



How can the Turkish oil and gas sector improve the legal framework for supply chain sustainability?

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ABSTRACT

The second most important resources on the planet after water are oil and natural gas. Management has become increasingly complex because of the rise in worldwide demand for oil and its derivatives, the expansion of international trade, and the rigidity of the oil industry's supply chain. The Oil and Gas (O&G) supply chain encompasses all operations, from oil exploration sites to filling stations, and it encounters numerous issues when supply chain is a long and laborious procedure. Producers and transit countries must create an uninterrupted, reliable, and sustainable supply chain to meet energy needs. Turkey is the most powerful nation that serves as an energy corridor for the transportation of oil and gas because its geographic location. However, Turkey's domestic law does not contain enough provisions to strengthen and facilitate oil and gas procurement. Despite the addition of specific guidelines for carrying out the Petroleum Law. A comprehensive, new energy strategy and legislation should be adopted to meet Turkey's future energy needs in the best possible situations. This paper presents how can the Turkish oil and gas sector improve the legal framework for supply chain sustainability.

Keywords: Energy, supply chain, sustainability, Transit country, Turkey



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ABBREVIATIONS

BOTAS	Pipelines and Petroleum Transport Corporation
BTC	Baku- Tbilisi- Ceyhan Petroleum Pipeline
E&P	Exploration and production
EMRA	Energy Market Regulatory Authority
EU	European Union
GDPA	General Directorate of Petroleum Affairs
ITP	Iraq- Turkey Petroleum Pipeline
LNG	Liquefied Natural Gas
MENR	Ministry of Energy and Natural Resources
MEUP	Ministry of Environment and Urban Planning
NGML	Natural Gas Market Law
O&G	Oil and Gas
SCM	Supply Chain Management
SSCM	Sustainably Supply Chain Management
TANAP	Trans-Anatolian Natural Gas Pipeline
TPAO	Turkish Petroleum Corporation

1) INTRODUCTION

The oil industry is one of the essential elements of the world economy and has a powerful impact on the expansion of other industries; for example, this energy source is used in many areas, such as powering cars, providing electricity to heat homes and water, processes that remove chemicals used in modern medicine and household cleaning products.¹ As energy needs increase, it affects the environment and the economy. Greening the oil and natural gas supply chain against the increasing climate crisis will be necessary for maintaining the sustainability of this supply chain. This study helps to understand that when the global crisis in energy supply is considered, energy-dependent countries such as Turkey should attach importance to the sustainability of the oil and natural gas supply chain and that sustainability is a vital issue in the face of such crises. In order to solve the crises, it is essential to ensure the supply process and sustainability of the oil and natural gas chain in legal dimensions. As Turkey remains in a transit position between producer and consumer countries, the way to increase the legal sustainability of the supply chain in the Turkish oil and gas sector is through the regulation of new and detailed laws in domestic law. This study aims to help increase sustainability in the legal framework in the oil and gas sector by examining the effects of existing laws and suggesting legislative improvements. For this purpose, the theoretical and practical resources related to the subject have been scanned in terms of subject, the reports of the organizations that regulate the market and are effective in the market and the legislations related to the market have been examined. This study uses the Turkish Petroleum Law, the Turkish Petroleum Market Law and the Turkish Natural Gas Market Law as the primary source. Then, the study includes previous research in the energy field and reports from private and public institutions. In the first part of this study, the concepts of sustainability and supply chain will be explained, and then the general challenges in the supply chain process will be mentioned. Then, the main subject of the thesis, the Turkish oil and gas sector and the problems in the supply chain will be examined within the legal framework. Finally, what can be done to improve the supply chain, what the current energy policies can be and how to ensure the sustainability of the supply chain will be discussed.

2) WHAT IS THE SUSTAINABILITY AND SUPPLY CHAIN IN OIL AND GAS SECTOR

A. Sustainability

Sustainability is at the heart of understanding the Oil and Gas sector.² The Oil and Gas industry has a primary role in successful sustainable improvements because its products using in economic and social workouts.³ The term sustainability in O&G sectors should not indefinitely imply the extraction/production of O&G.⁴ The main idea of sustainability connects to "balancing environmental, economic and social concerns" eventually.⁵ Economic sustainability is to provide economic development by protecting the environment and people.⁶ It guides efficient resource consumption by minimising resource use's adverse effects.⁷ Environmental sustainability is concerned with protecting natural resources, such as minerals and the atmosphere, without which human beings would not exist.⁸ Social sustainability can be considered an element that can be viewed as human rights, institutional strength, environmental justice, and personal consumer or moral issues.⁹

The legislator is one of the effective providers of sustainability practice in any industry organization.¹⁰ Legal regulations can provide the necessary support for the more efficient implementation of sustainability.¹¹ Overall, sustainability is the guiding principle of the policies in the Oil and Gas sector of the twenty-first century and it is associated with resource protection, long-term sustainability, corporate

¹ Svetlana Lisitsa and others, "Supply-chain Management in the Oil Industry" (2019)110 E3S WC 1.

² Wan Nurul Karimah Wan Ahmad and others, "Sustainable Supply Chain Management in the Oil and Gas Industry" (2015) 23 BIJ 1423.

³ Wan Nurul Karimah Wan Ahmad and others, "Commitment to and Preparedness for Sustainable Supply Chain Management in the Oil and Gas Industry" (2016) 180 JEM 203.

⁴ Bhaskar B. Gardas and others, "Determinants of Sustainable Supply Chain Management: A Case Study from the Oil and Gas Supply Chain" (2019) 17 SPC 241.

⁵ Ahmad and others, "Commitment to and Preparedness for Sustainable Chain Management in the Oil and Gas Industry" 203.

⁶ Tijiani Abubakar, "A study of Sustainability in the Oil and Gas Supply Chain" (DPhil Thesis, University of Central Lancashire 2014) 33.

⁷ Abubakar, 34.

⁸ Abubakar, 36.

⁹ Abubakar, 38.

¹⁰ Abubakar, 40.

¹¹ Abubakar, 41.

survival and competitiveness.¹²

B. Supply Chain

The supply chain plays an essential role in maintaining the Oil and Gas industry.¹³ The supply chain has three value streams; upstream, midstream and downstream.¹⁴ The upstream consists of exploration and production activities, while the midstream consists of a distribution system consisting of pipelines and tankers to transport the crude oil to the refinery facilities.¹⁵ The downstream includes the refining, marketing, wholesale and retail stages and forms the final step of the system.¹⁶ Good supply chain management can improve the efficiency of an oil production facility and its supply.¹⁷ A company in the supply chain depends on its upstream suppliers and downstream distributors as the flow of materials, information and capital throughout the supply chain.¹⁸

The O&G industry is part of the global supply chain that includes international and national transportation, export and import services, so it is an area where sustainability is important in Supply Chain Management (SCM).¹⁹ Sustainable Supply Chain Management (SSCM) is "the achievement of an organization's social, environmental and economic objectives through the systematic coordination of corporate business processes to improve the company's strategic and long-term economic performance".²⁰ Adopting SSCM will improve the efficiency of exploration, production, and distribution and decrease potential accidents.²¹

i. Upstream

The upstream segment of the oil and gas business, also known as exploration and production (E&P) activities, involve operations related to the exploration, recovery and production of crude oil and natural gas.²² Upstream oil and gas operations detect deposits, drill wells, recover raw materials from underground, and include related services such as rig operations, feasibility studies, machinery rental and extraction chemical supply.²³

ii. Midstream

Midstream includes the infrastructure used to transport crude oil and petroleum products and primarily covers facilities and processes located between the upstream and downstream oil and gas segments.²⁴ In most cases, oil and gas reserves are not located in the exact geographic area as refinery assets and significant consumption areas, so transport is a large part of mid-range activities and may include the use of pipelines, truck fleets, tanker ships and railcars.²⁵

iii. Downstream

Downstream deals with the processing, transportation and selling of refined products made from crude oil.²⁶ Downstream provides thousands of products to end-user customers worldwide, including gasoline, diesel, jet fuel, heating oil and road asphalt.²⁷ Downstream operations include refineries and marketing, and these services convert crude oil into usable products such as gasoline, fuel oil and petroleum-based

¹² Abubakar, 24.

¹³ Gardas and others, 241.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Lisitsa and others, 1.

¹⁸ Ibid.

¹⁹ Gardas and others, 241.

²⁰ Wan Nurul Karimah Wan Ahmad, and others "An Integrity Framework for Sustainable Supply Chain Management Practise in the Oil and Gas Industry" (2017) 60 JEM 578.

²¹ Gardas and others, 241.

²² Lisitsa and others, 6.

²³ Ibid.

²⁴ Lisitsa and others, 7.

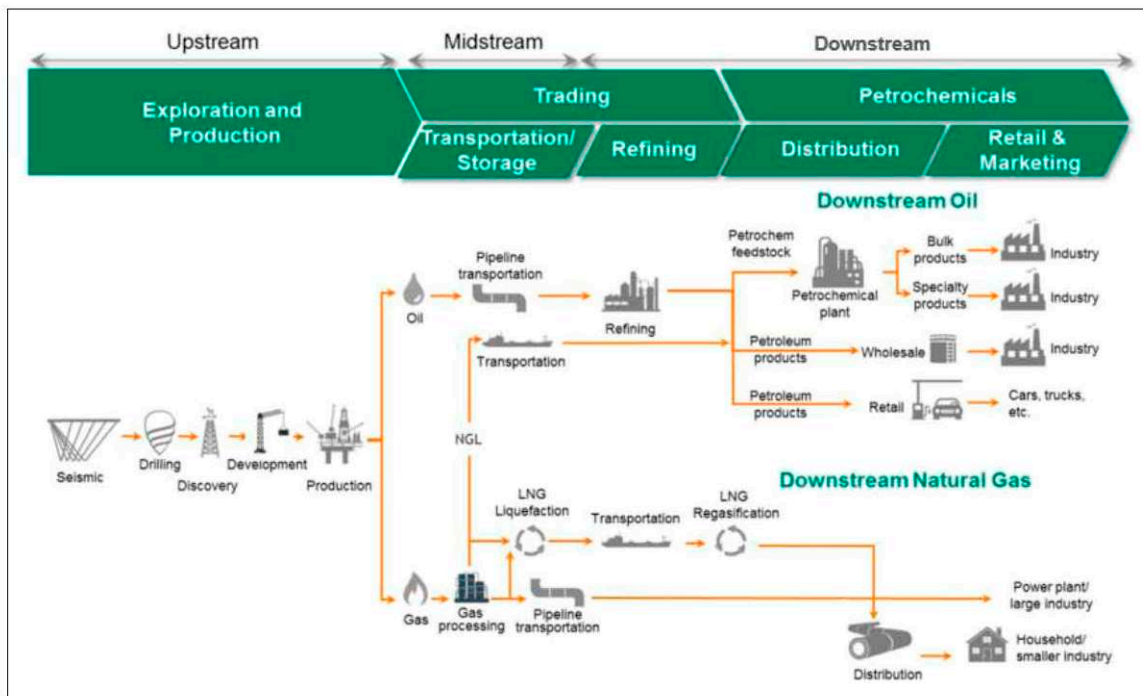
²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid.

products.²⁸

Table 1: Oil and Gas Value Chain²⁹



3) SUPPLY CHAIN AND CHALLENGES IN OIL AND GAS SECTOR

The supply chain plays an essential role in maintaining the Oil and Gas industry; it concerns the value chain from oil exploration areas to fuel stations.³⁰ Recently, there have been concerns that the oil and gas industry may have entered an era of scarce resources; however, there is still potential consideration, including currently known and reserved reserves, increased scope for recovery from existing fields with new technologies, and more potential discoveries.³¹ Therefore, the challenge facing the oil and gas industry is not whether there are enough resources but how to put those reserves into production and get the outcomes to consumers at the lowest possible cost.³²

Each area in the supply chain represents a significant challenge.³³ In this process, besides the risks such as terrorist threats and natural disasters, oil and gas also include legal risks such as loss of confidence in the company and loss of productivity.³⁴ In general, some commonalities will apply to the oil and gas industry as a whole. Issues such as political approval and decision making, applicable legal framework, international oil price, capital-intensive nature of the industry, the geographical scope of activities are factors that increase the level of legal risk for international oil and gas companies.³⁵ The European Union has various policies on sustainable energy.³⁶ For instance, legal frameworks such as the sustainable finance package are being created in the EU oil and gas sector for the reasons mentioned above.³⁷ Countries in the European Union should benefit from activities on a national scale,

²⁸ Ibid.

²⁹ Eloy Alvarez and others, 'The Oil and Gas Value Chain: A Focus on Oil Refining' (2018) 46 CO 3.

³⁰ Gardas and others, 241.

³¹ Christopher M. Chima, "Supply Chain Management Issue in the Oil and Gas Industry" (2007) 5 JBBER 27.

³² Chima, 28.

³³ Raed Al Hussain and others, "Supply Chain Management in the Petroleum Industry: Challenges and Opportunities" (2006) 1 IJGL&SCM 92.

³⁴ Shepherd and Wedderburn LLP, 'Legal Risks in the Oil Industry' (OGEL 10 August 2007)

<<https://shepwedd.com/knowledge/legal-risks-oil-industry-0>> accessed 10 August 2007.

³⁵ Ibid.

³⁶ Yildiz Munevver Koc and Muhammed Garip, "Relationship between Sustainable Energy and Environment in Turkey and Europe" (2008) UTES 153.

³⁷ Dr. Gokce Mete and Dr. Sergei Vinogradov, "Legal and Economic Challenges to the Future of Natural Gas Export Infrastructure in the EU in the Light of its Policy on the Energy Transition" (2019) 17 OGEL 1.

make better use of the internal energy market, for example, liberalize gas markets and make them competitive.³⁸

Appropriate government intervention can increase the performance of the oil and gas industry supply chain, making green improvements and thereby making it more sustainable.³⁹ For example, the government can provide financial incentives to strengthen competition in the market, tax those who do not comply with environmental regulations.⁴⁰ In a significant part of environmental problems, the responsibility belongs to multinational companies, who are in an important position in solving the problems.⁴¹ For example, oil companies in Turkey are subject to specific environmental conditions and must obtain environmental licenses before starting their work.⁴² In conclusion, as energy demand continues to increase, governments, suppliers, and customers must benefit from working together and evolving to ensure the sustainability of the O&G supply chain.⁴³

4) TURKISH OIL AND GAS SECTOR AND CHALLENGES

Turkey, with a surface area of 781,000 km², is located between Europe and Asia, and due to this geographical location, it has an essential role as a natural 'energy corridor' between the primary oil and natural gas produced in the Middle East and Western countries.⁴⁴ The EU imports 70% of its natural gas and will therefore require the transportation of this natural gas from both the Caspian Basin and the Middle East via Turkey.⁴⁵ For instance, The implementation of The Trans-Anatolian Natural Gas Pipeline (TANAP), which carries Azerbaijani gas to Europe via Turkey, and the Turk Stream, which carries Russian gas to Europe through Turkey, has brought Turkey's strategic importance to the fore.⁴⁶ Turkey's primary energy supply in 2020 was oil with approximately 30%, followed by natural gas with 27%.⁴⁷ In 2021, a daily average of 69 thousand v/g crude oil was produced in Turkey.⁴⁸ However, this is not enough to meet its energy needs, and Turkey is a country dependent on oil imports.⁴⁹ As in oil, Turkey produced a total of 415 million m³ of natural gas in 2021, but this production was insufficient to meet the energy consumed and its dependence on natural gas imports continued.⁵⁰ Regarding satisfying oil and natural gas in Turkey, exploration activities in the Mediterranean and Black Sea regions are increasing.⁵¹

³⁸ Koc and Garip, 153.

³⁹ Xiang Zhang and Abaid Yousaf, "Green Supply Chain Coordination Considering Government Intervention, Green Investment, and Customer Green Preferences in the Petroleum Industry" (2020) JCP 1.

⁴⁰ Zhang and Yousaf, 2.

⁴¹ Oguzhan Bati, "Sustainable Development and Renewable Energy Sources in Turkey" (PhD, Marmara University 2013) 59.

⁴² Ümit Hergüner and others, "Energy: Oil & Gas" (2020) CGPG 14.

⁴³ Ahmad and others, "An Integrity Framework for Sustainable Supply Chain Management Practise in the Oil and Gas Industry" 579.

⁴⁴ K. Kaygusuz and A. Sari, "Sustainable Energy Policies in Turkey" (2011) ESPEPP 209.

⁴⁵ Mustafa Balat, "Security of Energy Supply in Turkey: Challenges and Solutions" (2010) 51 ECM 1999.

⁴⁶ Turkish Petroleum Corporation, 'Oil and Natural Gas Sector Report' (2021) <<https://www.tpao.gov.tr/file/2206/2021-petrol-ve-dogal-gaz-sektor-raporu-861629db02eb5624.pdf>> accessed 31 July 2022.

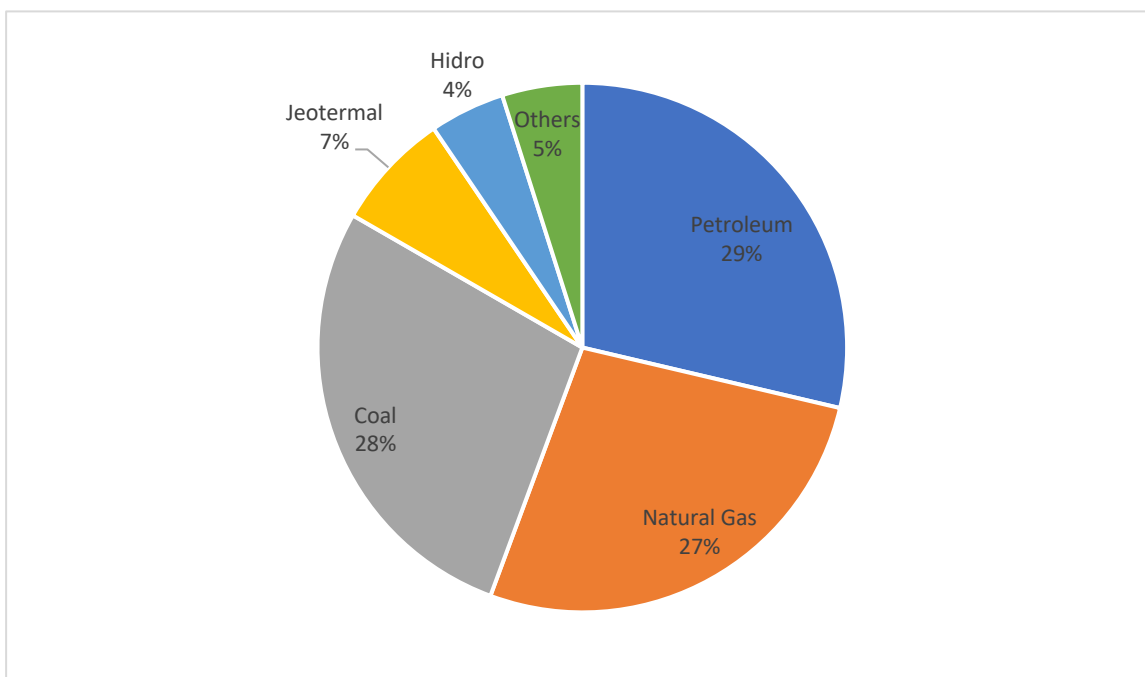
⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Ibid.

Table 2: Resource Allocation of Turkey's Energy in 2020⁵²

A. Legal Framework

To talk about the historical development of the petroleum and natural gas legislation of the Republic of Turkey, the legal scope of the sector started with the Law No. 725 on Petroleum and Gasoline Exclusivity, which entered into force in 1926, the first law of the Republic of Turkey on petroleum and its derivatives.⁵³ According to this law, the state monopolised petroleum and gasoline imports and imported products were delivered to consumers through domestic dealerships.⁵⁴ Then, in 1954, the new Petroleum Law No. 6326 was enacted.⁵⁵ According to this law, while the exploration and production of oil resources through the private sector as quickly, continuously and effectively as possible takes place, it can be said that liberal regulations are in place to meet the needs of the period.⁵⁶ However, the expected developments could not be achieved with this law and solutions were sought with various changes made in the law.⁵⁷ Today, oil exploration and production activities classified as upstream have been legalized again under Turkish Petroleum Law No. 6491.⁵⁸ On the other hand, midstream and downstream are subject to a different law, Petroleum Market Law No. 5015, and thus, it is accepted that a new era has begun for the Turkish petroleum industry.⁵⁹ While natural gas exploration and production activities are subject to Petroleum Law no. 6326, natural gas midstream and downstream activities are regulated by the Natural Gas Market Law No. 4646 adopted in 2001.⁶⁰ Afterwards, the Energy Market Regulatory Authority was established to supervise the activities for the market where the public audit was insufficient and to take place in front of the market players.⁶¹ EMRA has been given the authority to regulate and audit within the framework of this law.⁶²

⁵² Ibid.

⁵³ Mehmet Suat Kayikci, "Petroleum Market Law" (1rd edn, OIL 2019) 5.

⁵⁴ Ibid.

⁵⁵ Kayikci, 7.

⁵⁶ Ibid.

⁵⁷ Kayikci, 8.

⁵⁸ Kayikci, 2.

⁵⁹ Ibid.

⁶⁰ I. Yilmaz Aslan, "Energy Law" (1rd edn, EBYD 2009) 171.

⁶¹ Kayikci, 3.

⁶² Aslan, 160.

i. Energy policy

Turkey is faced with many difficulties in almost all fields of energy policy.⁶³ In order to develop and improve energy policies, effective communication and coordination should be developed between government institutions and energy stakeholders.⁶⁴ Turkey's energy policy tries to provide energy supply in a reliable, timely manner, taking into account the environmental impact, in a way that supports and guides the targeted growth and social development economically.⁶⁵ The government has focused on improving domestic production by utilizing public and private services and increasing efficiency by accelerating existing programs to create new investments.⁶⁶ Turkey has made various legal arrangements and joined some international agreements on climate change.⁶⁷ The Paris Climate Agreement is one of these international agreements, and Turkey has gained a new perspective in the fight against climate with this agreement and continues to progress effectively and decisively in increasing energy efficiency.⁶⁸

ii. Energy efficiency

Energy efficiency can be defined as a concept related to ensuring supply security in energy, making energy costs sustainable, increasing the fight against climate change and protecting the environment.⁶⁹ There have been significant developments in Turkey to increase energy efficiency.⁷⁰ Turkey also adopted Energy Efficiency Law No. 5627 in 2007, and the primary purpose of this law is to increase energy efficiency, reduce waste, and protect the environment.⁷¹ Under this law, it is decreed that companies plan their operational activities in line with energy efficiency and environmental issues and implement these plans.⁷² Within the scope of the law, it has been stated that public institutions are required to conduct training and information activities for energy-consuming institutions and organizations.⁷³ The law has been regulated in great detail on implementations and has brought responsibilities such as Energy Management for the management of industrial enterprises, commercial buildings above specific consumption, service buildings and public buildings.⁷⁴ For example, by law, companies are obliged to appoint an employee as an energy manager, and as a result of the research, 75% of the companies have employed energy managers.⁷⁵

B. UPSTREAM

Since Turkey's oil and natural gas needs are generally met through imports, oil and natural gas exploration activities have increased to improve domestic production.⁷⁶ In August 2020, the Turkish Government announced that it had discovered an estimated 320 billion cubic meters of natural gas in the Black Sea, and this discovery is expected to go into production by 2023.⁷⁷

The Turkish Petroleum Law and the relevant secondary legislation contain detailed provisions regarding the obligations and penalties for the upstream oil and natural gas sector participants.⁷⁸ As for natural gas, the Natural Gas Market Law (NGML) covers the import, distribution, storage, marketing, trade and export of natural gas, the license requirements for these activities and the rights and obligations of the persons concerned.⁷⁹

⁶³ Kaygusuz and Sari, 217.

⁶⁴ Kaygusuz and Sari, 218.

⁶⁵ Balat, 1999.

⁶⁶ Ibid.

⁶⁷ Hergüner and others, 14.

⁶⁸ Aynur Demir, "Turkey Evaluation at the Paris Agreement and the 26th Conference of the Parties (COP 26): Obligations and Responsibilities" (2022) 15 BDC 169.

⁶⁹ Zeynep Bereket Bas and others, 'Turkey Energy Sector Legal Status Report' (ELRI 2020) 116.

⁷⁰ Bas and others, 118.

⁷¹ Mehmet Efe Biresselioglu and others, "Interpreting Turkish industry's perception on energy security: A national survey" (2017) 67 RSER 1214.

⁷² Biresselioglu and others, 1214.

⁷³ Ibrahim Uzun, 'Turkey Energy Outlook and Energy Efficiency' (2022) 66 EMU 17.

⁷⁴ Uzun, 17.

⁷⁵ Biresselioglu and others, 1214.

⁷⁶ CMS, "Oil & Gas Laws and Regulations in Turkey" < <https://ceelegalmatters.com/oil-gas-2022/oil-gas-turkey-2022> > accessed 23 March 2022.

⁷⁷ Sera Somay and others, "Oil and Gas Regulation in Turkey: Overview" < [https://ca.practicallaw.thomsonreuters.com/5-524-3232?transitionType=Default&contextData=\(sc.Default\)&firstPage=true](https://ca.practicallaw.thomsonreuters.com/5-524-3232?transitionType=Default&contextData=(sc.Default)&firstPage=true) > accessed 1 September 2021 3.

⁷⁸ Somay and others, 5.

⁷⁹ CMS, "Oil & Gas Laws and Regulations in Turkey" < <https://ceelegalmatters.com/oil-gas-2022/oil-gas-turkey-2022> > accessed 23 March 2022.

Turkish Petroleum Law does not contain a separate definition for unconventional gas, shale gas or oil resources, but this law also covers oil non-conventional gas and oil resources.⁸⁰ For this reason, it can be said that the incentives and measures provided to oil, as defined by the Petroleum Market Law, also cover non-conventional energy sources unless expressly stated otherwise.⁸¹

The following public regulatory authorities regulate the extraction of oil and gas:⁸²

1. Ministry of Energy and Natural Resources (MENR) controls the energy sector is liable for energy policies and the transportation of petroleum.⁸³
2. Energy Market Regulatory Authority (EMRA) controls and follows energy market works, allowing licenses to market activities. EMRA's obligations are managed by the Law Regarding Organization and Function of Energy Market Regulatory Authority No. 4628.⁸⁴
3. General Directorate of Petroleum Affairs (GDPA) is the primary service department of MENR and regulatory authority upstream petroleum facilities.⁸⁵

Following National Oil or Gas Company:⁸⁶

1. The Turkish Petroleum Pipeline Corporation (Pipelines and Petroleum Transport Corporation – BOTAŞ) is a state-owned economic enterprise, including the construction and operation of oil and gas pipelines.⁸⁷ BOTAŞ does not have the authority to regulate market activities and is subject to Natural Gas Market Law No. 4646 and Petroleum Market Law No. 5015 regarding operations.⁸⁸
2. Turkish Petroleum Corporation (TPAO) is another state-owned enterprise investing in activities such as exploration, drilling and natural gas storage, as well as in these activities.⁸⁹ TPAO's activities include importing and exporting crude oil, natural gas and petroleum products, as well as the distribution and marketing of petroleum.⁹⁰

With the enacted Turkish Petroleum Law, a more liberal and open approach to investments has been adopted.⁹¹ Compared to the previous law, more of the rules imposed on the participants in the basin have found a new place, and the concept of 'national interest' has been abolished.⁹² The Turkish Petroleum Corporation (TPAO) obtained an exploration license on behalf of the state based on the concept of national interest and thus gained an advantage in applications, but TPAO's advantage was lost when it moved away from this approach.⁹³ It is argued that applying different policies instead of national interest for the Turkish economy causes economic problems in the long run.⁹⁴

According to the Turkish Petroleum Law, it has the right to obtain a license and lease it for petroleum exploration and production in private companies.⁹⁵ Thus, it can be said that foreign capital cannot be an obstacle in front of it.⁹⁶ The absence of a limit to be applied in a company's exploration license may create a monopoly of a single company, which may harm the country's security.⁹⁷

⁸⁰ Somay and others, 5.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Hergüner and others, 1.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Hergüner and others, 3.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ Herbert Smith Freehills, "A Survey Current Issues in the European Energy Sector" (9 edn EEH 2015) 174.

⁹² Freehills, 174.

⁹³ Ibid.

⁹⁴ Nurgul Cakir, "New Turkish Petroleum Law Enacted" <

<http://www.lglatt.com/Gorseller/Yayinlar/ce0d8efe13824cdda611eb9162feb443.pdf>> August 2013.

⁹⁵ Hergüner and others, 3.

⁹⁶ Umut Akin, "Turkey's New Petroleum Law: General Framework and Incentives" <

<https://www.financierworldwide.com/turkeys-new-petroleum-law-general-framework-and-incentives#.YuGuWy8w1QI>> accessed June 2014.

⁹⁷ Necdet Basa, "Concluding Statement Key Findings and Problems Recommendations for Solution", *Energy and Law* (Union of Turkish Bar Association 2014) 135.

According to the Turkish Petroleum Law, there are three types of licensing: research permit, exploration license and production lease.⁹⁸ According to Article 5 of the Petroleum Law, Research Permit allows research to collect data with methods such as geological and geophysics but does not allow drilling wells.⁹⁹ Under Article 6, the Exploration license gives the right to explore within the determined land, and if the license holder finds an oil reserve in the sought area, it is obligatory to apply for a production lease for oil development and production.¹⁰⁰ According to the 6th article of this law, the oil and natural gas exploration limits have been determined as 100,000 on land and 1,000,000 on the sea, but this limit is considered restrictive to competition in the oil and natural gas exploration.¹⁰¹ However, it can be said that this article contradicts the purpose of the law since some regions are full of licensing and face the risk of not being able to carry out any activities.¹⁰²

According to the Turkish Constitution, the right of ownership and exploration of natural resources belongs to the Turkish State.¹⁰³ However, it can be given to the lessee with specific term licenses for upstream activities.¹⁰⁴ It has to pay a one-eighth share to the state for the oil produced during this license period.¹⁰⁵ However, it is possible to say that the government share taken from the oil produced is not following the principle of legality due to the lack of essential elements that should be regulated according to the Turkish Tax Law.¹⁰⁶

Income from petroleum activities is taxable, and the sum of taxes payable by the petroleum right holder cannot exceed 55% of the licensee's income.¹⁰⁷ While limiting tax liabilities of petroleum rights holders and benefiting from various exemptions facilitates their upstream activities, it also offers various incentives.¹⁰⁸ For example, persons carrying out exploration activities are exempt from value-added tax within the scope of oil exploration activities.¹⁰⁹ However, there are explicit provisions in the Turkish tax law regarding oil and natural gas activities, as well as unclear provisions, which cause conflicts in the sector.¹¹⁰ For example, while the Turkish tax legislation has determined depreciation for oil exploration and development activities, within the scope of the Turkish Petroleum Law, MENR' Certain depreciation will be applied.¹¹¹

Today, upstream activities for exploration and production in the oil and natural gas sector do not cover a significant part of the sector, as they are not high, and therefore legal and regulatory restrictions have not been introduced, and upstream investments have been encouraged.¹¹² Thus, it is aimed to sustain oil exploration and production activities quickly and efficiently.¹¹³ Considering the number of wells in Turkey in recent years, it can be concluded that the Petroleum Law has increased oil and natural gas exploration and production activities.¹¹⁴

⁹⁸ Hergüner and others, 3.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

¹⁰¹ Hikmet Ulugbay, "What does the Turkish Oil Law Bring and What Does It Remove?" <

<https://hikmetulugbay.wordpress.com/2007/01/23/turk-petrol-kanun-neler-getiriyor-ve-neler-goturuyor/>> accessed 23 January 2007.

¹⁰² Basa, 135.

¹⁰³ Sera Somay and others, 12.

¹⁰⁴ Herguner and others, 3.

¹⁰⁵ Ibid.

¹⁰⁶ İlhami Öztürk, "Legal Nature of State Share Levied on Petroleum Production and Its Compliance with the Constitutional Principle of" (2017) 6 DP 82.

¹⁰⁷ Hergüner and others, 5.

¹⁰⁸ Umut Akin, "Turkey's New Petroleum Law: General Framework and Incentives" <

<https://www.financierworldwide.com/turkeys-new-petroleum-law-general-framework-and-incentives#.YuGuWy8w1QI>> accessed June 2014.

¹⁰⁹ Kerem Aric, "Sponsored Briefing: Fiscal Regime and Main Incentives Under Turkey's Oil and Gas Exploration and Production Legislation" < <https://www.legalbusiness.co.uk/co-publishing/sponsored-briefing-fiscal-regime-and-main-incentives-under-turkeys-oil-and-gas-exploration-and-production-legislation/>> accessed 28 April 2022.

¹¹⁰ Mustafa Fatih Boz, "Turkish Tax Legislation Regulations on Petroleum Companies Engaged in Oil Exploration and Production Activities" (2017) 27 ISMMMO 91.

¹¹¹ Boz, 91

¹¹² Hergüner and others, 7.

¹¹³ Levent Aydın, "The Economic Impact of Petroleum Royalty Reform on Turkey's Upstream Oil and Gas Industry" (2012) 43 EP 168.

¹¹⁴ Emre Özgür, "Upstream Petroleum Law and Activities in Turkey" (2016) 88 EP 136.

C. MIDSTREAM

Midstream can be defined as the activities that ensure the transmission of the produced resources to the consumers.¹¹⁵ Within the scope of these activities, oil and natural gas are collected, purified, and different products are separated and transported to processing facilities.¹¹⁶ These products are transported via pipelines and are included in the midstream activities in the supply chain.¹¹⁷ Pipeline transportation is the most widely used method for oil and natural gas transportation.¹¹⁸

For these resources to be sustainable and accessible at affordable prices, pipelines must be built between countries.¹¹⁹ While Turkey is one of the essential oil transit countries in the world, it is also increasingly involved in gas pipeline projects.¹²⁰ The transit passage of oil in Turkey was regulated by Law No. 4546 on the Transit Passage of Petroleum Pipelines in 2000.¹²¹ This law aims to ensure the implementation of international agreements to which Turkey is a party in the transit transportation of oil.¹²²

i. Transportation

Turkey is an important energy transit country in natural gas and oil transportation.¹²³ As seen in the figure, cross-border pipelines are passing through Turkey.¹²⁴

Table 3: Gas and Oil Pipeline Map¹²⁵

NATURAL GAS AND CRUDE OIL PIPELINE SYSTEMS OF BOTAS



¹¹⁵ Gurcan Gunel, "Importance of Midstream in Oil and Gas Resource Development" (2016) 3 CSRER 23.

¹¹⁶ Gunel, 23.

¹¹⁷ Ibid.

¹¹⁸ F. Nuray Altug and Isil Demirtas, "Cross border Crude Oil Pipeline Investments and Theoretical Analysis: The Case of BTC and Kirkuk- Yumurtalik Crude Oil Pipelines" (2021) 6(2) JOEEP 248.

¹¹⁹ Nuray and Demirtas, 248.

¹²⁰ Remziye Yilmaz Bozkus, "Analysis of Turkey's Role as a Possible Energy Hub" (2019) 84 GJ 1353.

¹²¹ Altug and Demirtas, 253.

¹²² Ibid.

¹²³ Bozkus, 1359

¹²⁴ Ibid.

¹²⁵ BOTAS, 'Natural Gas and Crude Oil Pipeline Map' (*Botas.gov.tr*, 2022) <<https://www.botas.gov.tr/pages/natural-gas-and-crude-oil-pipeline-map/416>> accessed 13 August 2022.

Gas Pipeline:

- I. Blue Stream Gas Pipeline is the third natural gas agreement Turkey has signed with Russia to import natural gas, and unlike the others, it carries natural gas directly to Turkey without any transit country.¹²⁶
- II. The Eastern Anatolian Gas Pipeline is a pipeline that emerged to diversify Turkey's suppliers and emerged as a result of the agreement made with Iran.¹²⁷ With this pipeline, Turkey's dependence on gas from Russia has decreased.¹²⁸
- III. Baku- Tbilisi- Erzurum Gas Pipeline, also known White Stream, aims to transport the natural gas produced in Azerbaijan to Turkey via Georgia.¹²⁹
- IV. Turkey Greece Italy Pipeline is the first pipeline project to carry Caspian natural gas to the European market via Turkey, and natural gas is transported to Europe without using the Russian infrastructure.¹³⁰
- V. Bati hattı is Turkey's first natural gas pipeline and it carries the Russian gas to Turkey.¹³¹

Transit Pipeline:

- I. Iraq- Turkey Petroleum Pipeline (ITP) is Turkey's first international pipeline that transport Iraq oil via Ceyhan to international markets.¹³²
- II. Baku- Tbilisi- Ceyhan Petroleum Pipeline (BTC) is a 1750 km pipeline starting from Baku city of Azerbaijan, passing through Tbilisi city of Georgia and reaching the port of Ceyhan.¹³³
- III. The Trans- Anatolian Gas Pipeline (TANAP) is an 1,850-km pipeline that is part of the Southern Gas Corridor system and provides natural gas transport from Azerbaijan to Europe.¹³⁴ TANAP is a significant pipeline that sets an example for other projects for a sustainable future.¹³⁵
- IV. Turk Stream is a pipeline that transmits Russian gas under the Black Sea to Turkey and Europe.¹³⁶

The Petroleum Market Law aims to carry out market activities in a competitive environment.¹³⁷ In this context, the refining, transmission and transportation operations are subject to a license issued by EMRA.¹³⁸ According to the Petroleum Market Law and the Natural Gas Market Law, a license must be obtained from EMRA to carry out the activities regulated in this legislation.¹³⁹

Under Article 4 of the Natural Gas Market Law, BOTAŞ is the owner of all existing, under construction or planned sections of the national natural gas transmission networks allowed.¹⁴⁰ Although different investors are encouraged to enter the sector, BOTAS remains an essential and dominant company.¹⁴¹ BOTAS handles the oil transportation activity, and EMRA sets the tariff, but BOTAS is the only authorized agency for oil pipeline transmission.¹⁴² In order to maintain its influential position in terms of pipelines, Turkey needs a company that can compete with the energy companies of other countries and maintain the dominant position of the public share as in many countries.¹⁴³ For this reason, it would be beneficial to combine companies such as BOTAS and TPOA with the help of the public without harming

¹²⁶ Fahrettin Tepealti, "Pipelines Transportation and Its Potential Turkey's Political Its Effects and Importance in Its Geography" (Master, Istanbul University 2009) 184.

¹²⁷ Tepealti, 187.

¹²⁸ Tepealti, 188.

¹²⁹ Tepealti, 195.

¹³⁰ Tepealti, 198.

¹³¹ Tepealti, 191.

¹³² Altug and Demirtas, 254.

¹³³ Altug and Demirtas, 253.

¹³⁴ Nurlan Mustafayev, "The Southern Gas Corridor: Legal and Regulatory Developments in Major Gas Transit Pipeline Project" (2016) 9 JWELB 378.

¹³⁵ Sonay Sahin, "The Importance and Regional Effects of Energy Pipelines in Energy Safety Policies: Example of TANAP and TR71 Region" (2020) 7(5) EJRS 539.

¹³⁶ Doganay Yilmaz, "Turkey as a Transit Country in Terms of Energy Security" (Master, Bursa Uludag University 2021) 116.

¹³⁷ Altug and Demirtas, 257.

¹³⁸ Ibid.

¹³⁹ Hergüner and others, 7

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² Altug and Demirtas, 258.

¹⁴³ Tepealti, 227

the private sector and to carry out energy policies from a single source.¹⁴⁴

The cross-border pipeline legal framework is quite complicated.¹⁴⁵ The general problem with cross-border pipelines is the lack of an overarching legal framework guiding pipeline projects.¹⁴⁶ It can be said that this situation is caused by the fact that the pipelines pass through various jurisdictions, and each country's rules are different.¹⁴⁷ There are legal problems such as third-party rights and no comprehensive legal regime to control the contracts signed by the parties.¹⁴⁸ A flexible legal framework needs to be established so that the construction of pipelines can continue stably and investors trust the project.¹⁴⁹

Considering the agreements that form the basis of the pipelines, we can talk about the Baku-Tbilisi-Ceyhan Oil Pipeline.¹⁵⁰ The agreements signed for pipelines put the signatory states under responsibility, far beyond the agreements seen in the field of international law in general.¹⁵¹ The fact that the states will bear the damage that may arise in the event of the pipeline being delayed and the oil not starting to be transported on time has enabled the international company to be in a privileged position vis-à-vis national states.¹⁵² As in the Baku-Tbilisi-Ceyhan Pipeline project, excessive contractual provisions that allow legal and judicial arrangements to be made and cause the national state to renounce its internal sovereignty increase its liability excessively.¹⁵³ There may be a risk that the balance between the parties in the agreements made within the scope of Turkey's 'energy corridor' policy could not be achieved, negatively affecting the relations between other countries for the pipelines planned to be built in the future.¹⁵⁴

According to Article 4 of the Natural Gas Law, a legal entity that wants to get a license has the economic and technical power to import.¹⁵⁵ Secondly, the source of the natural gas to be imported, the availability of information about the production and transmission facilities, the receipt of the commitments specified by the institution from a legal entity who will be stored, and finally, having the qualifications to contribute to the development and security of the national transmission system conditions are sought.¹⁵⁶ However, it is clearly understood that EMRA is given broad discretion as these conditions are not sure, and some demands are not related to being an importer, for example, the adequacy of contributing to the development of the national transmission system.¹⁵⁷ Such conditions may distort importers' competition and cause various injustices and arbitrary practices.¹⁵⁸ In Article 4 of the Law, the activities that the transmission companies are obliged to comply with are regulated.¹⁵⁹ One of the obligations written in the sub-clauses of the article is to pay attention and not hinder the system's functioning, but it is not clear what is meant by the operation of the system here.¹⁶⁰ Another obligation is that the transmission company makes a transportation contract with other importing and manufacturing companies and a delivery contract with free consumer and storage companies.¹⁶¹ However, making such a distinction here has no practical benefit and restricts the freedom of contract.¹⁶²

¹⁴⁴ Ibid.

¹⁴⁵ Ishrak Ahmed Siddiky, "The International Legal Instruments for Cross-Border Pipelines" (2014) RHIEL 308.

¹⁴⁶ Siddiky, 328.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

¹⁴⁹ Stephen Dow and other, "Cross-border Oil and Gas Pipeline and Cross-border Waterways: A Comparison Between Two Legal Regimes" (2013) 6 JWELB 114.

¹⁵⁰ Mehmet Merdan Hekimoglu, "Legal Dimension of Baku-Tbilisi-Ceyhan Pipeline Project" (2012) 63 BILIG 88.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Ibid.

¹⁵⁴ Dr. Suat Dursun, 'Energy Policy of The European Union and Turkey' (PHD, Ankara University 2011) 232.

¹⁵⁵ Aslan, 199.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

¹⁵⁸ Aslan, 200.

¹⁵⁹ Aslan, 216.

¹⁶⁰ Ibid.

¹⁶¹ Aslan, 218.

¹⁶² Ibid.

ii. Storage

Storage refers to the storage of natural gas or liquefied natural gas (LNG) to meet the deficit in case of natural gas decreases within the scope of daily and seasonal changes.¹⁶³ Turkey has recently attached importance to natural gas storage, but the storage capacity is insufficient and needs to be increased.¹⁶⁴ The reason for this problem is that due to the absence of a 'take or pay clause' in Turkey's natural gas agreements, there is a supply difference between consumption and imports, and Turkey is responsible for paying for the natural gas it does not use.¹⁶⁵ However, in a decision, The Competition Authority examined the warehousing activities and, as a good decision, stated that warehousing is an essential activity in the Shell-Turkas merger and that no situation will result calmly from the merger since the market has not yet developed.¹⁶⁶

With the 'Host Government Agreements', the security of the oil and natural gas pipelines has been accepted to be provided by Turkey for the part within the borders of Turkey.¹⁶⁷ According to Article 6 of Law No. 4586 on Pipelines and Transit of Petroleum, BOTAS is responsible for ensuring the security of pipelines.¹⁶⁸ BOTAS monopolizes the storage activity as in the transmission activity.¹⁶⁹ Legal persons must obtain a license to engage in storage activities, and within the scope of this license, they must have the technical and economic competence to store and put the gas under their disposal into service in an impartial and equal manner.¹⁷⁰ However, the issue of economic adequacy is ambiguous, concrete and objective criteria should be introduced in this regard, and detailed regulations regarding third parties' transparency and access rights are required to provide equal and impartial service.¹⁷¹

In transmission and storage activities, the right of third parties to access the service is protected, and the right of access is an exception to the contractual obligation protected by the constitution.¹⁷² However, necessary interventions must be made to create a competitive market.¹⁷³ According to Article 3 of the Petroleum Market Law, even if the license holders have granted a license exemption to the warehouses to be used for their own needs, EMRA requires a license for this use, and even if they are registered in the license, no service can be provided to third parties.¹⁷⁴ It may be more reasonable not to apply this ban to those holding refineries and distributor licenses because EMRA's failure to allow third parties to provide services, despite the explicit provision in the Petroleum Market Law, is against the law.¹⁷⁵

There is no workable plan to change the new legal framework for Petrol and gas activities, but MENR is implementing policies to increase Turkey's storage capacity and reduce reliance on imported natural gas.¹⁷⁶ Although Turkey is an essential country in oil and natural gas transportation, it has not become an energy centre in terms of sustainability.¹⁷⁷ One of the reasons for this situation is that Turkey could not provide sufficient freedom in the gas market, competition remained low, and BOTAS dominated the sector.¹⁷⁸ As mentioned above, the purpose of detailed regulation in the law harms the freedom areas of the companies, while the poorly written language and the inability to distinguish the areas that have to be regulated create various difficulties.¹⁷⁹

¹⁶³ Aslan, 227.

¹⁶⁴ Yilmaz, 149.

¹⁶⁵ Ibid.

¹⁶⁶ Mustafa Yasar Demircioglu, "State Control and Administrative Intervention of Oil Market" (PhD, Selcuk University 2012) 105.

¹⁶⁷ Yalcin Sarikaya and Hanzade Coskun, 'Turkey in Terms of Critical Energy Infrastructure Security: Concept, Institution, Analysis' (2017) 45 TWT 106. Also look, 6-08/103-29 [02.02.2006] Competition Authority.

¹⁶⁸ Sarikaya and Coskun, 106.

¹⁶⁹ Yilmaz, 227.

¹⁷⁰ Yilmaz, 229.

¹⁷¹ Ibid.

¹⁷² Demircioglu, 106.

¹⁷³ Ibid.

¹⁷⁴ Kayikci, 96.

¹⁷⁵ Ibid.

¹⁷⁶ Somay and others, 19.

¹⁷⁷ Bozkus, 1360.

¹⁷⁸ Ibid.

¹⁷⁹ Aslan, 220.

D. DOWNSTREAM

i. Petroleum

Legislative amendments made to complement the Petroleum Law and to adapt and develop the free market economy were insufficient, so a separate Petroleum Market Law was enacted to regulate downstream activities.¹⁸⁰ The purpose of the law in Article 1 of the Law is to establish a safe and sustainable formation that will harmonize the interests of consumers and parties in the market with the principles of public policy and that will ensure a transparent, equitable and efficient operation.¹⁸¹ The principle of equality is one of the obligations of licensees following the law, which means that those who operate in a competitive market are treated equally and that their activities are not disrupted by discrimination.¹⁸² The principle of clarity, which is another obligation, is a principle that essentially includes information sharing and aims to prevent corruption in various tenders.¹⁸³ The principle of competition is complementary to the principle of equality and aims to ensure freedom of competition, protection of equality of opportunity and freedom, and the protection of the consumer in social terms.¹⁸⁴ With these principles, it was desired to protect the market's sustainability.¹⁸⁵ The scope of the law covers the activities such as distribution, transportation, dealership, import and export, which are carried out only until the oil received from the country and abroad are presented to the consumers.¹⁸⁶

According to Article 2 of the Petroleum Market Law, natural and legal persons must obtain a license from EMRA to operate in the market.¹⁸⁷ Persons who will apply for a license are required to be residents in Turkey, registered in the trade registry, tax liable and not convicted of smuggled oil.¹⁸⁸ In addition, according to Article 3 of the Petroleum Market Law, it may request letters of guarantee from license holders in matters to be determined by EMRA.¹⁸⁹ However, it is illegal not to draw a framework limiting EMRA regarding this obligation.¹⁹⁰

The process of obtaining new products by utilizing different vaporization points of oil is called refining, and the refining process is within the scope of oil market activity by the Petroleum Law.¹⁹¹ The refinery license holder is permitted by law to engage in fuel oil activities with the distribution company, but whether the refiner will act discriminatory or not is essential.¹⁹² Refinery license holders are charged with responsibilities such as giving priority to the delivery of fuel and other products needed for national security, meeting the demands of the Turkish Armed Forces, and providing other companies with the conditions that they recognize for their own distribution companies, by Article 5 of the law.¹⁹³ For example, according to the law, the processing activity is the extraction of new products from petroleum and other chemical products, that is, the petrochemical activity.¹⁹⁴ In addition, biodiesel is counted as a blending product; after it was included in the scope of the processing license by EMRA, license holders who were under the licensing condition and many obligations suspended their production facilities or focused on other activities.¹⁹⁵

Although there is no market activity in the law for Mineral Oil Production, the condition of obtaining a license has been introduced.¹⁹⁶ Although mineral oil is suitable for energy production, it is taxed lower than products such as gasoline, and due to this situation, it is generally used as fuel in vehicles¹⁹⁷. Due to the differences in taxation, there has been an increase in its use other than the purpose of the product and the rate of smuggling has increased, causing damage to the country.¹⁹⁸ In order to prevent these

¹⁸⁰ Kayikci, 12.

¹⁸¹ Kayikci, 14.

¹⁸² Cengiz Ozan Ors, "The Petroleum Market in Terms of Administrative Law" (Master, Yasar University 2016) 63.

¹⁸³ Ors, 68.

¹⁸⁴ Ors, 69.

¹⁸⁵ Ors, 62.

¹⁸⁶ Kayikci, 14.

¹⁸⁷ Kayikci, 21.

¹⁸⁸ Kayikci, 29.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

¹⁹¹ Ors, 112.

¹⁹² Ors, 114.

¹⁹³ Kayikci, 44.

¹⁹⁴ Ors, 115.

¹⁹⁵ Kayikci, 49.

¹⁹⁶ Ors, 117.

¹⁹⁷ Kayikci, 92.

¹⁹⁸ Ibid.

damages and control smuggling, a national marker application has been started.¹⁹⁹

Distribution activity is defined as fuel wholesale to free users and sales to dealers.²⁰⁰ Article 9 of the Petroleum Market Law states that those who will supply crude oil and fuel oil from abroad must have a refiner or distributor license.²⁰¹ However, in the continuation of the article, there is no information regarding the purpose for which the license holders can import oil and what they will do with it.²⁰² Distribution companies to carry out their activities, they can distribute to the fuel stocks operated by their property or with the dealers to be formed by contracts.²⁰³ According to the law, the sales made by the distributors at the stations they operate are limited to fifteen per cent of the total domestic market share of the distributor.²⁰⁴ While this percentage is written as 'self-operated stations' in article 7 of the fifteen per cent limitation law, it is written as 'fuel stations in own property and operation' in article 34 of the Petroleum Market License Regulation.²⁰⁵ Despite the difference in the provisions of the regulation, the calculations regarding whether the limit was exceeded until 2011 were made on the distributor's property.²⁰⁶ The relevant regulation was amended in 2011, but the Council of State cancelled the provisions.²⁰⁷ It is wrong to limit the interpretation of the provisions of the regulation, which is based on a law that does not even include the definition of control, and this court decision is wrong.²⁰⁸

The law defines the dealership as a fuel supply activity to natural or legal persons by the fuel companies, depending on a feasibility agreement of mutual obligations.²⁰⁹ In the law, at the expiration of the dealership contract, the dealer must continue to operate in a way that is understood to be using the products of the new distributor with which he has signed the contract and must remove all indications related to the old distributor company within one month at the latest.²¹⁰ However, in the law, violation of the essential obligations and violation of the obligations of the distribution activity are separated.²¹¹ It is unclear why this distinction is made, and it is impossible to say that the distribution obligation protects a greater legal interest.²¹² The same applies to the ban on refuelling vehicles outside the station, but it is likely that this liability also covers distributor license holders; however, if there is this intention, it should be written clearly in the law.²¹³ EMRA sees dealers and imposes sanctions on the breach of these obligations.²¹⁴

According to the Petroleum Market Law, it is regulated that the prices of oil and petroleum products will be formed according to free market conditions.²¹⁵ In this direction, crude oils of different quality are evaluated in line with world prices and imported accordingly.²¹⁶ Domestic crude oil production must be purchased at the prices to be formed according to the criteria given in the law.²¹⁷ Although this situation is in line with the liberal market requirements, the sector is protected.²¹⁸ Although the law is based on price freedom, EMRA has been given the authority and duty to intervene in prices that occur under certain conditions.²¹⁹ For EMRA to intervene in prices, there must be agreements of this nature to prevent, disrupt or restrict activities or competition in the oil market.²²⁰ Therefore, high or low prices alone are insufficient for EMRA to intervene.²²¹

¹⁹⁹ Dr, Dogan Gedik, "National Marker as a Technical and Administrative Tool in Fighting Oil Smuggling" (2020) 43 TAAD 290.

²⁰⁰ Ors, 125.

²⁰¹ Kayikci, 52.

²⁰² Kayikci, 53.

²⁰³ Kayikci, 57.

²⁰⁴ Kayikci, 58.

²⁰⁵ Ibid.

²⁰⁶ Ibid.

²⁰⁷ Kayikci, 59. Also look, 2012/507 [21/03/2013] Council of State.

²⁰⁸ Kayikci, 60.

²⁰⁹ Ors, 130.

²¹⁰ Kayikci, 82.

²¹¹ Kayikci, 83.

²¹² Ibid.

²¹³ Ibid.

²¹⁴ Ibid.

²¹⁵ Kayikci, 108.

²¹⁶ Kayikci, 109.

²¹⁷ Ibid.

²¹⁸ Ibid.

²¹⁹ Kayikci, 115

²²⁰ Ibid.

²²¹ Ibid.

ii. Gas

It can be said that the purpose of Natural Gas Market law is to put an end to the monopolistic structure of the natural gas sector and to create a competitive structure while establishing a financially strong, stable and transparent basis for the market.²²² Considering the times when private sector investments in Turkey were not high enough, it reveals that the current structure of the natural gas market is not sustainable.²²³ With this law, various advantages can be obtained by ensuring that the natural gas demand will be met stably and securely, the investments to be made will increase due to the confidence in the market structure, and the use of natural gas will become widespread.²²⁴ The Natural Gas Market Law improves competition and private participation.²²⁵ The primary purpose of the law is seen as liberalizing the market structure and opening it up to competition, but it is necessary to evaluate whether the provisions are sufficient.²²⁶

Wholesale refers to the sale of natural gas to distribution companies and free consumers, and following the Natural Gas Market Law, the company engaged in wholesale must obtain a license from the EMRA for sale to be made to free consumers.²²⁷ However, wholesale also includes distribution companies of natural gas, and while it is evident that licenses are required, it is not clear why the law distinguishes them as only accessible consumers.²²⁸ Companies that want to obtain a wholesale sales license must conclude the gas supply contract and transportation contracts and share information about where they will obtain natural gas, under which transportation conditions they will sell, and whether they have sufficient technical and economic power.²²⁹ If they cannot obtain a license after making these agreements or if they are late, it can incur significant damage and cause problems in terms of the system's functioning.²³⁰ The license holders will give the necessary information to EMRA; these conditions make the licensing situation extremely risky.²³¹

The Natural Gas Market Law separates wholesalers as those who will sell to the 'distribution company' and those who will sell to the 'free consumers', but it is unclear what different regulation needs this distinction.²³² Under this distinction, companies that wholesale gas to free consumers will provide gas to their customers within seasonal, daily and hourly limits; companies that sell to distribution companies have to make plans to meet their customers' seasonal maximum natural gas needs.²³³ However, due to the system security, all the actors who give gas to the system and draw gas from the system have to make seasonal, daily and hourly plans.²³⁴ In the law, it is foreseen to take storage measures, and additional periods are defined for this.²³⁵ While the additional period is two years for companies that will sell to distribution, it is uncertain for those that will sell to free consumers.²³⁶ This article is an erroneous regulation, and it is unclear what will happen if enough warehouses are built, and the way to cancel the license causes negativities that must be applied.²³⁷

It refers to the legal person who markets the gas purchased from the exporting company, production company, wholesale company or importing company abroad; legal persons who want to import natural gas abroad must obtain a license from the EMRA.²³⁸ Exporting companies must show that they must have technical and economic competence to obtain a license and with which vehicles they will export natural gas to which country.²³⁹ However, the technical and economic qualifications that the exporting companies should have should be stated concretely and objectively with the regulations; otherwise, the licenses may be rejected.²⁴⁰ In addition, it is obligatory for exporting companies to guarantee that they

²²² Aslan, 161.

²²³ Aslan, 163.

²²⁴ Ibid.

²²⁵ Ibrahim Yuksel, "Energy Production and Sustainable Energy Policy in Turkey" (2010) 35 RE 1475.

²²⁶ Aslan, 163.

²²⁷ Aslan, 232.

²²⁸ Ibid.

²²⁹ Ibid.

²³⁰ Ibid.

²³¹ Ibid.

²³² Aslan 234.

²³³ Ibid.

²³⁴ Ibid.

²³⁵ Aslan, 235.

²³⁶ Ibid.

²³⁷ Ibid.

²³⁸ Aslan, 239.

²³⁹ Aslan, 240.

²⁴⁰ Ibid.

will pay the damage in case of damage to the system and to insure.²⁴¹ It was evident that loading under these conditions makes exporting difficult.²⁴²

Distribution refers to the transportation and retail sale of gas through the local gas pipeline for delivery to customers, and is a market with a natural monopoly.²⁴³ Private companies and municipalities carry out distribution activities in the city.²⁴⁴ The separation of the activities of transmission, distribution and retail sales companies and the legal regulations to be made so that the suppliers can operate without any difference according to the region and that the consumers can buy natural gas from the supplier they want without any conditions will increase the competitiveness of the market.²⁴⁵

Article 11 of the Natural Gas Market Law mentions tariffs and regulates the price conditions for natural gas sales and related services.²⁴⁶ While creating tariffs in the natural gas market, it would be more accurate for the sector to develop tariffs in natural monopolies with government intervention and the market creating tariffs for other areas.²⁴⁷ The same article of the Law states that no distinction should be made between free consumers.²⁴⁸ When the Tariffs Regulation is examined, the principle of not discriminating between equals is valid for all tariffs.²⁴⁹ Here, it can be said that there is a mismatch between the Law and the regulation; also, who will be considered "equal parties" in the market is omitted.²⁵⁰ For example, it is not specified whether those who buy the same amount of gas are equal.²⁵¹ It can be accepted that the prohibition of discrimination between equals is violated if the two buyers are considered competitors at the same level in cases where there is competition between them and a distinction is made between them.²⁵² With such an application, the sustainability of competitive areas with a fast and robust economy can be ensured.²⁵³

iii. Administrative Sanction

As a general regulatory and supervisory independent administrative authority in the energy market, EMRA has essential duties such as licensing, imposing sanctions and arranging tariffs.²⁵⁴ It is understood that EMRA aims to create a fair, competitive market and to provide consumers with affordable and quality energy.²⁵⁵ EMRA is an influential institution responsible for creating a sustainable and efficient market.²⁵⁶ Although laws generally regulate administrative sanctions in energy markets, the implementation of these sanctions is supervised through regulations.²⁵⁷ EMRA has the authority to issue regulations to regulate the market, and while making these regulations, it is required to act following the purpose of the Laws.²⁵⁸

As a rule, there are three different administrative sanctions in the Petroleum Market Law: administrative fine, license cancellation and suspension of activities.²⁵⁹ The first of the administrative sanctions that EMRA can impose is an administrative fine.²⁶⁰ In an example of a lawsuit brought to the Constitutional Court, an administrative fine was imposed on the claim that the fuel station operated by the plaintiff did not have the logo of the distributor company to which he was affiliated, and therefore he committed a misdemeanour.²⁶¹ While determining the penalty, the administration has applied the penalty written in the law as it is, without taking into account the size, profit, and weight of the fault of the company that

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Aslan, 241.

²⁴⁴ Ibid.

²⁴⁵ Bas and others, 61.

²⁴⁶ Aslan, 295.

²⁴⁷ Ibid.

²⁴⁸ Aslan, 296.

²⁴⁹ Ibid.

²⁵⁰ Ibid.

²⁵¹ Ibid.

²⁵² Aslan, 297.

²⁵³ Ibid.

²⁵⁴ Dr. Zeynep Cakmak, *Energy Regulatory Market Body as Independent Administrative Authority* (1st edn, 2011) 171.

²⁵⁵ Bilal Ayaz, "Misdemeanours and Its Sanctions in the Turkish Oil Market Order" (Master, Akdeniz University 2019) 8.

²⁵⁶ Ayaz, 9.

²⁵⁷ Ayaz, 55.

²⁵⁸ Aslan, 273.

²⁵⁹ Ayaz, 99.

²⁶⁰ Ayaz, 8.

²⁶¹ Ayaz, 91. Also look, 2016/28 [2016] Constitutional Court.

committed the violation.²⁶² However, such an approach would be contrary to the principles of equality between people, justice and moderation in punishments.²⁶³

Administrative sanctions have been made possible by EMRA for some activities other than the actions listed and described in Article 19 of the Petroleum Market Law.²⁶⁴ It is foreseen that administrative sanctions will be applied in case of violation of the legislative provisions enacted by EMRA within its authority and in case of violation of the decisions taken by the institution.²⁶⁵ However, such an interpretation would be contrary to the principle of legality of crimes and punishments and would give EMRA a broad sentencing power.²⁶⁶ The decision made in the Council of State accepted that the decisions made by EMRA were within the scope of "other relevant legislation" in the law and became a partner in this legal mistake.²⁶⁷

In Article 9 of the Law, violations requiring license cancellation are regulated.²⁶⁸ When it becomes mandatory to cancel the license for the distribution regions, the Authority cancels the license by taking the necessary measures to prevent the service from being interrupted.²⁶⁹ In addition to the license cancellation, the facility belonging to the person whose license has been revoked has been proposed to be sold by EMRA.²⁷⁰ The transfer of property to the public, which is another sanction, is a sanction imposed directly by the administration against the people who intend this structure.²⁷¹ However, this provision constitutes a violation of the right to property in the Constitution, and if the property right is in the hands of a legal person, a practice such as selling it by the state on his behalf and his account is unacceptable.²⁷² In order to prevent the natural gas energy from being disrupted, it may be a more appropriate sanction to give the relevant person a certain period for the sale of the facility, not to carry out the sales process within this period and to nationalize the facility.²⁷³

As a result, in the texts of the law regulating the administrative sanctions in the energy market, there are many contradictions to the principle of fault, the principle of legality of crimes and punishments.²⁷⁴ Administrative sanctions are arranged in a complex and intertwined manner, complicating the implementation of sanctions.²⁷⁵ For this reason, it is a necessity to reorganize the legislation.²⁷⁶ Renewing the relevant regulations of the legislation in a systematic, understandable, and more prudent manner will protect the competitive market and ensure its sustainability.²⁷⁷

5) IMPROVEMENT AND TURKEY ENERGY FUTURE

Countries with natural gas reserves often use their wealth for political purposes, while countries between the regions where there is supply and demand become players with high strategic importance in the market.²⁷⁸ Turkey's oil and gas reserves are minimal and therefore heavily dependent on imports to meet its energy needs.²⁷⁹ Although Turkey is an essential country in this respect, it is clear that its position in the market will become even more critical with the newly made reservoir discoveries.²⁸⁰

The importance of oil and natural gas exploration and production activities can be understood with the new natural gas reserve discovered, as this discovery will strengthen Turkey's position in the

²⁶² Ayaz, 91.

²⁶³ Ibid.

²⁶⁴ Ayaz, 122.

²⁶⁵ Ibid.

²⁶⁶ Ayaz, 123.

²⁶⁷ Ibid. Also look, 2014/2380 [2014] Council of State.

²⁶⁸ Aslan, 280

²⁶⁹ Ibid.

²⁷⁰ Ibid.

²⁷¹ Ayaz, 92.

²⁷² Aslan, 280.

²⁷³ Ibid.

²⁷⁴ Ayaz, 141.

²⁷⁵ Ibid.

²⁷⁶ Ibid.

²⁷⁷ Ayaz, 6.

²⁷⁸ Bas, 44.

²⁷⁹ Balat, 2002.

²⁸⁰ Bas, 44.

international energy market and reduce its dependence on foreign energy.²⁸¹ Therefore, energy policy planning, a continuation of the liberalization and privatization process of the energy sector, and improvement of coordination among government institutions in all energy-related fields are required to improve Turkey's sustainability in the energy sector.²⁸² For example, in order to reduce these problems and ensure stability, it can be ensured that TPAO works within a vertically integrated structure and works as one of the leading actors in the sector.²⁸³ In order to protect the sustainability of the sector, Turkey should adopt strategies that prioritize the concept of public interest and national interest instead of moving away from it.²⁸⁴ Legislation on oil exploration and production has different regulations from tax laws and causes controversy; for this reason, the taxation part of the Turkish Petroleum Law should be detailed, the deficiencies should be eliminated, and thus the delays in practice should be eliminated.²⁸⁵

Considering Turkey's geographical location, it has the opportunity to import oil and gas from various countries to the country and to become an energy centre between countries with abundant energy resources and European markets.²⁸⁶ Therefore, creating more natural gas and oil lines through Turkey will be important in terms of energy and sustainability.²⁸⁷ Transmission companies are responsible for the operation of their transmission lines but there is a need for a competent institution to inspect issues such as security and efficiency.²⁸⁸ It should reduce excessive dependence on petroleum and natural gas through legal measures.²⁸⁹ It should be prepared against oil and natural gas cuts, and sufficient storage capacity should be created.²⁹⁰ It should reduce excessive dependence on oil and natural gas through legal measures.²⁹¹ In order to establish liberal dynamics in the market, competition conditions and third parties access to storage facilities should continue equally and impartially.²⁹² In addition, attention should be paid to the harmful effects of obligations such as the take or pay clause on the contracts' transportation and storage of oil and natural gas.²⁹³ Such obligations bind buyers and sellers, and detention, which makes new contracts, may create restrictive effects on competition.²⁹⁴ In order to establish competition, the dominance of BOTAS in the sector should be reduced.²⁹⁵

For Turkey to strengthen its international position and ensure the sustainability of its energy sector, it must have a liberalized domestic market.²⁹⁶ Attention should be paid not only to upstream and midstream activities, but also to downstream activities.²⁹⁷ To maintain sustainability, the government needs to work for market liberalization, including trade rules, transparency on competition and diversification.²⁹⁸ It is necessary for suppliers and consumers to trade in an open, transparent and well-regulated market and to create the necessary physical infrastructure for this market.²⁹⁹ One of the problems is that the Turkish consumer has to buy natural gas at subsidized prices, and there is no cost-effective pricing system.³⁰⁰ In order to ensure sustainability in the oil and gas sector for the consumer, energy should be allocated with quality continuously and at the correct price.³⁰¹ The national market system should be improved, and technical and legal changes should be made accordingly.³⁰²

²⁸¹ Bas, 54.

²⁸² Kaygusuz and Sari, 218.

²⁸³ Basa, 90.

²⁸⁴ Kenan Seyidov, "What Possible Effects of Baku-Tbilisi-Ceyhan Oil Pipeline on the Economics of Azerbaijan and Turkey" (PhD, Istanbul University 2006) 145.

²⁸⁵ Gazihan Karabiyik, 'Tax Regulations for Companies Operating in The Oil Exploration and Production Sector' (*Vergi Gundem*, 2016)

<https://www.vergidegundem.com/tr_TR/publicationPaper?categoryName=Vergide&publicationNumber=6&publicationYear=2016&publicationId=3994324> accessed 1 June 2016.

²⁸⁶ Bozkus, 1362.

²⁸⁷ Ibid.

²⁸⁸ Aslan, 222.

²⁸⁹ Basa, 133.

²⁹⁰ Basa, 91.

²⁹¹ Ibid.

²⁹² Gokhan Sorus, "Turkey-Europe Relations with the Aim of Liberalization in the Turkish Natural Gas Market" (Master, Baskent University 2019) 75.

²⁹³ Emir Yakin, 'Take or Pay and Take and Pay Records in Contract Law Specific to Energy Sale Contracts' (2020) 3 ABD 292.

²⁹⁴ Yakin, 292.

²⁹⁵ Fatih Yuksel, "Regulation and Competition in the Turkish Natural Gas Market" (Master, Yildiz Teknik University 2013) 107.

²⁹⁶ Bas, 54.

²⁹⁷ Ibid.

²⁹⁸ Bozkus, 1361.

²⁹⁹ Bozkus, 1362.

³⁰⁰ Bozkus, 1360.

³⁰¹ Basa, 109.

³⁰² Gedik, 306.

If development is desired to continue in an area, everything must be moderate.³⁰³ For the oil and gas market to continue efficiently and stably, the sanctions must be fair and deterrent, unambiguous, proportionate and prudent so as not to cause injustice.³⁰⁴

To sum up, lack of legislation, lack of market, and lack of economic incentives negatively affect the sustainability of the supply chain in Turkey.³⁰⁵ Compliance with the law should become the essential condition for all investments.³⁰⁶ The rule of law should be accepted in all areas of the energy sector.³⁰⁷ In order to ensure sustainability in the energy sector, the problems that may be experienced in the future should be considered, as well as the problems experienced today, and in this direction, the plan should be considered.³⁰⁸

6) CONCLUSION

Oil and natural gas are energy sources that play the most crucial role in the growth and development of the world economy. Therefore, an uninterrupted energy source is needed for a sustainable order. For this reason, although the activities in the oil and gas sector supply chain are essentially an area where economic activities are carried out, understanding its legal framework is very important for the sustainability of the sector. For this reason, the legal scope, supply chain and sustainability of oil and gas sector activities are explained in this study. The concept of supply chain and sustainability is explained in the first part of the thesis, and the activities in the supply chain process are briefly mentioned. In the second part of the thesis, the general problems of the supply chain of the oil and gas sector in the world are mentioned and how the supply chain can be made more sustainable and greener. The third part of the thesis, the structuring of the Turkish oil and gas sector, the policies implemented within this sector and the problems experienced in the legal framework are mentioned. Then, exploration and production activities in the oil and natural gas sector, transportation and storage of oil and natural gas by pipelines, and the legal framework of the oil and natural gas market are examined. When this process is examined, it is revealed that the laws written to regulate the oil and gas sector in Turkish Law should be reviewed. Because, as explained in detail, short amendments were made to the laws and caused many problems in practice, the legal framework of some articles could not be established, the purpose of some articles was written in a language that was not clearly understood, and most importantly, the primary purpose of the laws was to create a competitive market. This market needs to be renewed in order to ensure the sustainability of the market and to apply the laws without conflict in practice. The fourth and last part of the study mentions how emerging problems can be improved. In this direction, Turkey should intensify its oil and natural gas exploration and production activities. Creating new oil and natural gas pipelines using its geopolitical importance will reduce energy dependence and contribute to sustainability. Finally, in order for all these activities to achieve their purpose, a market with competition must be created. It is not possible to say that Turkey has a sustainable supply chain. It is essential to improve the legal regulations in order to meet the energy need and ensure sustainability.

³⁰³ Ayaz, 140.

³⁰⁴ Ibid.

³⁰⁵ Ismail Erol, "an Investigation into Sustainable Supply Chain Management Practices in a Developing Country" (2019) 11 IJBGS 112.

³⁰⁶ Basa, 110.

³⁰⁷ Basa, 95.

³⁰⁸ Basa, 108.

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