and Policy

Provided in Cooperation with:
International Journal of Energy Economics and Policy (IJEEP)

Reference: Tutar, Hasan/Sarkhanov, Teymur et. al. (2022). Eastern Mediterranean area in energy security of the European Union : from sea border issues to economic conflicts of interest. In: International Journal of Energy Economics and Policy 12 (1), S. 332 - 341. https://econjournals.com/index.php/ijeep/article/download/12602/6233. doi:10.32479/ijeep.12602.

This Version is available at:
http://hdl.handle.net/11159/8572



International Journal of Energy Economics and Policy

ISSN: 2146-4553

available at http: www.econjournals.com

International Journal of Energy Economics and Policy, 2022, 12(1), 332-341.

Eastern Mediterranean Area in Energy Security of The European Union: From Sea Border Issues to Economic Conflicts of Interest

Hasan Tutar[1], Teymur Sarkhanov[2]*, Nigar Guliyeva[2]

[1]Istanbul Commerce University, Istanbul, Turkey, [2]Department of Economics and Business Administration, Azarbaijan State University of Economics, Baku, Azerbaijan. *Email: teymur.sarkhanov@gmail.com

Received: 05 October 2021 **Accepted:** 22 December 2021 **DOI:** https://doi.org/10.32479/ijeep.12602

ABSTRACT

The interdependence experienced on a global scale today has gained more importance with the increasing demand for energy resources. The situation of interdependence may cause various conflicts due to the differences in strategy between countries regarding access to energy resources. In this destructive competitive environment, hydrocarbons, especially natural gas, continue to be an essential means of competition as a strategic energy source. This situation makes the European Union and the countries that are the suppliers of the energy demand of the Union and the transition countries dependent on each other. This situation of interdependence makes energy resources the most important policy tool. Russia, one of the energy suppliers of European states, uses this advantage as an essential political pressure tool. European Union countries turn to alternative resources and areas to reduce dependency in the face of this situation. In recent years, the Eastern Mediterranean basin has been added to these areas. With the discovery of significant hydrocarbon resources in the Eastern Mediterranean, the importance of this region for European countries is increasing. However, this situation causes maritime border disputes and geopolitical conflicts between the countries of the region. This conceptual study emphasizes the solution of problems related to cross-border hydrocarbon resources and the extent to which natural gas reserves in the Eastern Mediterranean will be an alternative to Russian natural gas.

Keywords: EU Energy Security, Eastern Mediterranean Gas Reserves, Sea Border Issues, Exclusive Economic Zone
JEL Classifications: P28, P48, K32

1. INTRODUCTION

In terms of energy consumption, it ranks third after the European Union (EU), the United States (USA), and China. Due to the active integration process, the enlargement of the European Union and most Eastern European countries were part of the Soviet Union's energy supply system. This situation continues today as a unified European energy supply problem (Movkebayeva, 2013). Since its establishment, the European Union continues to be dependent on foreign sources to meet its energy needs. It buys oil from OPEC countries and Russia and gas from Russia, Norway, and Algeria. Russia meets nearly all of the natural gas needs of Finland, Bulgaria, and Hungary, along with Estonia, Latvia, and Lithuania, known as the Baltic Triad. EU countries pay an average of 350 billion Euros per year to meet their ever-increasing energy needs. While the energy costs of the Union continue to increase, the member states of the European Union, which are looking for ways to diversify their energy resources and supply channels, need to act together (Güneş and Arslan, 2018). The European Union is dependent on Russia for the supply of energy. There are various fluctuations in the European Union-Russia relations due to Russia's encroachment on Ukraine and the European Union's opposition to it. In this process, Russia is trying to secure its role as an influential actor by using its energy card in political and economic matters. For this reason, Russia has not accepted the European Union Energy Charter, which is one of the defining documents in the European energy policy and has energy-transportation disputes with Ukraine and Belarus (Movkebayeva, 2013).

Rising energy prices and global energy demand, which is expected to increase by approximately 60% over the next two decades, are causing great debate about handling energy needs in the future. For the 27 member states of the European Union, energy has become a priority part of their security. Energy accounts for approximately 50% of the European Union's imports. European Commission experts predict that this rate may increase to 65% by 2030 (Commission of The European Communities, 2007). In recent years, to reduce the need for energy and dependence on Russia, the European Union has set a strategic goal to find new energy sources and ensure energy security in this way. Recently, there have been new developments that may cause the European Union policies to be redefined. The Eastern Mediterranean Energy Area's geographical proximity to the European Union and the fact that hydrocarbon reserves are essential for the EU's energy security increase the strategic importance of this region. The presence of large gas deposits in the Eastern Mediterranean area also makes this region a conflict area. The long-standing Turkish-Greek and Arab-Israeli conflicts in this region gained a new dimension with discovering energy resources. Adding the oil and gas factor to regional conflicts deepens the disagreements (Rubtsova, 2014).

The discovery of essential hydrocarbon deposits in the Eastern Mediterranean region deepens Turkish-Greek and Arab-Israeli conflicts. The Palestinian-Israeli and Lebanese-Israeli conflicts are spreading in the region for new geopolitical reasons—the particular geopolitical importance of the Eastern Mediterranean region. Today, large hydrocarbon producers such as Persian Gulf countries, Central Asia and Russia determine the direction of the European Union, which is dependent on foreign energy. The proximity of the Mediterranean energy field to transit routes increases its importance in terms of energy potential and global terms (Rubtsova, 2014). The Mediterranean energy field should be evaluated within the framework of the European Union-Russia relations to diversify gas supply. The political crises in Syria and Ukraine and the discovered and probable hydrocarbon reserves of Central Asia affect the strategies of global actors in the Eastern Mediterranean energy field. Eastern Mediterranean energy resources cause the European Union to turn into a new strategic action area in reducing its energy dependence on Russia.

One of the primary founding purposes of the European Union, one of the most important production regions of global trade, is to manage energy resources under the Union's roof and create a standard energy policy. For this purpose, as the first example of the distribution of energy resources globally, the "European Coal and Steel Community" was established in 1951, and then the "European Atomic Energy Agency" in 1957. This institution is an essential factor in laying the foundations of the European Union, meeting the energy needs of European countries, and ensuring its continuity. Although the European Union, which is the second-largest economy in the world after the USA, consumes about one-fifth of the energy produced in the world, its energy reserves are far below this rate. This situation makes the Union dependent on foreign energy. As a precaution, the Union uses portfolio diversity, known as the "energy mix." The dams of Austria, the coal mines of Poland, the nuclear power plants of France, the oil wells of the North Sea, and the natural gas fields of the Netherlands and Denmark can be cited as examples of energy diversity in the European Union region (Güneş and Arslan, 2018).

The European Union's dependence on foreign energy suppliers such as Russia, North Africa, Norway, and the Middle East affects its political and strategic decisions. The dependence of the European Union on this country during the Soviet Union period is not a new situation, and Russia's use of the European Union's energy needs economically and politically makes energy a strategic problem for the European Union (Biresselioğlu, 2011). The European Union's dependence on energy affects its economic relations with Russia. While Russia has significant energy resources, the European Union consumes these resources, forcing both powers to produce economically and politically balanced policies.

2. HYDROCARBON RESOURCES AS RUSSIA'S TOOL OF POLITICAL PRESSURE

While Russia ranks sixth globally in oil reserves, it ranks first in natural gas reserves (BP, 2018). It is also the world's second-largest oil and natural gas exporter (Caşın and Kısacık, 2018). According to the US Energy Information Administration (EIA) data, Russia has the highest proven natural gas reserves globally, with 47.80 trillion m³. Finally, the data updated on August 8, 2020, is a total of 203.14 trillion m3 proven natural gas reserves in the world. The country with the highest proven natural gas reserves in 2019 was Russia with 47.80 trillion m³ (approximately 24% of the world's reserves), Iran with 33.80 trillion m³ natural gas reserves, Qatar with 23.86 trillion m³ and 13.44 trillion m³. The USA, with its m³ reserve, follows it. Although the USA ranks 4th in terms of natural gas reserves, it was the country that produced the most natural gas (920.9 billion m³) in 2019. In other words, 23.1% of the natural gas introduced to the market in 2019 was produced in the USA. Russia followed the USA with 679 billion m³ of productions. On the other hand, Iran is the second country globally with the largest natural gas reserves and ranked 3rd with its natural gas production of 244.2 billion m³ (Evrensel Gazetesi, 2020).

Energy ranks first in Russia's exports with a share of 65%. The most critical institution in Russia's energy policy is Gazprom. Gazprom owns 18% of the world's gas resources, while its share in Russia is 60% (Caşın and Kısacık, 2018). While the Russian Federation exhibits a solid independent stance, it wants to create a one-sided dependence on energy (Yurtsever, 2019). The share of energy resources in shaping Russia's foreign policy is quite large. While Russia dominated world oil production in the 1970s and 1980s, it surpassed Saudi Arabia in 2006 to become its largest oil producer (Goldman, 2008). Russia intensified the government pressure on the oligarchs who got rich after the privatizations carried out with the liberalization that spread rapidly in the 1990s (Hiatt, 2015).

Although the recent crisis between Ukraine and Russia has turned into a war between the two countries, Ukraine has some geopolitical advantages in this crisis period. Because 80% of the natural gas exported from Russia to Europe passes through

Ukraine, Ukraine has a significant geopolitical advantage. As an alternative to this geopolitical superiority of Ukraine, the Caspian Basin countries, which are hydrocarbon producers, are trying to reach European markets through alternative pipelines (Dudău and Guedes, 2016). With the West's political, technical, and financial support in this framework, two important pipeline projects, excluding Russia, are being operated. One of them is the Baku-Tbilisi-Ceyhan Oil Pipeline, which carries Azerbaijani oil to the Mediterranean, and the other is the Baku-Tbilisi-Erzurum Natural Gas Pipeline, known as the South Caucasus Pipeline. These pipelines were completed in 2005 and 2006. Later on, the Trans-Anatolian Project and the Trans-Adriatic Project were implemented as an alternative güergah in June 2018 (Kavaz, 2018). In the face of these developments, Russia is trying to respond to the search for an alternative route with the "South Stream Project" capacity of 63 billion cubic meters, which planned to pass under the Black Sea but was canceled this time in 2014. Upon the opposition of the EU, the "Turkish Stream" project came to the fore as an alternative to this project. This project was signed between Turkey and Russia in 2016 (Yurtsever, 2019).

Nord Stream is a project that will cross the Baltic Sea and connect Russia directly to Germany (Cohen, 2006). The Nord Streamline is an offshore natural gas pipeline system running from Russia to Germany under the Baltic Sea. It includes two active pipelines forming the Nord Stream from Vyborg to Lubmin near Greifswald and two pipelines under construction called Nord Stream 2 from Ust-Luga to Lubmin (Gurzu, 2019). Nord Stream's total gas capacity is 55 billion cubic meters per year. With the addition of Nord Stream 2, this capacity is expected to double to a total of 110 billion cubic meters (Elliott, 2020). All these developments raise concerns that Nord Stream pipelines will increase Russia's influence in the region. For this reason, besides the USA, many Central and Eastern European countries oppose this project (Elliott, 2019).

3. CROSS-BORDER ENERGY RESOURCES IN THE EASTERN MEDITERRANEAN

The region stretching from the Nile Valley to the intersection of the Tigris and Euphrates is often called the "Fertile Crescent" due to its favorable climate. The coastal areas of Syria, Lebanon, Israel, Palestine, Egypt, and Cyprus are part of this historical area. Today, natural gas resources in the depths of the Eastern Mediterranean increase the importance of the "Fertile Crescent" (Rubtsova, 2014). In this context, power centers that want to be effective on the energy resources of the Middle East and North Africa have included the Eastern Mediterranean geopolitics among their priority issues. Especially the fact that the Eastern Mediterranean contains important ports and dedicated transit routes such as İskenderun and Cyprus is vital in the smooth supply of Middle Eastern energy to the world. Global actors are trying to provide energy security by developing strategies over the Eastern Mediterranean (Kedikli and Çalağan, 2017).

While petroleum derivatives maintain their strategic importance worldwide and competition in this field is heating, the first natural gas field discovery in the Eastern Mediterranean occurred in Israeli waters in 1999. In the region, Israel discovered the Tamar field in 2009 with a reserve of approximately 280 billion cubic meters. This discovery was followed in 2010 by the discovery of the Leviathan field with a reserve of approximately 600 billion cubic meters. Then, in 2011, the Republic of Southern Cyprus discovered the Aphrodite field with a reserve of 129 billion cubic meters in the Eastern Mediterranean Region. In addition, approximately 220 billion cubic meters of the natural gas field was found in the Calypso field in 2018. The search for oil and natural gas continued in the region. As a result of these searches, Egypt discovered 850 billion cubic meters of natural gas reserves off the Zohr in 2015. later claimed to have discovered more than this amount in the Noor region of Egypt (SDE, 2019).

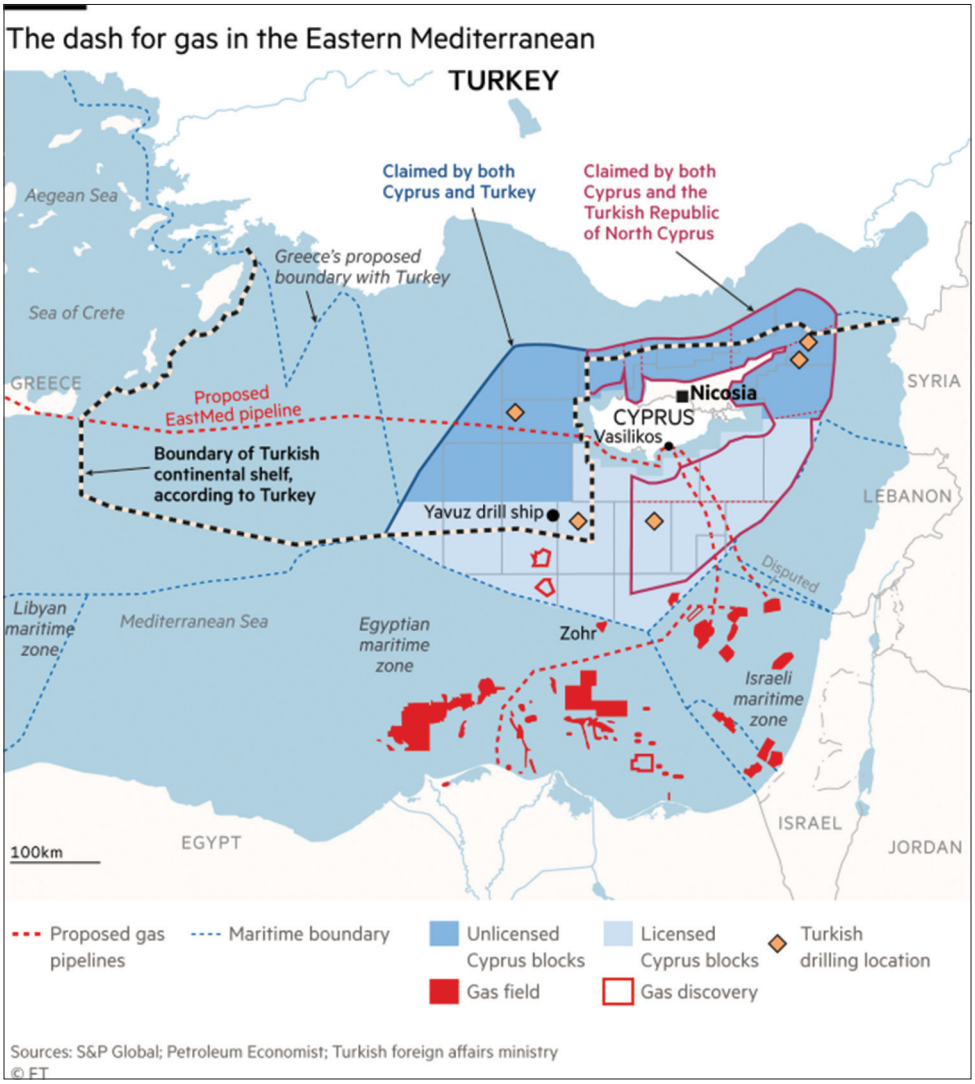
In the last 10 years, significant hydrocarbon reserves have been discovered in the deep waters of the Eastern Mediterranean. According to the calculations made by experts, the amount of recoverable reserves for the ten discovered natural gas fields reaches 2.24 trillion cubic meters. In particular, Israel's Leviathan field with 623 billion cubic meters of reserve and Egypt's Zohr field with 850 billion cubic meters of reserve are essential in showing the number of discoveries in the region in the last 10 years. While the technical success rates in these discoveries exceed 60%, the predicted commercial profitability has reached 50%. (Balkaş, 2011). While trying to secure gas markets in the Eastern Mediterranean Region, production and transportation investments continue. The natural gas of the Zohr field was transported ashore just 2 ½ years after discovery. Natural gas production from the Tamar field and its transportation to Israeli facilities near the pipeline continues. Planning activities for delivering Israel's natural gas pipeline to the coast via Leviathan, Karish, and Tanin lands continues. According to experts, these developments have a strategic importance that will cause a balance change in the global energy markets sooner or later and affect the entire region (Zakharkin, 2019) (Figure 1).

The Eastern Mediterranean is a new breaking point in the global energy map, with its hydrocarbon resources discovered and waiting to be discovered. This situation creates new conflict areas in the Eastern Mediterranean, causing various riparian countries (Karbuz, 2015). Considering the problems between riparian countries, it can be argued that it is not easy to find solutions to these problems in the short term. The new energy fields discovered in the Eastern Mediterranean bring along some problems in the region, as mentioned about Cyprus. Discovered oil reserves and natural gas deposits have brought forward the sharing of sea areas and these energy resources (Ceyhun, 2014). In the face of this situation, the disputes between the littoral countries of the Eastern Mediterranean regarding the sea areas cause an increase in tension in the region.

4. MARITIME BORDERS PROBLEMS IN THE EASTERN MEDITERRANEAN

Borders and hydrocarbon resources are strategically essential to ensure the defense capability and everyday life of any state.

Figure 1: The dash for gas in the Eastern Mediterranean



Source: Pitel and Sheppard, 2020

This is why the particular attitude states both to creating borders, regulating the border regime, and the struggle to possess hydrocarbon resources. In addition to the geopolitical importance of the Eastern Mediterranean hydrocarbon resources found in offshore Cyprus in the 2000s has dramatically increased the region's importance. Due to the new energy basins discovered and waiting to be discovered, there are some problems between the riparian countries. In particular, the Greek Cypriot Administration's Exclusive Economic Zone Delimitation Agreements with Egypt, Lebanon, and Israel, ignoring the TRNC and Turkey, led to some crises between the Ankara government and Greek administrations (Kedikli and Çalağan, 2017).

The ownership of natural gas resources discovered off the eastern Mediterranean is becoming the scene of an increasingly open contention in the region's countries, including Israel, Lebanon, Cyprus, and Turkey. Mutual Exclusive Economic Zone claims in the Eastern Mediterranean cause various political problems, such as the exclusive economic zone problems in the Chinese seas (Andrews-Speed et al., 2012). According to the 1982 UN Convention on the International Law of the Sea (1982 UN Convention on the Law of the Sea); States can declare their national territorial waters at a distance of up to 12 nautical miles and the adjacent region between 12 and 24 nautical miles as an exclusive economic zone. In addition, coastal countries can declare an exclusive economic zone that can be created up to a maximum of 200 nautical miles and a natural extension of 200 to 350 nautical miles as a continental shelf. While international waters and territorial seas indicate the sovereignty area of the state that has a coast to the sea; The exclusive economic zone entitles the coastal state to certain exclusive research and economic use rights and the right to own natural resources. The 1982 United Nations Convention on the Law of the Sea gives countries the right to explore and exploit natural resources and conduct research within 200 nautical miles. In addition, this contract gives freedom to build facilities on the sea, lay submarine cables and oil pipes (1982 UN Convention on the Law of the Sea) (Figure 2).

The width of the territorial waters is 12 nautical miles, and the continental shelf is 200 m from the shore. Greece, which accepts it as deep as possible, signed exclusive economic zone agreements

Figure 2: United Nations Convention on the Law of the Sea

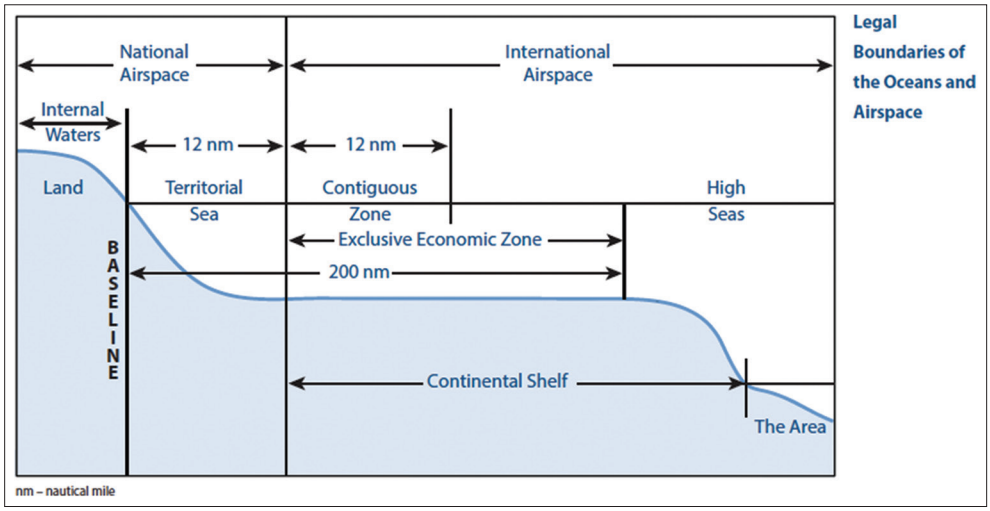
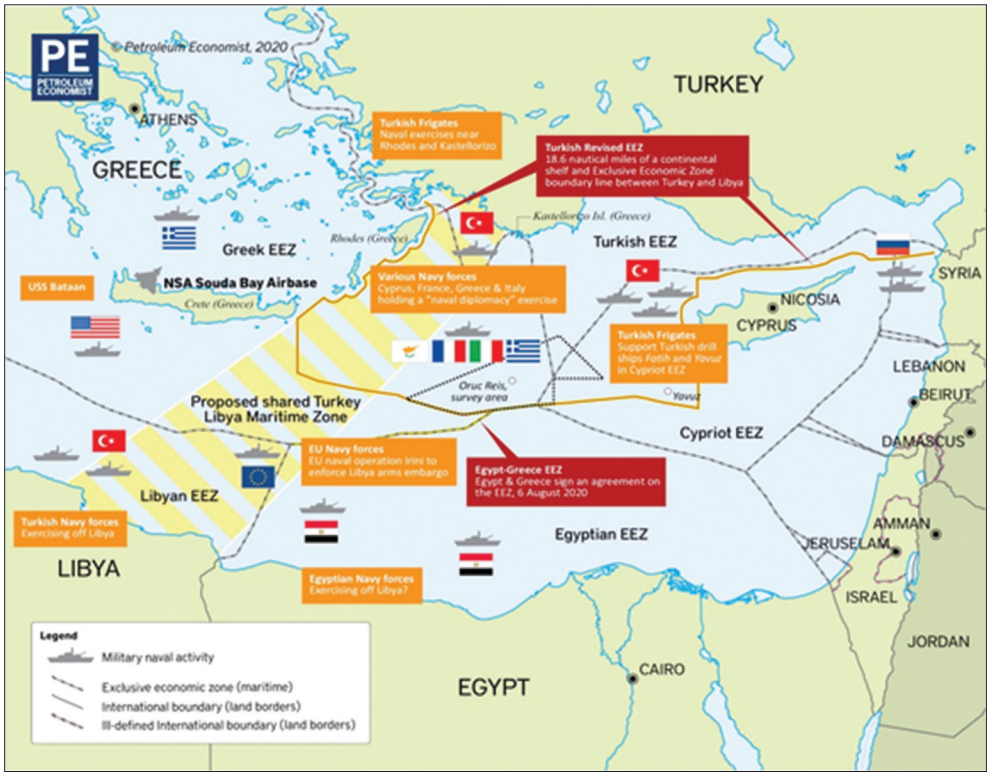


Figure 3: Exclusive Economic Zone (EEZ) Boundaries in the Eastern Mediterranean



Source: Pitel and Sheppard, 2020

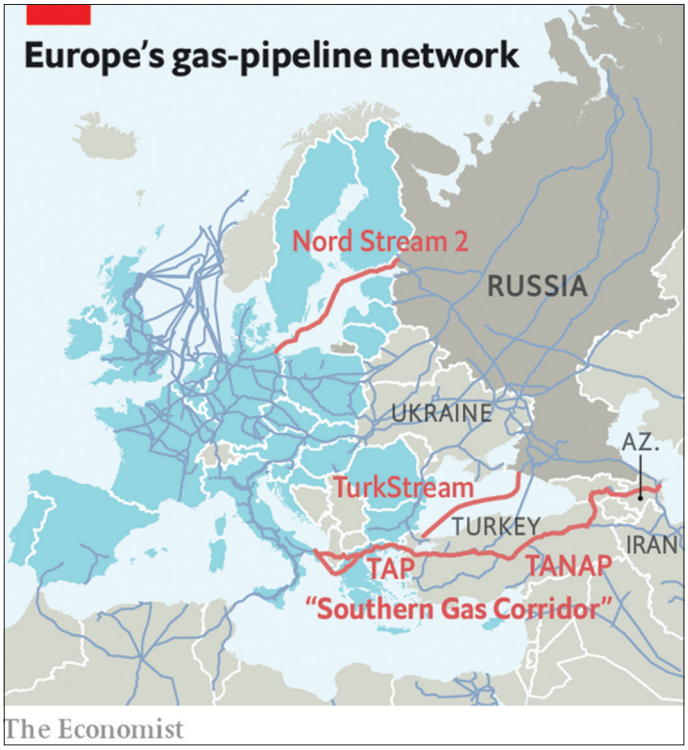
against Turkey, first with Egypt in 2003 and then with Lebanon in 2007. Likewise, the territorial waters of Greece, six nautical miles, and the border of the continental shelf 200 m from the shore. He wants to dig deep. Greece also wants the islands in the Aegean Sea to be given a continental shelf (Başeren, 2010). Greece's declaration of an exclusive economic zone with other countries on Cyprus without considering the Turkish part of Cyprus causes it to turn into a new geopolitical problem area in the Mediterranean besides the Aegean Sea (Gürel et al., 2013). These problems in the Eastern Mediterranean energy basin cause the deepening of the existing problems between Turkey and Greece (Figure 3) (Erciyes, 2012).

5. METHOD

5.1. Research Design

This research is a descriptive statistical study, and the research data were obtained from open sources. These data are used to explain a particular situation. Data analysis is an ongoing process by classifying the collected data and then analyzing it with appropriate techniques (Tutar and Erdem, 2020). Two different techniques are generally used in data analysis. The first of these is the descriptive statistical method, in which the population parameters can be directly accessed, and the parameters can be calculated directly. The other is the predictive statistical method, which is made by

Figure 4: Existing and planned pipelines



Source: Hadjiyski, 2018

statistical analyzes in the form of difference, relationship, and practical tests of the data obtained from the sample drawn from the population impartially in cases where the population parameters are not directly reached (Walliman, 2006). In the descriptive statistical method, numerical data that can be used in line with the general purpose of the research are collected, analyzed, and comments are made (Spiegel and Stephens, 2013). The data set is expressed in quantitative or graphic form to help the reader's mind map. Summarizing and increasing use-values by reducing the volume of data is another goal of descriptive statistics. This technique is suitable for this research, as it requires systematic classification, analysis, and interpretation according to research purposes. Descriptive statistics convert numbers and quantitative data obtained as a result of observations into descriptive indices. The question of "what happens" is tried to be answered in the data analyzed with descriptive statistical technique (Spiegel and Stephens, 2013). This study's descriptive statistical method was preferred because it explains a specific factual situation with quantitative indicators and is suitable for generating hypotheses for future research.

5.2. Data Collection

In the study, data suitable for descriptive statistics were collected. A literature review is mainly used to obtain a statistical result in examination studies. The scanning method can also be classified within itself. These; can be classified as historical scanning data over documents, archive analysis, and electronic data scanning over the web (Walliman, 2006; Padem et al., 2012). The data used in this research are secondary, and the research analysis is based on monitoring the quantitative data in question in a certain period. In order to see the change in the data collection process, accessible data were collected from open sources.

5.3. Analysis of Data

Data analysis is the process of drawing meaningful conclusions to answer the fundamental question of the research by processing the data collected with appropriate techniques with appropriate statistical techniques. Data analysis is an ongoing process with the classification and appropriate analysis of the collected data (Tutar and Erdem, 2020). In the data analysis, the descriptive statistical technique, the population parameters can be accessed directly and calculated directly. When data is collected for the relevant variable or variables from all units in the descriptive statistics study universe, it aims to summarize (describe) the population by using them. This is done by creating frequency distribution, drawing graphs, or calculating parameters (mass mean and variance) (Akdeniz, 2015). In order to create a mind map, the collected data were systematically organized as is done in descriptive statistical studies and arranged in tables every year. Then, the data in the tables were analyzed, inferences were made, various comments were made, and projections for the future were made.

6. RESULTS

This research gives information about natural resources' potential, extraction, import, and export. The data has been turned into tables and graphs (Table 1). While the energy suppliers of the European Union have diversified in recent years, Russia remains the leading supplier of energy products to the EU during the 2008-2018 period (Table 1). Table 1 shows the primary energy import status of the European Union EU-27, 2008-2018 (percentage of extra EU-27 imports)

In 2018, the European Union continued to depend on Russia for its heating needs. For example, 42.4% of the hard coal imports of the European Union were made from Russia. Russia has been the largest continuous supplier of hard coal to the European Union in the last 10 years, except for 2012. In 2018, the United States became the second largest supplier of hard coal to the European Union (18.6%) as an alternative to Russia. During this period, hard coal imports from Colombia to the EU increased, rising from 11.7% to 21.1% between 2008 and 2015. On the other hand, Russia is the leading supplier of crude oil exports to the European Union. In 2008, Russia's share in crude oil was 32.1%. In 2018, the relative share of the EU's crude oil supply from Iraq increased rapidly in 2008-2018, reaching 8.7%. Saudi Arabia, another supplier to the European Union's oil imports, has a share of 7.4% (Table 1).

Between 2008 and 2018, Russia's share in EU natural gas imports increased from 39.4% to 40.4%. In Table 1, Norway was the second-largest supplier of natural gas imports to the European Union. Norway's share, which was 22.0% in 2008, decreased to 18.1% in 2018. The third-largest supplier, Algeria's share, decreased between 2008 and 2018, while Qatar's share almost doubled. In 2018, the EU's dependence on natural gas continued, with almost three-quarters (70.3%) of its imports coming from Russia, Norway, and Algeria. On the other hand, nearly three-quarters (74.3%) of EU hard coal imports are made from Russia, the USA, and Colombia. Crude oil imports of the European Union are made from essential suppliers such as Russia, Iraq, and Saudi Arabia.

The EU is heavily dependent on Russia for energy and supplies about a third of Russia's natural gas, oil, and solid fuels. According

to Eurostat data, the energy dependency ratio of European Union countries in 2018 is as high as 58.2%. Italy, one of the largest countries in Europe, is foreign-dependent in energy with 76.3%, France with 46.6%, Germany with 63.6%, and Spain with 73.3% (Eurostat, 2020). All this poses a threat to the energy security of the European Union. In addition, this dependence largely depends on Russia, which is Europe's rival and uses its energy resources as a threat. Figure 1 the current and planned powerline map in Europe is noteworthy because it shows the direction of the energy strategy (Figure 4).

The world's largest commercial market, the European Union, is trying to overcome its energy dependency and ensure its security of supply sources. For this purpose, it has determined to establish an "Energy Union" among European Union countries as a strategic goal. The primary purpose of the Energy Union, which is desired to be established in the European Union, is to pressure governments to implement the agreements they have accepted. In the face of this idea, Russia's natural gas company Gazprom is trying to consolidate its power over Eastern European countries, which have difficulty finding alternative markets. Some countries, for example, Poland, pay 40% more for natural gas than Germany. Hungary, which has good energy relations with Russia, which wants to attract such countries, does not favor the "Energy Union" plan. While France supports this plan, on the other hand, it wants to limit the areas in which the commission is involved (Güneş and Arslan, 2018). Russia tries to prevent its competitors from entering the sales markets in Central and Eastern Europe to maintain energy control (Rubtsova, 2014). According to Gazprom's data, Gazprom Export LLC supplied a total of 198.97 billion cubic meters of gas to European countries in 2019 (Gazprom Export, 2020). Western European countries and Turkey accounted for approximately 77% of the company's exports from Russia, while Central European countries accounted for 23% (Table 2).

Table 1: EU's primary energy imports and suppliers, (EU 27-2008-2018)

	Hard coal (based on tonnes)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Russia	19.9	25.8	25.5	24.2	22.1	26.6	27.7	28.5	30.8	38.1	42.4
United States	15.9	14.7	17.5	18.3	22.5	20.6	18.7	13.5	13.0	16.0	18.6
Colombia	11.7	17.0	17.7	20.5	20.9	18.2	13.8	21.1	20.4	17.2	13.4
Australia	13.3	7.9	10.9	9.1	8.7	9.8	8.3	12.1	16.7	11.8	11.8
Indonesia	7.8	8.0	6.3	6.1	5.9	4.4	4.7	4.6	3.5	3.5	3.8
South Africa	18.5	17.5	10.9	9.5	8.1	7.8	10.0	8.3	5.5	5.1	2.8
Canada	2.7	1.8	2.2	2.6	2.1	2.3	3.5	1.8	2.5	2.6	2.6
Mozambique	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.5	0.7	1.3	1.8
Kazakhstan	0.4	0.2	0.2	0.4	0.4	0.4	0.7	0.6	0.6	0.7	1.0
Others	9.8	7.2	8.7	9.3	9.4	9.8	7.2	8.9	6.3	3.7	2.0
	Crude oil (based on tonnes)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Russia	32.1	34.2	35.2	35.6	34.3	35	31.7	30	32.7	31	29.8
Iraq	3.4	3.9	3.4	3.7	4.3	3.9	4.8	7.9	8.6	8.5	8.7
Saudi Arabia	7.1	5.9	6.1	8.4	9.2	8.8	9	8	7.8	6.6	7.4
Norway	9.6	9.6	7.8	7.3	6.9	8.2	9.3	8.4	8	7.8	7.2
Kazakhstan	5	5.5	5.7	6	5.4	6.1	6.7	6.8	7	7.7	7.2
Nigeria	3.7	4.2	3.9	5.7	7.3	7.3	8.4	7.8	5.2	5.8	7.1
Libya	9.9	9	9.9	2.8	8	5.5	3.4	2.5	2.2	4.9	6.1
Azerbaijan	3.3	4.2	4.5	5.1	4	5	4.7	5.4	4.7	4.7	4.6
Iran	5.5	4.3	5.9	6.1	1.3	0	0.1	0	3	5.5	3.9
United Kingdom	5.2	5	5.6	4.6	4.5	4.2	4.3	4	4.1	4.1	3.9
Others	15.1	13.7	12	14.7	14.7	15.9	17.6	19.1	16.7	13.5	14.1
	Natural gas (based on terajoule (gross calorific value - GCV)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Russia	39.4	35.6	35.2	38.3	38.6	45.3	41.2	41.6	43.7	41.8	40.4
Norway	22.0	23.9	22.2	23.0	25.5	23.5	26.0	25.7	18.0	17.9	13.1
Algeria	15.5	14.8	15.0	14.4	14.7	13.7	13.0	11.8	13.5	11.4	11.8
Qatar	2.5	4.1	6.2	6.0	4.7	4.2	3.7	4.1	3.3	4.1	4.6
Nigeria	4.2	2.6	4.4	4.5	3.5	1.9	1.6	2.2	2.2	2.7	3.0
United Kingdom	2.8	3.4	3.8	4.3	3.6	3.1	3.3	4.2	2.8	3.0	2.4
Libya	3.1	3.1	3.0	0.8	2.1	1.9	2.3	2.3	1.4	1.2	1.2
Trinidad and Tobago	1.6	1.8	1.1	1.2	1.0	0.8	0.9	0.5	0.2	0.2	0.8
United States	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5
Peru	0.0	0.0	0.0	0.0	0.8	0.5	0.5	0.4	0.6	1.0	5.0
Others	8.9	10.6	9.1	7.5	5.5	5.2	7.4	7.3	14.2	16.2	16.6

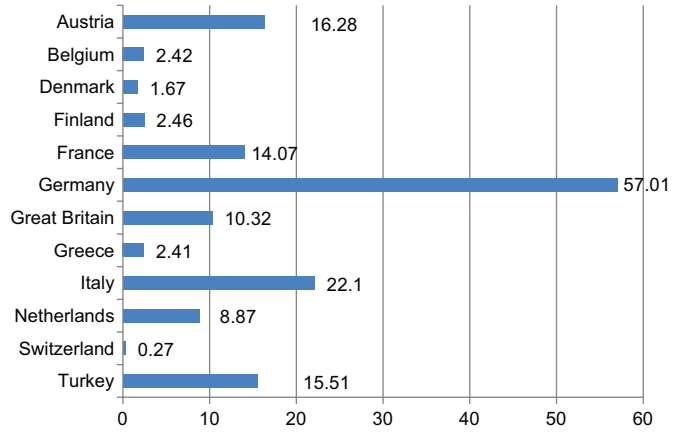
Source: Eurostat, 2020

Table 2: Natural gas exports by Gazprom export (billion cubic meters)

Year	1973	1975	1980	1985	1990	1995	2000	2005	2010	2015	2016	2017	2018	2019
Total	6.8	19.3	54.8	69.4	110	117.4	130.3	154.3	138.6	158.6	178.3	192.2	200.8	198.97

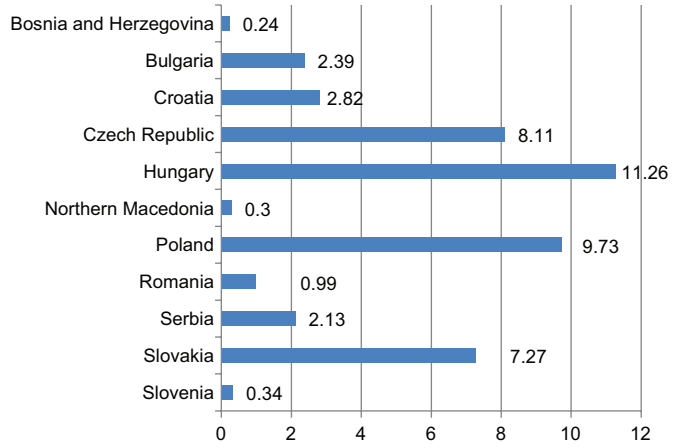
Source: Gazprom Export, 2020

Graph 1: Natural gas supplies via Gazprom Export to the countries of Western Europe and Turkey in 2019, bcm[1]



Source: Gazprom Export, 2020

Graph 2: Natural gas supplies via Gazprom Export to the countries of Eastern and Central Europe in 2019, bcm[1]



Source: Gazprom Export, 2020

The Western European petroleum derivatives market accounts for a large part of Russia's exports. Gazprom Export sold approximately 153.39 billion cubic meters of gas to regional markets in 2019. This company's largest importers are Germany, Italy, Austria, Turkey, and France (Gazprom Export, 2020).

The Eastern and Central European natural gas market is heavily dependent on Russia due to its geographical proximity. Russia's largest oil company, Gazprom Export LLC, sold approximately 45.58 billion cubic meters of gas to Hungary, Poland, the Czech Republic, and Slovakia in 2019 (Gazprom Export, 2020) (Graphic 1).

Russia's natural gas resources are an essential strategic resource in EU energy diplomacy. It is thought that the EU's dependence on Russia's oil and natural gas resources will not end in a short time. This dependency differs in terms of the energy mix and geographical location of the member states. New projects such as the Nord Stream-2 pipeline, which will extend from Russia to Germany, are expected to increase rather than reduce dependence on Russia. As the European Union grows economically and expands geographically, energy dependence on Russia is predicted to increase (Güneş and Arslan, 2018) (Graphic 2).

7. CONCLUSION

The European Union is a very limited actor in energy resources. Although there are many alternative sources for oil, it is heavily dependent on Russia for natural gas. The EU is dependent on Russia because of the affordable price of natural gas and reliable transportation routes. Since Russia is aware of the EU's increasing energy needs, it depends on many alternative pipeline projects. On the other hand, the European Union is turning to alternative energy sources and areas to reduce its dependence on Russia on energy. In this context, the European Union focuses on renewable energy resources projects and seeks alternative energy resources. With these policies, the European Union wants to prevent Russia from having an energy monopoly. The search for alternative suppliers is being tried to be invalidated by other projects and agreements of Russia.

The issue of energy dependence between the European Union and Russia, on the one hand, enables Russia to create political and economic policies in its favor. This situation forces the Union to look for new and alternative ways due to the increasing natural gas need of the European Union. About 33% of the energy consumed in the world is obtained from petroleum and petroleum products, 29% from solid fuels, and 21% from natural gas resources. China, the USA, and European Union countries consume half of the energy respectively. It is not easy to reach energy resources and transfer them to importing countries within energy supply security. Therefore, it is imperative to transfer the energy produced from reliable sources, at reasonable prices, without interruption, and that does not disrupt the competitive environment. Otherwise, energy-rich countries cannot be fully ensured if energy security can create economic and political pressure on countries that need energy. As a consumer, Russia, an energy producer, and the EU have to cooperate in this field, albeit unwillingly, by considering their own economic and political interests.

The natural gas supply of European countries is vitally important as natural gas consumption is increasing in Europe. The discovery of new deposits on Turkey, Israel, Libya, Cyprus, and Egypt in the Eastern Mediterranean created new opportunities for the EU. At the same time, there are some problems in terms of the security of supply routes. The European Union-supported EastMed pipeline project is economically expensive. It is also technically problematic as it passes through the seismically active regions of the Mediterranean. The depth of the Mediterranean in some areas is more than 3000 meters. It is not easy to repair the fault in the pipelines placed at the bottom of the sea at this depth. With gas exports to Europe, the natural gas pipeline project from Israel to Turkey is technically and economically more accessible.

However, several problems make it difficult for the European Union to benefit from the Eastern Mediterranean energy resources without being resolved. The coastal countries have not determined

1 Including financial instruments / REPO in the amount of 7.6 bcm sold in the markets of Austria, Germany, the Netherlands, Hungary, Slovakia and the Czech Republic.

exclusive economic zones in the Eastern Mediterranean area, and therefore the countries of the region are experiencing various disagreements. The second is that the European Union does not want Turkey to be a gas distribution center. Otherwise, Turkey will control the transportation of a significant amount of natural gas imported by Europe. This does not mean that Europe is dependent on Turkey after Russia. In order to overcome all these problems, one of the energy policies followed by the European Union is to meet its needs safely through multilateral international energy trade. There is a need for a multilateral, international, transparent energy trade system and legal regulations regarding this system (Dursun, 2011). There are different opinions about the uninterrupted energy circulation within the Union among the European Union countries, which have approximately 50% (Güneş and Arslan, 2018) as a region in world energy consumption. There are various disagreements about energy policies between the national governments of Russia and European Union countries and companies, especially those who want to prevent energy transfer to Eastern Europe.

It is estimated that the European Union will be dependent on natural gas up to 80% by 2030. In order to overcome this problem, the European Union commissioned the Trans-Anatolian Natural Gas Pipeline Project (TANAP), which is planned to be completed shortly and is expected to transport approximately 10-20 billion m3 of natural gas annually from the Caucasus to Europe via Turkey, instead of the South Stream pipeline requested by Russia. For the Trans-Adriatic Pipeline (TAP), which will form the European part of the project, the European Investment Bank approved the first part of the required loan on February 5, 2018 (Güneş and Arslan, 2018). The EU-supported TANAP project, more diminutive than South Stream, was launched in June 2018 (Kavaz, 2018). On the other hand, in 2014, Lithuania is diversifying its energy supply sources by signing an LNG (Liquefied natural gas) agreement with Norway and establishing an agreement to establish enough gas terminals for the Baltic countries (Güneş and Arslan, 2018). The Lisbon Treaty, which entered into force in 2009, determines the energy policy and targets followed by the European Union. The European Union tries to overcome the energy supply security within the agreement's framework, increasing competition in the energy field and protecting the environment (Güneş, 2016). The European Union sees Eastern Europe, North Africa, and the Mediterranean as new energy areas today as strategic areas of influence stem from diversifying its energy supply.

The European Union is developing various strategies to reduce foreign dependency on energy resources and ensure energy security. For this purpose, it has recently had to cooperate with Russian countries and North African countries (Güneş and Arslan, 2018). In order to get rid of this problem and the relationship of dependency, the European Union makes renewable energy investments to diversify its energy resources. On the other hand, it seeks alternative energy buyers and suppliers to reduce its energy dependency in its immediate region. The Eastern Mediterranean region, which has rich energy resources, has a strategic priority among these alternatives. The EU's dependence on Russia for the time being for its energy needs reinforces Russia's political power over the Union. As a result, the EU does not have many alternatives other than turning to alternative energy fields and producing alternative energy sources to eliminate the political pressures arising from Russia's energy dependence from being a security problem.

REFERENCES

1982. UN Convention on the Law of the Sea. (n.d.), Available from: https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf [Last accessed on 2021 Jan 31].

Akdeniz, F. (2015), Olasılık ve İstatistik. Ankara: Akademisyen Kitabevi.

Andrews-Speed, P., Bleischwitz, R., Boersma, T., Johnson, C., Kemp, G., VanDeveer, S.D. (2012), The Global Resource Nexus: The Struggles for Land, Energy, Food, Water, and Minerals. Washington, DC: Transatlantic Academy.

Balkaş, Ö. (2011), Doğu Akdeniz'de Petrol ve Doğal Gaz Gerginliği and Hükümranlık Savaşları. 2021 Tarihinde. Available from: https://www.researchgate.net/publication/314208330_Dogu_Akdeniz'de_Petrol_ve_Dogal_Gaz_Gerginligi_Hukumranlik_Savaslari adresinden alındı

Başeren, S.H. (2010), Doğu Akdeniz Deniz Yetki Alanları Uyuşmazlığı. İstanbul: TÜDAV Yayınları.

Biresselioğlu, M.E. (2011), European Energy Security: Turkey's Future role and Impact. United Kingdom: Palgrave Macmillan.

BP. (2018), BP Statistical Review of World Energy. Available from: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2018-full-report.pdf [Last accessed on 2021 Feb 21].

Caşın, M.H., Kısacık, S. (2018), Avrupa Birliği Enerji Hukuku ve Güvenlik Algılamaları. İstanbul: Çağlayan Kitabevi.

Ceyhun, Ç.G. (2014), Türkiye, Kıbrıs ve İsrail Üçgeninde Doğu Akdeniz'in Güvenlik Sorunları. Kocaeli: Uluslararası Enerji ve Güvenlik Kongresi.

Cohen, A. (2006), The North European Gas Pipeline Threatens Europe's Energy Security. (The Heritage Foundation). Available from: https://www.heritage.org/europe/report/the-north-european-gas-pipeline-threatens-europes-energy-security [Last accessed on 2021 Feb 08].

Commission of The European Communities. (2007), Communication from the Commission to the European Council and the European Parliament-an Energy Policy for Europe (SEC(2007) 12). Available from: https://www.eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52007DC0001 [Last accessed on 2021 Feb 20].

Dudău, R., Guedes, A.M. (2016), Energy Politics in the Black Sea Region. In New Regionalism or No Regionalism? Emerging Regionalism in the Black Sea Area. New York: Routledge. p69-94.

Dursun, S. (2011), Avrupa Birliğinin Enerji Politikası ve Türkiye. Ankara: Ankara Üniversitesi Basımevi.

El Wardany, S., Magdy, M. (2020), Six-nation Mediterranean Gas Group forms, without Turkey, to "Strengthen Regional Cooperation". (World Oil). Available from: https://www.worldoil.com/news/2020/9/22/six-nation-mediterranean-gas-group-forms-without-turkey-to-strengthen-regional-cooperation [Last accessed on 2021 Feb 21].

Elliott, S. (2019), Nord Stream 2 Construction in Danish Waters Under Way: Contractor. (S and P Global Platts). Available from: https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/120419-nord-stream-2-construction-in-danish-waters-under-way-contractor [Last accessed on 2021 Aug 02].

Elliott, S. (2020), Gazprom Still Eyeing Nord Stream 2 Completion by end-2020/start-2021: Report. (S and P Global Platts). Available from: https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/062220-gazprom-still-eyeing-nord-stream-

2-completion-by-end-2020start-2021-report [Last accessed on 2021 Feb 08].
Erciyes, Ç. (2012), Maritime Delimitation and Offshore Activities in the Eastern Mediterranean. Available from: http://www.mfa.gov.tr/site_media/html/maritime_delimitation.pdf [Last accessed on 2021 Feb 21].
Eurostat. (2020), Energy Production and Imports. Available from: https://www.ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports#Production_of_primary_energy_decreased_between_2008_and_2018 [Last accessed on 2021 Feb 12].
Evrensel Gazetesi. (2020), Dünyada en Fazla Doğal Gaz Rezervine Sahip Ülkeler. (Evrensel.net) Tarihinde. Available form: https://www.evrensel.net/haber/412128/dunyada-en-fazla-dogal-gaz-rezervine-sahip-ulkeler adresinden alındı [Last accessed on 2021 Feb 07].
Gazprom Export. (2020), Delivery statistics. (Gazprom Export). Available from: http://www.gazpromexport.ru/en/statistics [Last accessed on 2021 Feb 07].
Goldman, M.I. (2008), Petrostate: Putin, Power, and the New Russia. New York: Oxford University Press.
Güneş, M. (2016), Avrupa Birliğinin Çevre ve Enerji Politikalarında Doğu Akdeniz Gazının Tehdit ve İmkânları. Kıbrıs: Uluslararası Akdeniz'de Çevresel Güvenlik Konferansı.
Güneş, M., Arslan, T. (2018), Enerji bağımlılığında avrupa birliği, Rusya, Türkiye Üçgeni ve Doğu Akdeniz Alanı. International Journal of Humanities and Education, 4(7), 32-60.
Gürel, A., Mullen, F., Tzimitras, H. (2013), The Cyprus Hydrocarbons Issue: Context, Positions and Future Scenarios. Nicosia: PRIO Cyprus Centre. Available from: https://www.cyprus.prio.org/Publications/Publication/?x=1172.
Gurzu, A. (2019), Nord Stream 2 Clears Final Hurdle-but Delays Loom. (Politico). Available from: https://www.politico.eu/article/nord-stream-2-clears-final-hurdle-but-delays-loom [Last accessed on 2021 Feb 08].
Hadjiyski, L. (2018), Pipeline Politics: Europe, Russia, and Energy. (European Horizons at Princeton). Available from: https://www.europeanhorizons.princeton.edu/2019/12/pipeline-politics [Last accessed on 2021 Feb 14].
Hiatt, S. (2015), Bir Ekonomik Tetikçinin İtirafları 3: Küresel Kriz ve Büyük Resim. İstanbul: April Yayıncılık.
Karbuz, S. (2015), Enerji merkezli mısır, kıbrıs ve israil üçgeni. Enerji Panorama, 3(27), 44-46.
Kavaz, İ. (2018), Türkiye'nin Enerji Merkezi Olma Sürecinde TANAP Projesi. Available from: https://www.setav.org/assets/uploads/2018/06/199.Tanap-Projesi.pdf adresinden alındı [Last accessed on 2021 Feb 21].
Kedikli, U., Çalağan, Ö. (2017), Enerji Alanında Bir Rekabet Sahası Olarak Doğu Akdeniz`in Önemi. İstanbul: International Congress of Energy, Economy and Security.
Movkebayeva, G.A. (2013), Problema energeticheskoy bezopasnosti v Yevropeyskom Soyuze. Vestnik KazNU, 17-21. Polucheno iz. Available from: https://www.articlekz.com/article/11784
Padem, H., Göksu, A., Konaklı, Z. (2012), Araştırma Yöntemleri: SPSS Uygulamalı. Sarajevo: International Burch University Publications.
Pitel, L., Sheppard, D. (2020), Turkey Fuels Regional Power Game Over Mediterranean Gas Reserves. (Financial Times). Available from: https://www.ft.com/content/69a222d4-b37c-4e7e-86dc-4f96b226416d [Last accessed on 2021 Feb 21].
Rubtsova, A.I. (2014), Mezhdunarodnyye Otnosheniya v Regione Vostochnogo Sredizemnomor'ya i Problema Transgranichnykh Uglevodorodnykh Resursov. Sankt Peterburg: Sankt-Peterburgskiy Gosudarstvennyy Universitet.
SDE. (2019), SD RAPOR-doğu Akdeniz'de Yükselen Gerilim: Siyasi, Askeri ve Ekonomik Açıdan Yapılması Gerekenler. (Stratejik Düşünce Enstitüsü). Available from: https://www.sde.org.tr/dergi/sd-rapor-dogu-akdenizde-yukselen-gerilim-siyasi-askeri-ve-ekonomik-acidan-yapilmasi-gerekenler-yayini-10417adresinden alındı [Last accesed on 2021 Feb 21].
Spiegel, M.R., Stephens, L.J. (2013), İstatistik (Türkçeye Çeviren: Çelebioğlu Salih). İstanbul: Nobel Akademik Yayıncılık.
Tutar, H., Erdem, A.T. (2020), Örnekleriyle Bilimsel Araştırma Yöntemleri. Ankara: Seçkin Yayıncılık.
Walliman, N. (2006), Social Research Methods. California: Sage Publications.
Yurtsever, B. (2019), AB-Rusya ilişkilerinde enerjinin çatışmacı mı birleştirici mi bir rolü var? Uluslararası Türk Dünyası Araştırmaları Dergisi, 2(3), 39-55.
Zakharkin, I. (2019), Sredizemnomorskiy Gaz Toplivo Dlya Konfrontatsii? (Ritm Yevrazii) Polucheno. Available form: https://www.ritmeurasia.org/news--2019-11-16--sredizemnomorskij-gaz-toplivo-dlja-konfrontacii-45990 [Last accessed on 2021 Feb 21].