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A Holistic Approach

Volkan Ş. Ediger
Rahma Elfeky

Dimitrios Karampalis
Hazal Mengi

S. Erkan Tan
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Center for Energy and Sustainable Development (CESD)
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2023

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İstanbul, Turkey



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ISBN: 978-605-9792-17-2

Photo on the cover page by Adobe Stock
Layout by Batıkan Erkoç

Suggested Citation (APA Style)

Ediger, V.S., Elfeky, R., Karampalis, D., Mengi, H., Tan, S.E., Bowlus, J.V. (2023). Natural gas exploitation in the Eastern Mediterranean: A holistic approach. KHAS Center for Energy and Sustainable Development, Istanbul, Turkey

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Executive Summary

Discoveries of significant natural gas reserves in the Eastern Mediterranean since 2010 have elevated the region's geopolitical importance from being strictly based on security to one also based on energy and has thus drawn in outside powers that are eager to address their energy-supply security needs. The energy crises triggered first by the supply chain disruptions in 2021 and then the Russia-Ukraine War in 2022 have elevated the region's importance as a potential energy supplier and transit hub for Europe.

This report takes a holistic approach to critically assess the activities carried out in the Eastern Mediterranean region in the fields of exploration, discovery, development, production, and export of natural gas, and the delimitation of exclusive economic zones (EEZs), as well as the effects that these activities have on the economies, policies, and strategies of Eastern Mediterranean countries at the interstate, regional and global levels. Previous studies have generally evaluated the activities related to natural gas in the Eastern Mediterranean from narrow perspectives and only a very small number have dealt with all these elements considered together and with analysis of cause-and-effect relationships on a regional or global scale.

The authors deploy a systemic approach that is similar to the petroleum system concept, which evaluates hydrocarbon generation, migration, accumulation, and entrapment in an entire petroleum system on the basis of its essential elements (sources, reservoirs, seals, and overburden rocks) and processes (trap formations and generation-migration-accumulation) as well as the preservation time and, most importantly, the critical moments when events are significant enough to affect the whole system.

Likewise, this report uses qualitative and quantitative media analysis of six newspapers – two from Egypt, two from Greece, and two from Turkey from the first discovery of gas by Israel in 1999 to 2023 – to determine the critical moments that have brought what the authors term the Eastern Mediterranean gas exploitation system (EMGES) to a crossroads, where either conflict and confrontation or stability and cooperation will prevail. No one can predict when this system will be overwhelmed by the essential elements (the ten Eastern Mediterranean states), the essential processes (activities related to gas exploitation and delimitation of EEZs), and the critical moments (major conflict periods). This is rendered even more uncertain by a rapidly shifting geopolitical context that is being shaped by the energy transition from fossil fuels to clean energy sources as well as the transition from a unipolar to a multipolar world. Given how interconnected all these factors are, only a holistic approach can help illustrate how the EMGES has reached this crossroads.

For stability and cooperation to prevail in EMGES, two conditions must be met. First, countries must recognize that they are directly interconnected and depend on one another and a common vision that balances the economic and strategic interests of each country to forge development and sustainability. Second, a robust cooperative structural framework must be developed that does not exclude any individual country and involves external powers, most notably the EU and the United States.

Keywords: Eastern Mediterranean, gas exploitation, system assessment, systemic approach

1. Introduction

The Eastern Mediterranean Sea is located east of the 21° longitude (Inbar, 2015) and is surrounded in a clockwise direction starting from the northwest by Greece, Turkey, Syria, Lebanon, Israel, the Occupied Palestinian Territories (OPT), Egypt, Libya, and includes the islands of Crete and the Dodecanese of Greece, and Cyprus of the Turkish Republic of Northern Cyprus (TRNC) and the Republic of Cyprus (RoC) in its waters (Ediger et.al., 2012; Ashwarya, 2019; Kubin et.al., 2019; Tziampiris, 2019) (Fig. 1).



Fig. 1. Eastern Mediterranean region

The Mediterranean Sea is a meeting place of the continents of Asia, Africa, and Europe and has maintained its global importance for centuries (Mavris, 1946; Roucek, 1953; Calleja, 1992; Bin, 2000; Ediger et.al., 2012; Clement, 2012). However, its geopolitical importance has shifted from being security-based to also energy-based over the last two and a half decades (Ediger et.al., 2012). The first offshore gas discovery made by Israel in 1999 is often called a “game changer” or “revolution” (e.g., Darbouche et.al. 2012; Shaffer, 2011; Nathanson and Levy 2012; Boncourt 2013; Schmid, 2013; Even and Eran, 2014; Erdoğan, 2021; Dimou, 2021; Krasna, 2022), and the region is now set to play an essential role in international politics for the next few decades (Tziampiris, 2019).

The region’s gas discoveries also marked an important chapter in the history of global deep-sea hydrocarbon exploration, which began with the discovery of the Congac oilfield in the Gulf of Mexico in 1975 (Han et.al., 2016). The first offshore natural gas project was in North Field off the shore of Qatar in the Persian Gulf in the early 2000s, settling off a search for other viable gas fields (Yergin, 2011). The discovery of Israel’s deep-water Tamar field was the world’s largest in 2009 (Leigh and Brandsma, 2012) while the discovery of the Leviathan field in 2010 was one of the world’s largest discoveries of the 2000s (Beckwit, 2011). These discoveries occurred during a period when the global exploration potential was shrinking and hydrocarbon assets were becoming more difficult to realize in onshore and in shallow water areas, setting off increased competition between the international hydrocarbon majors for these valuable assets in the Eastern Mediterranean (Han et al., 2016).

Eastern Mediterranean gas has been frequently covered in scientific publications and the media. According to data from Scopus, approximately 200 articles have been published about this issue between 1971 and 2022 covering more than 300 topics, with just over half pertaining to studies of earth and planetary sciences and social sciences. This reveals that the natural gas upstream, midstream, and

downstream activities as well as EEZ delimitation and their effects on politics and economics have been equally important.

Geological and geophysical studies on petroleum exploration in the offshore Mediterranean started in the early 1970s (e.g., Johnson et.al., 1971; Wang and Quinterno, 1974). The Nile Delta was the most elaborate region studied in the Mediterranean offshore (see Aal et.al., 2000 for the details), while studies on the geological evolution and hydrocarbon generation in the offshore Levant basin started in the late 1980s and early 1990s (e.g., Dixon and Robertson, 1984; Lipson-Benitah et.al., 1988; May, 1991; Feinstein et.al., 1993). After drilling operations began, studies focused on well information, tests, reserves, etc. (e.g., Bamber, 2000; Petroleum Economist, 2000; Beckman, 2009 a, b; Lewis, 2009; Ben-David, 2010; Khadduri, 2010). Multi-disciplinary regional studies began after the first six discoveries in the region, including Noa in 1999, Mari-B and Gaza Marine in 2000, Tamar and Dalit in 2009, and Leviathan in 2010 (Marlow et.al. 2011).

The discovery of the Leviathan field in 2010 shifted scientific studies from gas exploration to the economic and political effects of the gas discoveries, especially from the perspective of Israel (Shaffer, 2011; Beckwith, 2011). With the addition of the Aphrodite field in 2011 located in the marine zone of the RoC, studies began to look more broadly to evaluate the effects of Levantine basin gas on the region and world. From this point of view, 2012 was a key year. Kadduri (2012) examined the gas discoveries based on each country and claimed that they would bring new geostrategic dimensions to the prolonged conflicts of the region such as between Israel-Palestine and Cyprus-Turkey. While Giamouridis (2012) and Ioannides (2012) approached the issue from the point of view of RoC, Oğurlu (2012) and Ögütçü (2012) evaluated it from the Turkish perspective. Having explored the historical evolution of the Levant region from the trading system to its hydrocarbon geopolitics, Ediger et.al. (2012) showed that the Levant would only reach its full potential in times of peace and stability, which could only be achieved if the region was under the hegemony of a great power. Darbouche et.al. (2012) also studied how important the recent discoveries were for the region as a game-changer, while Nathanson and Levy (2012) and Leigh and Brandsma (2012) explored whether Eastern Mediterranean gas would be a source of cooperation or a casus belli for further tension, and Mankoff (2012) evaluated the issue from the perspective of U.S. foreign policy priorities.

After 2012, the number of articles increased steadily and today has reached roughly 25 every year. However, few have discussed natural gas exploitation and EEZ delimitation in the region and their economic and political impacts on the region's countries and the region holistically. A significant number of studies consists of reports written by institutions, organizations, and companies, including Kadduri (2010), Boncourt (2013), Bryza (2013), Gürel et.al. (2013), Gürel and Le Cornu (2013), Nopens (2013), Tagliapietra (2013), El-Katiri and El-Katiri (2014), Tanchum (2015), Ellinas et.al. (2016), Lerman (2016), Samaan (2016), Chivvis and Fishman (2017), ElBassoussy (2018), Yorucu and Mehmet (2018), Okumuş (2020), Stanič and Karbuz (2020), Kim and Shin (2021), Badarin and Schumacher (2022), Ellinas (2022), and Alibabalu and Sarkhanov (2023).

Five reports are worth mentioning. Geopolitical perspectives, markets, and regional cooperation were covered in sixteen chapters in Gürel et.al. (2014), global energy debates in eight chapters in Gürel et.al. (2016), trilateral partnerships, and regional security within the scope of the region's new geopolitics in eight chapters in Tziarras (2019a), the Eastern Mediterranean energy geopolitics in eight chapters in Talbot (2021), and the geopolitical realities in thirteen chapters in Tanchum (2021).

Four books with dedicated chapters are also noteworthy. Over nine chapters, Petasis (2016) discuss the major regional challenges and dilemmas within an energy geopolitics framework. Spyridon N. Litsas and Aristotle Tziampiris edited a series of three books. Litsas and Tziampiris (2015) has 16 chapters in which they present a picture of the Eastern Mediterranean that is gradually experiencing the consequences, challenges, perils, and opportunities of multipolarity at a regional level. Litsas and Tziampiris (2017) has 11 chapters in which they discuss the recovery of Greece after the government-debt crisis began in 2009 in the context of the Mediterranean region. Finally, Litsas and Tziampiris (2019) has 10 chapters that discuss the substantial multidimensional and existential threats that now engulf almost all aspects of the region's foreign policies, diplomacy, economies, and even public and

social life. Multipolarity, politics, and power in the Eastern Mediterranean are discussed in twelve chapters of Mehmet and Yorucu (2020). Most recently, the journal *Comparative Southeast European Studies* published a special issue (2022, v. 70, no. 3) on the conflicts and global powers in the Eastern Mediterranean with Heinz-Jürgen Axt as guest editor. Six articles are published about the conflicts as well as the influence of the United States, Russia, and China.

We believe that the most accurate interpretation of the literature was made by Badarin and Schumacher (2022, p. 415):

The rich literature on the Eastern Mediterranean's natural hydrocarbon resources provides instructive knowledge to help us understand their economic and political potentials and limitations. However, relatively little attention has been devoted to examining how the Eastern Mediterranean energy-related disputes affect and are affected by the viscidities of the regional and global geopolitical landscape.

Perhaps we can add that no study has yet assessed the available databases of multiple disciplines for events with a holistic approach. Studies in the literature have generally evaluated the activities related to natural gas in the Eastern Mediterranean from narrow perspectives and only a very small number have dealt with all the elements with cause-and-effect analysis on a regional or global scale.

The present study differs from previous research in scope and methodology by focusing on events, interactions, and dynamics of the Eastern Mediterranean gas exploitation system (EMGES). It also applies a systemic approach with the help of a table, similar to the events chart used in petroleum system analysis as well as a qualitative and quantitative media content analysis to determine the critical moments of the system. The two studies that use a holistic approach – Petasis and Kyprianou (2016) and Tziarras (2019c) – respectively focus on specific issues such as the High Energy Authority (HEA) and the systemic environment in Cyprus. Our study aims to contribute to the literature by addressing new research perspectives with a theoretical framework and methodology that are explained in the next section. Thus, the aim of this study is to consider the issue of natural gas exploitation in the Eastern Mediterranean region as a system and to evaluate the main elements, events, and critical moments of the system, as well as the relations and main dynamics between them with a holistic approach.

The remainder of this paper is structured as follows. Section 2 presents the theoretical framework and methodology. Section 3 discusses in detail the essential elements, defining events, and critical moments of EMGES. Section 4 critically assesses EMGES by using an events chart within the framework of the systemic approach. Discussions and conclusions are given in the last section.

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2. Theoretical framework and methodology

In this study, a holistic perspective is used to critically assess the activities carried out in the Eastern Mediterranean region in the fields of exploration, discovery, development, production, and export of natural gas, the delimitation of EEZs, and all others related to them, as well as the reflections of these activities on the economy and policy at an interstate, regional and global scale.

The general systems theory, whose origins go back to the Aristotelian dictum of the whole being greater than the sum of its parts, was first formulated by Ludwig Von Bertalanffy in various publications after World War II, first for organisms and later for organized entities (Von Bertalanffy, 1972). The systems approach was initially confused with “an orderly, logical or step-by-step approach, that is, systematic” (Burton, 1974, p. 22), and after decades of research, there remained considerable disagreement on Von Bertalanffy’s (1956) original definition of the system, which was “a set of objects together with relationships between the objects and between their attributes” (Marchal, 1975). Presently, systems science is a heterogeneous field used in a variety of disciplines as an alternative to reductionist analysis (e.g., Meadows, 2009; Montuori, 2011; Adams, 2012; Capra and Luisi, 2014; Capra, 2015; McIntyre, 2016; Mononen, 2017; Varghese, 2021).

In this study, we used the systemic approach (SA), which was used to assess systems in a holistic way by de Rosnay (1979) and Waltz (1979). It is also called “systems thinking” (Wiek et.al., 2011; Mella, 2012; Capra and Luisi, 2014; Mononen, 2017), “thinking in systems” (Meadows, 2009), “systems approach” (Burton, 1974, Montuori, 2011; Varghese, 2021), or “systems view” (Capra and Luisi, 2014). It is not a science, theory, or discipline but “a methodology that makes possible the collection and organization of accumulated knowledge in order to increase the efficiency of our actions” (de Rosnay, 1979, p. 58), contributing to multidisciplinary (Mononen, 2017), interdisciplinary (Garbolino et.al., 2019) or transdisciplinary research (Montuori, 2011). This approach is accepted as “the intellectual child” of general systems theory (Varghese, 2021, p. 66).

SA includes “the totality of the elements in the system under study, as well as their interaction and interdependence” (de Rosnay, 1979, p. 58). In a system, the elements are interconnected so that “changes in some elements or their relations produce changes in other parts of the system” (Jervis, 1997, p. 6,) and “outcomes are affected not only by the properties and interconnections of variables but also by the way in which they are organized” (Waltz, 1979, p. 58) since the organization of elements affects “their behavior and their interactions” (Waltz, 1979, p. 39).

Therefore, a system is called “an interconnected set of elements that is coherently organized in a way that achieves something” and must consist of elements, interconnections, and a function or purpose (Meadows, 2009, p. 11). The elements form an organized complex whole (Flood and Carson, 1993; Montuori, 2011), and the whole is greater than and different from the sum of its parts in terms of properties and behaviors (Jervis 1997; Meadows, 2009; Mella, 2012; Capra and Luisi, 2014; Donnelly, 2019). In other words, the inter-relationships and interaction of the elements of a system should create “something new” (Wils et.al., 2006, p. 13), and the systemic approach should explain “how the systems level, or structure, is distinct from the level of interacting units.” (Waltz, 1979, p. 40).

SA provides a holistic perception of the reality of facts (de Rosnay, 1979; Dacko and Dacko, 2009; Garbolino et.al., 2019). It reduces the complexity of systems (Wils et.al., 2006; Meadows, 2009; Wiek et.al., 2011) by “organizing it into a coherent story that illuminates the causes of problems and how they can be remedied in enduring ways” (Senge, 1990, p. 128). It focuses on dynamic processes in a system and its influence over other systems (Capra and Luisi, 2014; Varghese, 2021).

In this study, the systemic approach methodology used in the petroleum system concept was used to assess EMGES. The improved forms of the petroleum system concept, which was introduced by Magoon and Dow (1994), have become integral in contemporary hydrocarbon exploration, laying the theoretical foundation of modern oil and gas geology (e.g., Jia et.al., 2022; Aladwani et.al., 2023). In this concept, the term system is used to describe “the interdependent elements and processes that form the functional unit that creates hydrocarbon accumulations” (Magoon and Beaumont, 1999, p. 3). It evaluates hydrocarbon generation, migration, accumulation, and entrapping styles in an entire

petroleum system in terms of essential elements (source, reservoir, seal, and overburden rocks) and processes (trap formation and generation-migration-accumulation) as well as the preservation time and the critical moment (Magoon and Schmoker, 2000). An events chart is often used to show the relationship between the essential elements and processes, preservation time, and critical moments for the petrol systems (Magoon and Dow, 1994, Evenick, 2022). Since SA focuses on “the actors, processes, and structure of the system” (Özdemir, 2015, p. 11) and “the story of natural gas in the Levant Basin has been a brief but eventful one, with important ramifications for political and economic developments in the region” (Darbouche et.al., 2012, p. 3), the events chart is also used for the assessment of EMGES.

One of the most important components of petroleum systems is the critical moment, “the time that best depicts the generation–migration–accumulation of hydrocarbons in a petroleum system” (Magoon and Beaumont, 1999, p. 9). In this study, the critical moment is used as a synonym for a decisive moment or turning point when events are significant enough to affect the whole system. To determine the critical moments, we conducted a content analysis (CA), a set of qualitative and quantitative methods for collecting and systematically analyzing data in any type of communication from verbal, print, or electronic communication (Kondracki et.al., 2002). Traditional CA using trained coders dates to the 1950s and computer approaches, which permitted more systematic and reliable coding, have been available since the 1960s (McTavish and Pirro, 1990; Gavora, 2015). The CA methodology, which was previously used by communications scholars, later began to be used by scholars in other fields to understand a particular phenomenon across different contexts (e.g., Manganello and Blake 2010; Saraisky, 2015; Hamad et.al., 2016; Huey and Apollonio, 2018).

CA focuses on “says what” of a series of questions such as “who says what, in which channel, to whom, with what effect?”, which Laswell (1948, p. 117) used to describe communication. Although they have much in common, CA and discourse analysis provide alternative perspectives on the role of language; CA is quantitatively focusing on objectivity, reliability, and validity, while discourse analysis is interpretive, intersubjective, and qualitative (Hardy et.al., 2004; Saraisky, 2015). It was originally a quantitative research method but could not stand the later developments and improved to include mixed-methods research approaches by adopting qualitative methods (Gavora, 2015; Saraisky, 2015; Hamad et.al., 2016).

In this study, we used media content analysis, as media plays a key role in interpreting and disseminating ideas about public policy through framing and gatekeeping (White 1950; Wilson 1995; Stamm et al. 2000; Reese and Ballinger 2001; Boykoff and Rajan 2007; Jacobson et.al., 2011; Saraisky, 2015). We used newspapers for the textual document analysis since they are excellent sources for public discourse, providing a useful tool to assess reception in a single country context and insight into national cultural and political landscapes (Saraisky, 2015). Newspapers also offer a large amount of digital text and are available online in addition to hard copies (Hamad et.al., 2016).

For the CA in this study, we used traditional print media in both their print and electronic forms and online media published between 1999 and 2024. For this, six newspapers were used, two of which are published in Turkey, Egypt, and Greece (**Table 1**). The newspapers selected for CA are among the oldest in their country and have high circulation and readership rates. They are also generally impartial and reflect the views of a broad section of the population.

Table 1. Characteristics of the newspapers used for CA.

	Name of Newspaper		Foundation Date	Country	Type of Newspaper	Time Period		Link
	Original	Latin Alphabet				From	To	
1	Hürriyet	Hurriyet	1948	Turkey	Online	1-Jan-99	31-Dec-22	https://www.hurriyet.com.tr/arama/
2	Cumhuriyet	Cumhuriyet	1924	Turkey	Hard Copy	1-Jan-99	15.Mar.22	https://egazete.cumhuriyet.com.tr/yavinlar
3	Η Καθημερινή	Kathimerini	1919	Greece	Hard Copy	1-Jan-99	22-Dec-22	https://www.kathimerini.gr/
4	Η Ναυτεμπορική	Naftemporiki	1924	Greece	Hard Copy	1-Jan-99	30-Dec-22	https://www.naftemporiki.gr/
5	اليوم السابع	Youm7	2008	Egypt	Online	1-Jan-99	7-Dec-22	http://youm7.com اليوم السابع (youm7.com)
6	المصري اليوم	Al-Masry Al-Youm	2004	Egypt	Online	1-Jan-99	31-Dec-22	http://almasryalyoum.com المصري اليوم (almasryalyoum.com)

The four co-authors served as article coders: one native-speaking Greek, one native-speaking Arabic, and two native-speaking Turkish authors. The coders first searched for articles (news, report, opinion, comment, analysis, statements by public figures, etc.) that contained the keywords “Eastern Mediterranean” and “gas” in their original languages (**Table 2**). Then they discarded those that were unrelated to the natural gas exploitation in the offshore area, which included topics such as atmospheric gas, deep sea volcanic gas, gas on land, etc. The coders consistently reviewed each article three times to minimize any possible bias and subjectivity and to promote transparency (Reason and Garcia, 2007; Mangenello and Blake, 2010). They used Microsoft Excel to store data such as dates, titles, short summaries, and links.

Table 2. Keywords used for CA.

	Newspaper Name in Latin Alphabet	Keywords		Number of News/Articles
		Original Alphabet	Latin Alphabet	
1	Hurriyet	"Doğu Akdeniz" AND "gaz"	"Doğu Akdeniz" AND "gaz"	573
2	Cumhuriyet			87
5	Kathimerini	"Ανατολική Μεσόγειος" AND "αέριο"	"Anatoliki Mesogeios" AND "aerio"	343
6	Naftemporiki			360
3	Youm7	"غاز شرق المتوسط"	"Ghaz Sharq Al-Mutawaset"	203
4	Al-Masry Al-Youm			572
Total				2138

The database was later used for the quantitative and qualitative analysis of the critical moments (Sjøvaag and Stavelin, 2012; Luo, 2022). It was first used to plot graphs showing how the number of articles changed over time to determine the peaks that correspond to critical moments and content to see what news was covered during peak times.

3. The elements, processes, and critical moments of EMGES

In this section, the essential elements, essential events (processes), and critical moments of EMGES are discussed in detail.

3.1. Essential elements

The Eastern Mediterranean is a distinct regional subsystem of the Mediterranean system (Tziampiris, 2019) and has all the characteristics of being a system (Petasis and Kyprianou, 2016), with the term Eastern Mediterranean region used to define all the countries that touch its shore (Celement, 2012). Thus, the interconnected and/or interacting elements (de Rosnay, 1979; Waltz, 1979; Jervis, 1997; Wils et.al., 2006; Garbolino et.al., 2019) of EMGES consist of ten countries such as Greece, Turkey, Syria, Lebanon, Israel, OPT, Egypt, Libya, the Turkish Republic of North Cyprus (TRNC), and the RoC (see the arguments of Gause, 1999 for the Middle East system).

Although these countries show a degree of cohesion greater than other Mediterranean countries (Tziampiris, 2019), they consist of different cultures, which are fragmented along political, religious, and ethnic lines (Inbar and Sandler, 2001; Rubin and Eiran, 2019). In a sense, they constitute a union of opposites (**Table 3**). The largest countries in terms of land are Libya, Egypt, and Turkey while the most populous countries are Egypt, Turkey, and Syria. Others are relatively small geographically and have small populations. Of the people in the region, 88.1% of around 254.546 million are Muslim, 7.9% are Christian, and 3.2% are Jewish. Greece and RoC are predominantly Christian and Israel is Jewish whereas the remaining seven countries have predominantly Muslim populations. Within these countries, Greece and RoC are EU members, Turkey, Israel, and Greece are OECD members, and Turkey is the only G20 member. In terms of the human development index (HDI), Israel, RoC, Greece, Turkey, and TRNC are outliers with very high development levels, whereas Egypt, Libya, OPT, Lebanon, and Syria are respectively in the high development and in medium development categories. On the other hand, primary energy consumption in Turkey and Egypt is quite high compared to the others. Of these countries, Greece, Turkey, Israel, Egypt, TRNC, and RoC are usually considered core countries because they carry out most natural gas activities (Inbar, 2015; Tziampiris, 2015bbb; Tziampiris, 2019).

Table 3. Basic characteristics of the elements of EMGES.

Countries	Population (Million)	GDP (Billion USD)	GDP per Capita (USD)	Area (km ²)	Dominant Religion	HDI	Energy Use (Million EJ)
Turkey	84.775 (2021) ¹	819.04 (2021) ⁴	9,661.2 (2021) ⁶	769,630 (2020) ⁷	Muslim 98.0% (2010) ⁸	0,838 (2020) ¹⁰	7.188 (2021) ¹²
Egypt	109.262 (2021) ¹	404.14 (2021) ⁴	3,698.8 (2021) ⁶	995,450 (2020) ⁷	Muslim 94.9% (2010) ⁸	0,731 (2020) ¹⁰	4.017 (2021) ¹²
Israel	9.364 (2021) ¹	488.53 (2021) ⁴	52,170.7 (2021) ⁶	21,640 (2020) ⁷	Jewish 75.6% (2010) ⁸	0,919 (2020) ¹⁰	1.087 (2021) ¹²
Libya	6.735 (2021) ¹	42.82 (2021) ⁴	6,357.2 (2021) ⁶	1,759,540 (2020) ⁷	Muslim 96.6% (2010) ⁸	0,718 (2020) ¹⁰	0.685 (2021) ¹²
Lebanon	5.592 (2021) ¹	23.13 (2021) ⁴	4,136.1 (2021) ⁶	10,230 (2020) ⁷	Muslim 61.3% (2010) ⁸	0,706 (2020) ¹⁰	0.379 (2021) ¹²
Palestine	5.227 (2021) ²	18.04 (2021) ⁴	3,664.0 (2021) ⁶	6,020 (2020) ⁷	Muslim 97.6% (2010) ⁸	0,715 (2020) ¹⁰	0.073 (2021) ¹²
Syria	21.324 (2021) ¹	11.08 (2021) ⁴	533.4 (2020) ⁶	183,630 (2020) ⁷	Muslim 92.8% (2010) ⁸	0,577 (2020) ¹⁰	0.422 (2021) ¹²
Greece	10.641 (2021) ¹	214.87 (2021) ⁴	20,192.6 (2021) ⁶	128,900 (2020) ⁷	Christian 88.1% (2010) ⁸	0,887 (2020) ¹⁰	1.118 (2021) ¹²
TRNC	0.382 (2021) ³	21.4 (2020) ⁵	10,055 (2020) ⁵	3,354 (2020) ⁵	Muslim 98.7% (2017) ⁹	0.820 (2010) ¹¹	0.018 (2018) ¹³
ROC	1.244 (2021) ¹	28.41 (2021) ⁴	31,551.8 (2021) ⁶	5,896 (2020) ⁷	Christian 94.8% (2010) ⁸	0,896 (2020) ¹⁰	0.123 (2021) ¹²

Notes:

¹World Bank (n.d.a); ²PCBS (2021); ³Arslan (2022); ⁴World Bank (n.d.b); ⁵TMLSS (n.d.); ⁶World Bank (n.d.c); ⁷World Bank (n.d.d); ⁸PRC (n.d.); ⁹Anadolu Agency (2017); ¹⁰UNDP (2022); ¹¹Mehmet (2010). HDI for TRNC is given as 0.56 (2019) in Taşiran and Ünver (2016); ¹²EIA (n.d.b); ¹³Calculated from the TRNC SPO (2020)

3.2. Essential events

We have focused on the activities carried out by the elements of EMGES (the countries) related to the exploitation of offshore gas fields between 1999-2023. The word exploitation¹ is used here to encompass all verbal, administrative, legislative, technical, diplomatic, military, economic, and judicial activities carried out on three natural gas-related domains such as upstream (exploration, development, production), midstream (transportation), and delimitation of exclusive economic zones (EEZ).

In EMGES, the interactions of elements – ten states in our case – not only affect each other but are also affected by the whole system and the resulting system is different from the elements. In this respect, it would be appropriate to assess EMGES with a systemic approach that considers the whole system together instead of an analytical approach. Interstate relations in the Eastern Mediterranean on natural gas exploitation comprise a system, and the events such as gas exploration, production, and transportation as well as EEZ delimitations have important effects on the entire region, not simply on the countries directly involved. These events assume an interconnection among the countries in the region that is more than simple geographic proximity. Events in one part of the country or subsystem have surprising and unintended consequences in others; in short, everything is connected in EMGES.

3.2.1 Upstream activities

Geologically the concept of the Eastern Mediterranean Basin (EMB) was introduced by Freund et.al. (1975, p. 17): “The Eastern Mediterranean basin is a small oceanic basin developing between a continent and an orogenic belt, on the west side of an ocean.” It is usually accepted that most of the EMB was a relic of the Mesozoic Tethys Sea and therefore underwent a geological evolution related to Alpine orogenesis (Garfunkel, 1998). As a result of this evolution, the EMB is now located on the continental margin of the Neotethyan tectonic domain as a deep-water belt, consisting of the Herodotus and Levant Basins and the Eratosthenes High (seamount) that separates them (Garfunkel, 2004; Segev et al., 2018; Gongcheng et.al., 2022) (**Fig. 2**). The southern Nile Delta Basin (NDB) is often treated separately from EMB.

A total of 20 natural gas fields were discovered in the region, with total reserves of 2,571.11 billion cubic meters (bcm) (**Table 4**). Of these reserves, 43.2% are found in 12 fields in Israel, 33% in one field in Egypt, 22.7% in five fields in Cyprus, and only 1.1% in two fields in the OPT. A marked difference exists in the size of the fields at the 200 bcm level. Only three of the gas fields are much larger than the others, namely Zohr (847.35 bcm), Leviathan (560.74 bcm), and Tamar (284.24 bcm). The region’s gas-exploration activities can be separated into four phases based on the discoveries listed below: Phase I (1999-2006), Phase II (2007-2010), Phase III (2011-2014), and Phase IV (2015-2022).

In Phase I, the first oil and gas exploration efforts that resulted in the discovery of natural gas were initiated by Israel in 1999 in its shallow marine waters in the Levant Basin. They were all small fields and production was made only in the Mari-B field from 2000 to 2013 (EIA, n.d.a).

In Phase II, Israel intensified its deep-sea drilling, and the RoC took its first steps into exploration. The extensive geological and geophysical deepwater exploration program started by Israel in 2006 resulted in three discoveries, of which the Tamar and Leviathan fields are among the three largest fields in the region (Gardosh et al., 2006; Marlow et.al., 2011; Zhang et al., 2019). Also, the RoC entered gas exploration by declaring 13 exploration blocks, followed by opening a bidding process to license offshore exploration in 2007.

Phase III is characterized by the RoC making its first important discovery and the fourth largest field in the region: Aphrodite. Israel also discovered four relatively small fields in this phase. The Tamar field also started to produce gas in 2013 (Reuters Staff, 2014) and now ranks second today after Leviathan.

¹ Exploitation is defined as “the use or utilization of something (mostly natural resources such as land, oil, minerals, etc.) in order to get an advantage from it (or for-profit)” in various prominent online dictionaries such as Cambridge, Merriam-Webster, Oxford Learners, and Collins.

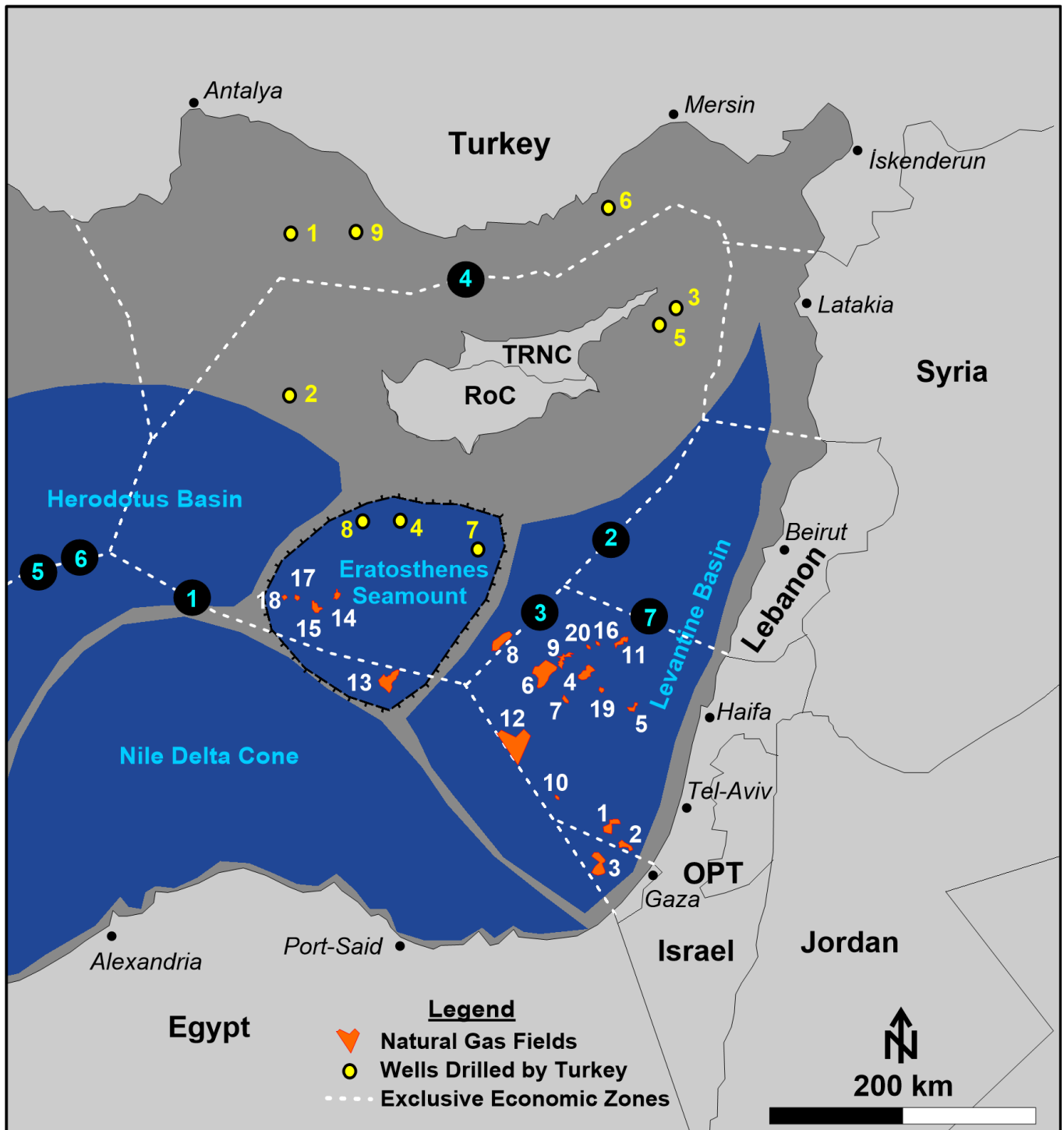


Fig. 2. The geological structures and exploration activities. See Table 4 for the names of the gas fields discovered, Table 5 for the wells drilled by Turkey, and Table 6 for the exclusive economic zones.

Table 4. Natural gas discoveries in the Eastern Mediterranean region

Exploration Phases	No	Field Name	Country	Discovery Date	Reserve, Bcm	References
Phase I (1999-2006)	1	Noa	Israel and Palestine	jun. 1999	1.19±0.14	Tagliapietra (2013), EIA (2013), Ashwarya (2019), Demiryol (2019), Yorulmaz (2019), Nakhle (2020)
	2	Mari-B (Mary-B)	Israel	Feb. 2000	34.36±7.97	Tagliapietra (2013), EIA (2013), Ashwarya (2019), Karbuz (2018), Prontera (2019), Demiryol (2019), Yorulmaz (2019), Nakhle (2020), Bowlus (2020), Strategic Comments (2020), Kozanhan (2022), Yaşa and Yilmaz (2022)
	3	Gaza Marine	Palestine	Sep. 2000	28.65±0.91	EIA (2013), Prontera (2019), Yorulmaz (2019), Nakhle (2020), Kavaz (2021)
Phase II (2007-2010)	4	Tamar	Israel	Jan. 2009	284.24±14.40	Tagliapietra (2013), EIA (2013), Nakhle (2015), Ellinas et.al. (2016), Prontera (2019), Shama (2019), Demiryol (2019), Yorulmaz (2019), Nakhle (2020), Salameh & Chedid (2020), Kim & Shin (2021), Tutar et.al. (2022), Kavaz (2021), Ellinas (2022)
	5	Dalit	Israel	Mar. 2009	14.01±3.74	EIA (2013), Tagliapietra (2013), Prontera (2019), Yorulmaz (2019), Nakle (2020), Vidotto (2022)
	6	Leviathan (Whale)	Israel	Dec. 2010	560.74±60.44	Tagliapietra (2013), EIA (2013), Nakhle (2015), Ellinas et.al. (2016), Prontera (2019), Shama (2019), Demiryol (2019), Yorulmaz (2019), Nakhle (2020), Salameh&Chedid (2020), Kavaz (2021), Ellinas (2022)
Phase III (2011-2014)	7	Dolphin	Israel	Nov. 2011	2.18±0.13	EIA (2013), Tagliapietra (2013), Yorulmaz (2019), Nakle (2020)
	8	Aphrodite	Cyprus	Dec. 2011	152.51±34.46	Tagliapietra (2013), EIA (2013), Nakhle (2015), Ellinas et.al. (2016), Prontera (2019), Shama (2019), Demiryol (2019), İstikbal and Boyraz (2019), Yorulmaz (2019), Nakhle (2020), Kim & Shin (2021), Kavaz (2021), Kim (2021), Ellinas (2022), Stevenson (2023)
	9	Tanin	Israel	Feb. 2012	33.63±3.18	Tagliapietra (2013), EIA (2013), Prontera (2019), Demiryol (2019), Yorulmaz (2019), Bowlus 2020, Kavaz (2021), Ellinas (2022)
	10	Shimshon	Israel	Aug. 2012	8.49±0.05	EIA (2013), Nakhle (2015), Yorulmaz (2019)
	11	Karish	Israel	Jul. 2013	48.47±4.42	Tagliapietra (2013), EIA (2013), Prontera (2019), Demiryol (2019), Yorulmaz (2019), Salameh and Chedid (2020), Nakhle (2020), Kavaz (2021)
	12	Royee	Israel	Dec. 2014	93.31±3.81	Nakhle (2020), Kavaz (2021)
Phase IV (2015-2022)	13	Zohr	Egypt	Aug. 2015	847.35±4.78	Ellinas et.al. (2016), ElBassoussy (2018), Demiryol (2019), Yorulmaz (2019), Salameh and Chedid (2020), Kim & Shin (2021), Kavaz (2021), Ellinas (2022), Alibabalu and Sarkhanov (2023)
	14	Calypso	Cyprus	Feb. 2018	123.90±48.07	Bowlus (2020), Nakhle (2020), Kavaz (2021), Kim and Shin (2021), Stevenson (2023)
	15	Glaucus (Glaucos)	Cyprus	Feb. 2019	127.53±20.13	Kim and Shin (2021), Kavaz (2021), Stevenson (2023)
	16	Athena	Israel	May. 2022	7.67±0.58	Offshore Technology (2022), Connelly (2023), Stevenson (2023)
	17	Cronos	Cyprus	Jun. 2022	70.79±0.00	Daily Sabah (2022), Stevenson (2023)
	18	Zeus	Cyprus	Aug. 2022	108.45±65.47	Daily Sabah (2022), Connelly (2023), Stevenson (2023)
	19	Hermes	Israel	Oct. 2022	11.00±0.00	Middle East Monitor (2022), Connelly (2023)
	20	Zeus	Israel	Oct. 2022	13.00±0.00	Connelly (2023)

Note: The classification of reserves is highly varied in the literature. See Temizel et.al. (2022) for reserve classes.

Finally, Phase IV began with the discovery of the largest gas field in the region, the giant Zohr field located on the structural divide between the Herodotus to the west, Nile Delta to the south, and Levantine Basin to the east along the RoC-Egypt border (Cozzi et.al., 2021). Israel also discovered three small fields and the RoC four fields, three of which have reserves of more than 100 bcm: Glaucus, Calypso, and Zeus-01. Turkey also entered exploration by drilling five dry wells at Alanya-1, Finike-1, Karpaz-1, Güzelyurt-1, and Magosa-1 between 2018 and 2019 (Table 5).

Table 5. The wells drilled by Turkey in the region.

No	Well Name	Spudding Date	Drillship
1	Alanya-1	Oct.18	Fatih
2	Finike-1	May.19	Fatih
3	Karpaz-1	Aug.19	Yavuz
4	Güzelyurt-1	Oct.19	Yavuz
5	Magosa-1	Nov.19	Fatih
6	Narlıkuyu-1	Mar.20	Fatih
7	Lefkoşa-1	Apr.20	Yavuz
8	Selçuklu-1	Oct.20	Yavuz
9	Yörükler-1	Dec.22	Abdulhamid

Production activities also intensified during this phase. Leviathan began producing in 2019 and Karish in 2022 (Al Jazeera, 2022; Zielińska, 2022; Coleman and Elliot, 2023; Reuters, 2023). In the first half of 2022, the production of natural gas from the Leviathan and Tamar reservoirs amounted to 10.85 bcm, compared to the production of 8.9 bcm in the first half of 2021, with 5.62 bcm from Leviathan and 5.23 bcm from Tamar (Peskin, 2022). In 2021, Israel consumed 11.7 bcm of natural gas and exported 6 bcm to Egypt and Jordan (EIA, n.d.a; Reuters, 2023).

3.2.2. Midstream activities

Discussions about constructing a pipeline to carry natural gas produced from the region to Europe started with the beginning of production at Tamar in 2013 (Reuters Staff, 2014) and was designated as one of the “priority gas corridors” in the European Commission Regulation No. 347/2013 (EU, 2013). The initiatives related to the pipeline accelerated after the discovery of Zohr in 2015. The \$6 billion EastMed pipeline project was first proposed by Israel at the 1st trilateral summit attended by the presidents of Cyprus, Israel, and Greece in 2016 (Harkov, 2022). It was the main topic of the 4th tripartite summit held in 2018 (Associated Press, 2018). Labeling the EastMed pipeline as an alternative source of natural gas for energy-hungry Europe, the EU supported it by setting aside €34.5 million to fund a technical study in 2019 (Associated Press, 2018; Euronews, 2020).

At the 5th tripartite summit in 2018, the leaders reached an agreement on the text of the intergovernmental agreement (IGA) (Greek Embassy in Israel, 2018). The United States also conveyed its support through its Ambassador to Israel and U.S. Secretary of State Mike Pompeo who also attended the 6th summit (Hürriyet Daily News, 2019). The IGA was signed by Israel, Greece, and RoC at their 7th summit held in 2020 (Euronews, 2020). At the 8th summit held in 2021, a permanent secretary was appointed specifically for the realization of the pipeline (PIO, 2021). However, the United States decided to withdraw support from the project in January 2022 by stating that it has shifted its focus to electricity interconnectors that can support both gas and renewable energy sources (Harkov, 2022; Jerusalem Post, 2022; Gençtürk, 2022). Thus, despite all the efforts of the countries in the region, especially Israel, and the opposition of many U.S. officials, the project lost the support of the U.S. government.

3.2.3. Exclusive economic zone agreements

Seven EEZ-delimitation agreements were signed in the region over the two decades since 2003 (Fig. 2). This period can be separated into three phases based on the country that played an important role in the signing of the agreement: Phase I (2003-2011), Phase II (2012-2019), and Phase III (2020-2022) (Table 6).

Table 6. EEZ delimitation agreements signed between 2003 and 2022 in the region.

Phases	No	Countries	Date	Location
Phase I (2003-2011)	1	Egypt and ROC	17-Feb-03	Cairo
	2	Lebanon and ROC	17-Jan-07	Beirut
	3	ROC and Israel	17-Dec-10	Nicosia
Phase II (2012-2019)	4	Turkey and TRNC	21-Sep-11	New York
	5	Turkey and Libya	27-Nov-19	Istanbul
Phase III (2020-2022)	6	Egypt and Greece	6-Aug-20	Cairo
	7	Lebanon and Israel	27-Oct-22	Naqoura

In Phase I, RoC took the lead in signing the first three EEZ agreements with Egypt, Lebanon, and Israel from 2003 to 2010; however, Lebanon never ratified its agreement with RoC (Financial Mirror, 2022). In Phase II, Turkey signed EEZ agreements with the TNRC and Libya from 2011 to 2019. In Phase III, EEZ agreements were signed between Egypt and Greece in 2020 and between Israel and Lebanon in 2022. Greece also signed an agreement on maritime boundaries, establishing an exclusive economic zone with Italy on June 9, 2020, around two months before its agreement with Egypt.

On the other side, the agreement has yet to be signed by five countries that border the Mediterranean, and disputes continue regarding Syria's borders with the TNRC, RoC, and Lebanon, as well as between Israel and Egypt, and Turkey and Egypt (Ongun, 2020; Cohen and Boms, 2021; Financial Mirror, 2022; Al-Ajeel, 2022; Connelly, 2023).

3.3. Critical moments

The critical moments, which mostly correspond with conflicts on upstream and midstream petroleum activities and EEZ delimitation agreements, are determined by using quantitative and qualitative content analysis (CA).

3.3.1. Quantitative CA analysis

The quantitative CA of 2,138 new articles show three spikes from 1999 to 2022: in 2007, 2011, and 2019-2020 (Fig. 3). The peaks occur in all six newspapers, and the maximum frequency in each peak at 20 in Hürriyet, 83 in Al-Masri Al-Youm, and 125 in Hürriyet, respectively.

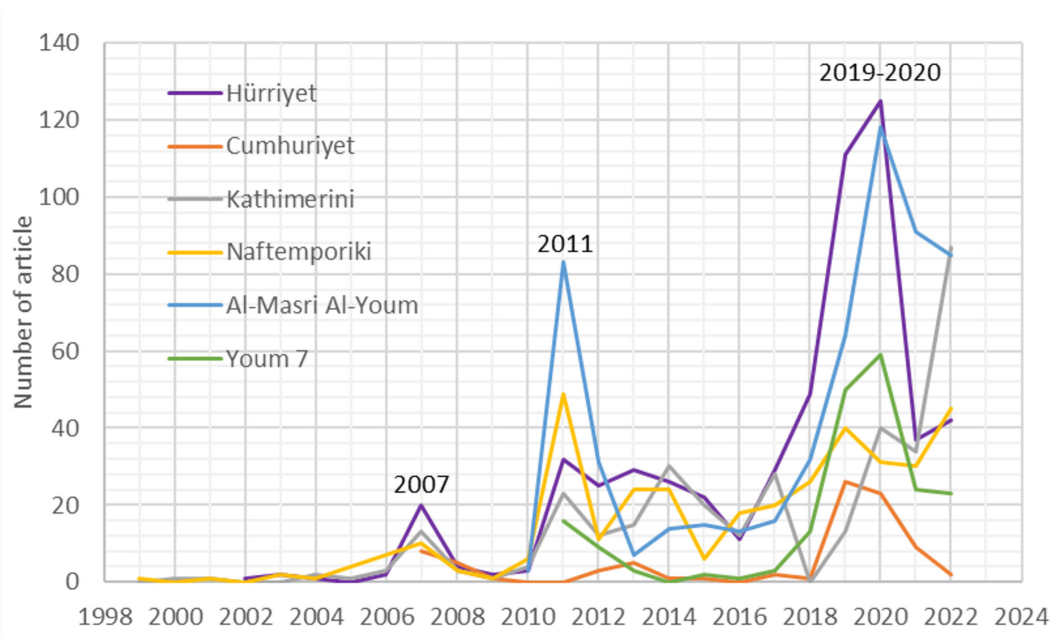


Fig. 3. Quantitative CA result showing the peaks.

3.3.2. Qualitative CA analysis

The qualitative CA of the critical moments reveals which new stories were mostly covered in these moments. As seen in **Table 7**, the peak times correspond to the major disputes that arose between the region's countries. In this study, they are evaluated as critical moments.

3.3.2.1. The 2007 peak

The 2007 peak was characterized by the conflict that arose when the RoC started an exploration program, which include the promulgation of the 2007 Hydrocarbon Law and then issuing its first licensing round for hydrocarbons exploration in eleven offshore blocks in waters that Turkey disputed, prompting Turkey and the TNRC to respond through statements and legal posturing. The Cypriot government Their appeals to international organizations such as NATO and the UN were limited to finding an advisory response. In 2007, the so-called Seville Map, first created in 2003 and then published in 2007 by an EU commission further inflamed tensions as it drew maximum maritime borders for the RoC and Greece and ignored Turkish claims.

Meanwhile, the RoC signed agreements with Lebanon to delimit an undersea border and with Egypt for the joint exploration of oil and gas in offshore Cyprus. It declared 13 exploration blocks and opened a bidding process to license them. Turkey considered these agreements unacceptable and warned governments and companies not to act until the Cyprus issue is resolved. It also sent a warship off the territorial waters of Cyprus to demonstrate its power. The RoC prepared a demarche to NATO to protect its positions and Turkey issued a stern note to RoC over the developments and sent a letter to the UN Secretary-General. While Turkish newspapers interpreted these attempts of RoC as a violation of the integrity of the island, Greek newspapers evaluated Turkey's reaction as illegal and a provocation, and a threat. also sent a counter-letter in response. The Washington Times wrote: "Warnings and threats supported by gunboat diplomacy have electrified the Eastern Mediterranean." In addition, Greek newspapers put the intergovernmental agreement signed between Greece, Russia, and Bulgaria on the Burgas-Alexandroupolis oil pipeline at the forefront. This agreement was considered to enhance Greece's increasing role as an energy center in South-Eastern Europe.

3.3.2.2. The 2011 peak

The conflict was taken to the next level with the successful discovery of the Aphrodite gas field of RoC at the 2011 peak. Turkey and the TNRC, which reacted more aggressively than during the first peak, hastily signed an agreement and determined seven exploration blocks and took the first step in exploration by granting an exploration license to TPAO. Not content with this, Turkey tried to obstruct the drilling operation of Cyprus with military intervention. The countries of the region, especially Greece and RoC, reacted to Turkey's obstruction, the United States objected, and the EU discussed the issue in detail at its parliament, showing its support for Cyprus in various ways. Another conflict stemmed from the fact that Egypt cut off its gas exports to Israel and Lebanon, and the parties mutually blamed each other.

The discovery of the Aphrodite gas field by the RoC and the developments that followed dominated the Turkish and Greek press in 2011. It was the second-largest gas discovery after Leviathan in the region and the first discovery made by a country like RoC outside of Israel.

Table 7. The major contents of the news peaks in the newspapers.

Peak	Disputes	Actions	Explanations
2007	Dispute 1	Action	The RoC signed agreements with Lebanon for the delineation of an undersea border and with Egypt for the joint exploration of oil and gas potential off RoC shores. It also declared 13 blocks and open a bidding process to license offshore exploration.
		Reaction	Turkey considered them unacceptable and warned governments and companies not to implement the agreements until the RoC issue is resolved. It also sent a warship off the territorial waters of RoC to demonstrate its power.
		International Dimension	The RoC prepared a demarche to NATO to protect its positions. Turkey issued a stern note to RoC and sent a letter to the UN Secretary-General.
2011	Dispute 1	Action	The RoC's discovery of Aphrodite. Greece declared its determination to defend the sovereign rights of the RoC, RoC President stated that Turkey shows an illegal reaction. There was no question of postponing the RoC's drilling.
		Reaction	The TRNC and Turkey declared that such unilateral steps taken by RoC were unacceptable and that the TRNC also has rights to these sources. Turkey and the TRNC signed an EEZ agreement. The TRNC divided its own parcels into 7 and granted permission to TPAO. Turkey announced NAVTEX in the disputed area for Piri Reis escorted by warships. Conducting a small exercise in the maritime area of RoC, Ankara threatened to militarily block the planned drilling operations in Block 12.
		International Dimension	United States wanted the continuation of the drilling schedule, as did Russia, the EU, and Israel. The RoC and Greece complained about Turkey to the EU and the UN. The EU parliament discussed the issue and proposed to focus on a comprehensive solution to the problem. Merkel became the first German chancellor to visit Cyprus after 30 years and declared that she intended to play a more active role in the Cyprus issue.
	Dispute 2	Action	Egypt stopped gas export to Israel and Jordan following the terrorist attack on the pipeline. It also claimed that gas leaks have a serious cost to Egypt and that the prices are too low, asking that prices should be raised to the international level by revising the agreement
		Reaction	Israel and Jordan objected to Egypt's repeated postponement of the date of resumption of gas exports and Israel claimed that the signed agreement was still valid and in force and wanted the gas flow to be started as soon as possible and demanded compensation from Egypt to cover its damages.
		International Dimension	U.S. partner of the pipeline took Egypt to an international court for cutting off the flow of gas.
2019-2020	Dispute 1	Action	Turkey started an ambitious program by drilling four wells in 2019 and three wells in 2020 and conducting seismic research. It declared NAVTEX and sent warships to accompany its ships. It expressed its determination to continue its activities until RoC accepted the proposal for the co-management of natural resources of the island. Turkey signed two MoUs with Libya on maritime jurisdiction areas and cooperation. It announced that countries are aiming to deliver Eastern Mediterranean gas to Europe by bypassing Turkey and the EastMed pipeline cannot be constructed without Turkey's permission from the maritime jurisdiction areas it has delimited with Libya. In response to the pipeline treaty, Turkey announced that it would designate seven license areas in Libya's EEZ for oil exploration under the terms of the Libya agreement. Turkey claimed that its calls for diplomacy and dialogue have not been answered and stated that expanding Greece's maritime border to 12 miles was an act of war. In response to EU support for Greece, the Turkish President addressed a letter explaining its views to all EU leaders, except Greece and RoC. After German Chancellor Angela Merkel spoke to the President on the phone, Turkey postponed Oruç Reis' research activity.
		Reaction	A bill titled "The Eastern Mediterranean Security and Energy Partnership Act" was submitted to the Greek Parliament regarding Turkish violations in Greek airspace and the RoC EEZ. Greeks also declared their intention to participate in the Libya conference in Berlin and asked Libya to declare the agreement with Turkey on maritime jurisdiction invalid. Israel held a similar position. Greece declared a counter-Navtex and announced that it would conduct a military exercise in an area. It also bought 18 fighter jets from France, added four new frigates to the navy and strengthen the armed forces with 15 new troops. The energy ministers of seven founding states signed the joint declaration in Cairo for EMGF. Egypt, Israel, and RoC issued a joint statement targeting Turkey for drilling in the EEZ of RoC, violating Greece's airspace and its stance in Libya. The EastMed IGA was signed by Israel, Greece, and Cyprus in response to Turkish drilling in the Cypriot EEZ and the Turkey-Libya MoU. The Egyptian press included the statements that Turkey's EEZ agreement with Libya is illegal and the condemnations against this agreement. Egyptian officials think that the Turkish regime destabilizes the Eastern Mediterranean by using the refugee card to control the oil of the Eastern Mediterranean.
		International Dimension	The EU declared that it "stands in full solidarity with Greece and Cyprus regarding Turkey's recent actions in the Eastern Mediterranean." It also began discussing sanctions such as the suspension of negotiations on the Comprehensive Air Transport Agreement, the suspension of high-level contacts with Ankara, and the reduction of pre-accession EU funds transferred to Turkey. The United States expressed its concerns about Turkey's activities and stated that U.S., British, French, and Italian companies will not provide engineering services to Turkey. Foreign companies that are working with Turkey in Marmara have also declared that they will not provide services and materials in the Mediterranean. British and French authorities also expressed their concerns and condemned the Turkish behavior within the RoC EEZ. France also decided to participate in the Greece-Cyprus-Egypt trilateral group as of next year to support Athens. UAE also reacted.

At the same time, Greece was determined to defend the sovereign rights of the RoC, and there was no question of postponing the RoC's drilling because of Turkish threats. A solidarity front also formed on behalf of the RoC, and the United States wanted the drilling to continue, as did Russia, the EU, and Israel. In response to Turkey's activities, the RoC and Greece complained about Turkey to the EU and the UN, and RoC President stated that Turkey showed an illegal reaction. The European Parliament discussed the issue and proposed to focus on a comprehensive solution to the problem with the parties within the framework of the UN. It was also reported that dialogue was needed rather than threats, and the tension worried the EU. Meanwhile, Merkel became the first German chancellor to visit Cyprus after 30 years and declared that she intended to play a more active role in the Cyprus issue.

Greek newspapers also underlined the benefits of the Aphrodite discovery for RoC and Greece and its contribution to the peace and prosperity of the region and to mutual geopolitical and geo-economic interests. Greece can act as a coordinator between the Eastern Mediterranean countries that do not have good relations, with the aim of regional cooperation for the export of Leviathan and Aphrodite gas to the European market. The United States expressed its support for the exploration of natural resources in Greece and the construction of pipelines through the country. Israel also acknowledged Greece's importance for the pipeline.

On the other hand, the Egyptian press was busy with the dispute over the export of gas to Israel and Jordan. Israel and Jordan objected to Egypt's repeated postponement of the date of resumption of gas exports to them following a terrorist attack on the pipeline. Egyptian officials claimed that gas leaks created serious financial costs for Egypt and that the prices are too low. Officials also claim that an engineer in charge of the gas deal before the January 25 Revolution had taken a bribe from Israel to keep prices low and that the prices should be raised to the international level by revising the agreement. Israel, which claimed that the signed agreement was still valid and in force, wanted the gas flow to be started as soon as possible and demanded compensation from Egypt to cover its damages. Meanwhile, the U.S. partner of the pipeline took Egypt to an international court for cutting off the flow of gas.

3.3.2.3. The 2019-2020 peaks

The 2019-2020 peaks, unlike the first two, were due to Turkey starting intensive exploration activities and signing two MoUs with Libya. As a reaction, the countries of the region went to a permanent structure such as EMGF and signed the EastMed pipeline agreement. The EU, which reacted even more violently, started to impose sanctions on Turkey, demanding that it stop its illegal activities. Unable to withstand these reactions, Turkey halted exploration activities in the region.

Events that create significant tensions in regional relations were intense in 2019 newspapers. These included Turkey's oil and gas exploration activities and the signing of two MoUs with Libya and reactions and counter-reactions on these issues as well as the signing of the EMGF declaration and the discussions on the EastMed pipeline.

Turkey's gas exploration efforts left were prominently reported in Turkish and Greek newspapers. Turkey started an ambitious drilling program with its two drilling ships, Fatih and Yavuz, which were accompanied by warships to protect the ships and crew. Turkey also declared that it would continue its activities until RoC accepted the proposal for the co-management of natural resources of the island. Another initiative of Turkey that attracted a reaction was the agreement signed with Libya. Two MoUs on security and military cooperation and on the delimitation of the maritime jurisdiction areas in the Mediterranean were signed between the two countries.

Turkey's actions received strong reactions from the countries of the region and abroad. A bill titled "The Eastern Mediterranean Security and Energy Partnership Act" was submitted to Greek Congress regarding Turkish violations in Greek airspace and the RoC EEZ. Greeks also declared their intention to participate in the Libya conference to be held in Berlin and asked Libya to announce the agreement with Turkey on maritime jurisdiction invalid. Israel held a similar position. The EU declared that it "stands in full solidarity with Greece and Cyprus regarding Turkey's recent actions in the Eastern Mediterranean." It also began discussing sanctions such as the suspension of negotiations on the Comprehensive Air

Transport Agreement, the suspension of high-level contacts with Ankara, and the reduction of pre-accession EU funds transferred to Turkey. The United States also expressed its concerns about Turkey's activities and stated that U.S., British, French, and Italian companies would not provide engineering services to Turkey. Foreign companies working with Turkey in Marmara also declared that they would not provide services and materials in the Mediterranean. Britain was added as a guarantor to the countries that reacted by expressing its concerns. French officials condemned Turkish behavior within the RoC EEZ where the French company Total was carrying out drilling with the presence of French warships. France also decided to participate in the Greece-Cyprus-Egypt trilateral group the following year to support Athens.

As a countermove, Turkey started to look for alternatives from countries such as Russia and China. Russia announced that its companies would take decisions on commercial cooperation with Turkey in the Eastern Mediterranean. The Turkish president announced that the EastMed pipeline could not be constructed without Turkey's permission from the maritime jurisdiction areas it had drawn with Libya. Interpreting the relations established between the RoC and Greece as "enosis in energy", he also said that Turkey was determined to use its navy to protect the drill ships and crews unless the hydrocarbon resources are not shared fairly. He also noted that Turkey is ready for negotiations with all littoral countries except Southern Cyprus to determine maritime jurisdiction area fairly and equitably and to use energy as a means of cooperation, not as a means of conflict. Drawing attention to the fact that Turkey is also a guarantor country, the Turkish Foreign Minister stated that Turkey wanted to cooperate with the parties, but that the Greek Cypriot side did not. The Turkish Energy Minister stated that their activities are based on international law and that they would not take a step back from them.

The energy ministers of seven founding states (Egypt, Greece, Italy, Jordan, Israel, Cyprus, and the OPT) signed the joint declaration in Cairo for EMGF. The Egyptian press emphasized the country's strengthened position regionally with EMGF as a major player in the natural gas industry and Egypt uses this forum to become a trading and exporting gas hub. On the other hand, the Greek press said that the EMGF would make it easier for Greece to become a gas hub for the EastMed pipeline and strengthen Greece's leading role in the region. According to the Greek press, Israeli officials often highlighted the importance of Greece's role as coordinator in the region not only for energy security and energy cooperation but also for the EastMed and Euro-Asia interconnector projects. The EMGF was also seen as a facilitator of the EastMed pipeline by the Israelis. Turkey claimed that the countries are aiming to deliver Eastern Mediterranean gas to Europe by bypassing Turkey and the EastMed pipeline is not economically and technically feasible. It has also been argued that if it passes through Turkey, the cost of the project will be reduced by half. In addition, increasing the LNG facilities already in place in Israel and Egypt has been considered as an alternative to EastMed.

The topics covered in 2019 were similar in 2020. Turkey continued its exploration activities with drilling ships Fatih and Yavuz and seismic research ship Oruç Reis some of which were in the conflicted zones. Turkey also declared NAVTEX for them and sent warships. In response to the EastMed pipeline treaty, Turkey announced that it would designate seven license areas in Libya's EEZ for oil exploration under the terms of the agreement. The discovery of a gas field in the Black Sea was also announced.

Reactions to Turkey's exploration activities continued in 2020. According to the Greek press, the Turkey-Libya maritime delimitation agreement caused turmoil at the diplomatic level and put Turkey in a precarious position in the international arena. Greece declared a counter-Navtex and announced that it would conduct a military exercise in an area that partially overlaps with Oruç Reis's field of activity. Greece also bought 18 fighter jets from France, added four new frigates to the navy, and strengthened its armed forces with 15 new troops. Greece was also fully supported by France, which is willing to invest more in Greece. Egypt, the UAE, Greece, Israel, the RoC, and France issued a joint statement targeting Turkey for drilling in the EEZ of the RoC, violating Greece's airspace and its stance in Libya. The EU had several meetings on the imposition of sanctions on Turkey for its illegal behavior. The trilateral cooperation of Greece and the RoC with Egypt and Israel and EMGF is supported by the US. EMGF. The Mitsotakis-Trump meeting highlighted the importance of Greece for US interests and Greece is playing a central role in promoting U.S. interests in the Eastern Mediterranean region. American funds wanted to invest in major projects in Greece, the most important of which was the FSRU station in Alexandroupolis.

Turkey, which opposed the reactions in a similar way as in 2019, claims that its calls for diplomacy and dialogue have not been answered. The Turkish side interpreted the EastMed pipeline agreement as a violation of rights, exclusionary, and hostile, and stated that expanding Greece's maritime border to 12 nautical miles (nm) was an act of war. This policy dated to 1994, when the United Nations Convention on the Law of the Sea (UNCLOS) was ratified, and Greece submitted extend its territorial sea. Turkey responded by adopting a resolution in 1995 that would treat such an extension as a *casus belli*. Tension around this issue was inflamed in December 1995, when a Turkish cargo ship ran aground at Imia and refused help from Greek tugboats because he claimed the ship was in Turkish waters. This diplomatic crisis ultimately had to be settled with U.S. diplomatic intervention and led Turkey to launch a 'gray area' policy that strategically questioned Greek sovereignty over some islands in the Aegean and to improve its negotiating position on questions pertaining to the Cypriot continental shelf through lawfare and other diplomatic means (Syrigos and Dokos, 2020).

In response to the EU's support for Greece on the issue, the Turkish President addressed a letter to all EU leaders, except Greece and RoC. According to the letter, Turkey has two main goals: to share the maritime jurisdiction areas in accordance with international law and to guarantee the equal rights and interests of TNRC on the island's hydrocarbon resources. However, after German Chancellor Angela Merkel spoke to the president on the phone, Turkey postponed Oruç Reis' research activity. Erdoğan explained that Merkel had asked Turkey to postpone its research activity to give an opportunity for negotiations with Greece. As the threat of EU sanctions increased, Erdogan reversed the so-called "military stance" and began to emphasize diplomacy.

The Greek press emphasized the EastMed intergovernmental agreement signed by Israel, Greece, and Cyprus in response to Turkish drilling in the Cypriot EEZ and the Turkey-Libya MoU. A pre-contract was also signed between DEPA and Energean as the first step towards its commercialization. According to the Greek press, developments about the EastMed pipeline show the desire of the countries in the region to respond to Turkish provocativeness and to demonstrate the importance of regional energy and economic cooperation and stability in the region. This project is also supported by Egypt, which reached a partial agreement on the EEZ delimitation of its maritime zones with Greece in the summer of 2020. This situation brought Greece and Egypt, which have common views on the Libyan crisis, closer together. On the other hand, bilateral relations with Israel have reached a very high level in various areas, particularly in the exploitation of energy resources. Israel supports Greece on issues such as maritime zones, which was particularly emphasized during the Mitsotakis-Netanyahu meeting, as well as its opposition to any attempt to violate these rights.

On the other hand, the Egyptian press focused on the EMGF agreement signed in Cairo by Egypt, Israel, Greece, RoC, Italy, and Jordan. Several statements were made by Egyptian officials on how successful the EMGF has been at various local and international events. The Ministry of Petroleum stated how the EMGF would be a catalyst for achieving economic development, promoting peace, and ending conflicts in the region stand out. Some of the news reports are about the meetings about the structuring of the forum as a regional organization and the desire of many European and Arabian countries to participate in it. In addition, Egypt, which has large gas reserves and two LNG facilities, was often emphasized to form the basis of the EMGF with these characteristics. The Egyptian press included the statements that Turkey's EEZ agreement with Libya was illegal and the condemnations against this agreement. Egyptian officials think that the Turkish regime destabilized the eastern Mediterranean by using the refugee card to control the oil of the Eastern Mediterranean. Some news is also about the Turkish-Greek tensions over exploration for gas in the contested maritime zones. The Egyptian press also covered news about the gas agreements with Israel and Cyprus and the resumption of gas imports from Israel and the steps to implement the agreement on the transportation of Cypriot gas to Egypt through a pipeline. According to officials, Egypt is an important gas-exporting HUB in the region and will contribute to Europe's energy security by exporting the gas produced in the region through its gas agreements with Israel, Greece, and Cyprus.

4. Assessment of EMGES

EMGES, of which the essential elements, events, and critical moments are explained in detail in the previous section, are assessed critically by using an events chart within the framework of the systemic approach in this section (**Table 8**). Evaluations are made in four phases separated based on three critical moments of 2007, 2011, and 2019-2020: Phase I (1999-2006), Phase II (2007-2010), Phase III (2011-2018), and Phase IV (2019-2022).

4.1. Phase I (1999-2006): Initial period

Phase I is the beginning period of offshore oil and gas exploration and the first conflict in EMGES. In this phase, offshore exploration began based on the assumption that the oil and gas proven to exist on land could also be present in the sea. After this hypothesis was proved with the discoveries of the Ashqelon Noa and Mari-B fields by a Nobel-led consortium in Israel and the Gaza Marine field by British Gas in Palestinian territories made in 1999 and 2000, respectively, a new era began in the region (Gardosh et al., 2006, Beckwit, 2011; IME, 2018).

4.1.1. Israel's leadership

In the Mediterranean Sea, Israel has played the leading role, much like Britain in hydrocarbon exploration in the North Sea (Ross, 1986; Bjørlykke, 2019). The exploration strategy, which resulted in the discovery of the offshore West Sole gas field in 1965 on the assumption that structures like the onshore Groningen field would extend into the North Sea, was also achieved here (Barrera-Rey, 1997). Like Britain, Israel took important first steps by taking a risk. One of the most important reasons that motivated both England and Israel to play a leading role was that although they were one of the most powerful countries in their regions, they were dependent on foreign countries for energy.

Israel is the most developed country in the Eastern Mediterranean region, with a GDP per capita of \$52,170.7 (World Bank, n.d.) and an HDI of 0.919 (UNDP, 2022), and is the most technologically advanced one. It ranks 15th according to World Digital Competitiveness Report and 16th based on the most innovative countries in the world with a total number of patents granted of 9,032 (Haqqi, 2022).

Israel's superiority in the oil and gas industry in the region is also indisputable. With the Law of Petroleum of 1952, it was the first country in the region to enact an oil law and since then it has implemented an ambitious exploration program on its territory (Shaffer 2011). The Helez-Brur-Kokhav oil field in the Pleshet Basin has been the only producing oil field along the coastal belt of the Eastern Mediterranean since its discovery in the mid-1950s (Bein and Soffer, 1987; Liu et.al. 2017). The first offshore exploration wells drilled on the shallow shelf of Israel and northern Sinai in the late 1960s and early 1970s were also found dry (Gardosh et.al., 2008). The offshore wells drilled later from the mid-1970s to the late 1990s such as Ziv-1, Mango-1, Yam-1, 2, Yam West-1, and Yam Yafo-1, Or-1, and Nir-1, resulted in more success with some oil and gas shows, but no commercial production was made (Feinstein et.al., 2002). The total number of oil and gas wells drilled by Israel had reached 500 (IME, n.d.).

Israel has not only initiated exploration activities on land and in shallow waters but has also pioneered deep-water exploration in the region. The first discoveries, which gave serious clues about the potential of the Mediterranean Sea, led Israel to launch an extensive geological and geophysical exploration program in 2006 to move toward the deep waters (Gardosh et al., 2006; Zhang et al., 2019). The program, which was initiated by the Petroleum Commissioner of the State of Israel, was carried out by the country's Geological Survey and Geophysical Institute (Gardosh et al., 2006). Israel has not only developed necessary human resources and related institutions but also come to play an important place in the oil and gas sector thanks to companies such as the Israel-American joint venture Noble Energy Inc. and its partner Delek Group. In this way, Israel has grasped the close relationship between petroleum exploration and R&D and has achieved success by using the information obtained

Table 8. The events chart of EMGES

Events	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Discovery ¹	1	2,3									4,5	6	7,8	9,10	11	12	13			14	15			16,20	
Production ¹		2	2	2	2	2	2	2	2	2	2	2	2	2	2,4	4	4	4	4	4	4,6	4,6	4,6	4,6,11	
EEZ ²					CY-EG				CY-LB			CY-IL	NC-TR								TR-LY	GR-EG		LB-IL	
EastMed Pipeline ³																		P				IGA		US W	
GR-CY-EG Tripartite Summits ⁴																1	2,3	4	4	5	6	7	8	9	
GR-CY-IL Tripartite Summits ⁴																		1,2	3	4,5	6	7	8		
EMGF Ministerial Summits ⁴																					1,2	3	4,5,6	7,8	
Turkey's Drilling Activities ⁵																				1	2,3,4,5	6,7,8		9	
Turkey's Military Activities ⁶													Sep					Feb	Aug	Feb		Jul	Sep, Oct	Jan	
EU's Measures Against Turkey ⁶																						Jul	Feb, Nov, Dec		
Critical Moments																									

Notes:

1 See Table 4 for the names of the gas fields discovered.

2 CY: RoC, EG: Egypt, LB: Lebanon, IL: Israel, NC: TRNC, TR: Turkey, LY: Libya

3 P: proposal, IGA: Intergovernmental Agreement, US W: Withdrawal of U.S.A.

4 Numbers indicate the summit numbers.

5 See Table 5 for the names of the wells drilled by Turkey.

6 Months are given here.

in exploration activities in the right place (Adelman, 1970; Barrera-Rey, 1997). In addition, it has crafted its legal infrastructure to adapt to the changing conditions of the Natural Gas Industry Law of 2002 and established the necessary institutions such as the Ministry's Natural Gas Authority for planning, licensing, and regulating the domestic natural gas market (Shaffer 2011). In summary, Israel implemented all the requirements of the modern oil and gas exploration industry in a timely and correct manner. These reasons and Israel's actions in the face of future events show how justified it is in its idea of becoming a central actor within the region as well as a bridge between different regional spaces (Mitchell, 2021).

4.1.2. RoC the follower and the first conflict

The RoC, on the other hand, has benefited from Israel's experience to the maximum extent and has been the country that has followed it most closely. It started to develop similar hydrocarbon exploration strategies in its offshore areas by following the example of Israel. The first step of these strategies was to sign an EEZ agreement with Egypt in February 2003. It was the first agreement of its kind and caused to revive the discourse concerning the exclusive economic zones issue in the region (Doussis, 2004).

The reaction from Turkey to this agreement would come in March 2004. The Justice and Development Party (AKP) government, which took office by defeating the coalition government headed by the "Conqueror of Cyprus" Bulent Ecevit in the November 2002 elections, was experiencing serious problems due to the U.S. operation in Iraq. A week after the signing of the RoC-Egypt agreement, a bill authorizing the use of Turkish territory for the U.S. operation in Iraq was submitted to the parliament. After intense discussions, the bill was rejected on March 1, causing serious tensions in Turkish-U.S. relations, and marking the beginning of the deterioration of these relations.

Despite all this congestion, objecting to the RoC-Egypt agreement, the Turkish Government claimed that this delimitation concerned Turkey's ipso facto and ab initio legal and sovereign rights (Permanent Mission of Turkey to the UN, 2004; Schaller, 2022). After the Turkish Foreign Minister later said in 2018 that this agreement was invalid, Egypt issued an official statement saying that "any attempts to breach Egypt's rights were unacceptable and would be contested" (Ahram, 2018). Turkey's reaction to the EEZ delimitation initiative initiated by RoC and the counter-reaction of RoC, Greece, and Egypt to Turkey's reaction started the first action-reaction discourse in EMGES.

It was interesting that all these events took place during the execution of the Annan Plan, also known as the Cyprus reunification plan, which aimed to reunite Cyprus, which has been divided into north and south since July 1974 (Annan Plan, 2003). The plan, which was started with the visit of the UN Secretary-General Kofi Annan and U.S. President Bill Clinton to Turkey and Greece in November 1999, was unsuccessfully ended with the April 2004 referendum, which was supported by 65% of Turkish Cypriots, but only 24% of Greek Cypriots (Greek News, 2004). Only one week after it became clear that it would not be possible for the dual community on the island to come together, RoC was accepted as a full member of the EU, along with the other nine acceding countries on May 1, 2004.

Since then, RoC has assumed that its membership in the EU would contribute to the solution of the Cyprus problem in its favor and that it would gain an upper hand over Turkey, which has been a candidate member since 1999 (Tziarras, 2021). So, the EU started to get involved in EMGES by influencing events directly or indirectly. On the other hand, the accession of RoC to the EU brought it much closer to Greece, which shares a common ethnicity, heritage, religion, and language, leading to an exceptionally close relationship (Tziarras 2021). Since then, both countries have begun following similar strategies, often in coordination with each other (Tziarras 2021).

Contrary to what many expected, the acquisition of only southern Cyprus instead of the whole island being included in the EU was the beginning of the biggest conflict in the region. From then on, Turkey and TRNC strongly opposed the steps taken by RoC in EEZ delimitation and gas exploration claiming that RoC does not have the "legal, political or moral right to represent or act on behalf of the Turkish Cypriot people or the entire island" (Hughes, 2021, p. 1048). On the other hand, RoC began to claim Turkish activities in the region violated international law (Michael, 2015).

4.2. Phase II (2007-2010): Beginning of the gas revolution

The second phase was characterized by Cyprus launching exploration activities and Israel's successful gas discoveries. This period also witnessed the beginning of the most important conflicts in the region.

4.2.1. RoC's intensifying exploration activities

The year 2007, the beginning of the second phase, was an important juncture for EMGES. Although several onshore wells were drilled between 1949 and 1970 and offshore exploration was carried out between 1985 and 2000, no discovery was made (Kassinis, 2014). After becoming a member of the EU in 2004, with the courage of being a member of a strong global power, RoC focused more on the oil and gas issue and took important steps on it. It officially started its offshore exploration activities in 2006 with the acquisition of 2D and 3D seismic profiles and a training program for specialized oil and gas experts (Kassinis, 2014). In January 2007, it signed its second EEZ delimitation agreement with Lebanon and an agreement for the joint exploration of oil and gas potential off Cypriot shorelines with Egypt. It also declared 13 exploration blocks in January 2007, followed by opening a bidding process to license offshore gas and oil exploration in February 2007. Later, it awarded the exploration rights of Block 12 to Nobel Energy in October 2008. The fact that it gave its first drilling to an Israeli American partnership that made the first gas discovery in the Israeli sea showed that RoC was going to benefit from its experience as well as its power and relationships. Relations between the two countries began to move from a leader-follower level to a strategic partnership.

Reacting to RoC's attempts, Turkey considered them a violation of the integrity of the island and unacceptable, arguing that the island's natural resources belong to both the Turkish and Greek Cypriot communities (Çelikpala, 2021). It warned governments and companies not to take any action and implement the agreements until the Cyprus issue was resolved by issuing a stern note to RoC over the developments and sending a letter to the UN Secretary-General. It also sent a warship off the territorial waters of Cyprus to demonstrate its power in 2009. On the other hand, RoC blocked six of 35 EU-Turkey negotiation chapters in 2009 (Zalan, 2015) and prepared a demarche to NATO to protect its positions. Greece also accused Turkey's reaction as illegal, a provocation, and a threat and sent a counter-letter in response.

4.2.2. Israel's gas bonanza

Having continued its leadership in EMGES, Israel tested deeper parts of the sea with wells drilled in the Tamar and Dalit fields in 2009 and the Leviathan gas field in 2010. The result was even more successful than the first, and the discoveries of Tamar and Leviathan went down in history as the world's largest gas discovery in 2009 and one of the world's largest gas finds of the decade, respectively (Beckwith, 2011). More importantly, these discoveries confirmed significant gas accumulations in the Levantine Basin, revealing the region's high potential (Offshore Engineer Staff, 2009; Scandinavian Oil and Gas Magazine Staff, 2009; Offshore Staff, 2010). These achievements ushered in a new era called the "gas bonanza", a "game changer", or even a "revolution" in the Eastern Mediterranean region (Beckwit, 2011; Darbouche et.al. 2012; Shaffer, 2011; Nathanson and Levy 2012; Boncourt 2013; Schmid, 2013; Even and Eran, 2014; Erdoğan, 2021; Dimou, 2021; Badarin and Schumacher, 2022).

The strategic partnership between Israel and RoC was strengthened by the EEZ agreement signed on 17 December 2010. However, the timing of the agreement showed that a win-win relationship was at the center of this partnership. The well, which started in the Leviathan field by Nobel in October, was underway and it was probably clear that it would have a positive outcome (Offshore Technology, 2016). Israel should have waited until the last minute to sign such an agreement on December 17 and the

announcement of the discovery was made only after 13 days on December 30 (Offshore Energy, 2010). The signing of the EEZ agreement was also in the interest of RoC because the well it drilled very close to Israel's Leviathan field in the Aphrodite field in 2011 was gaseous.

The new gas discoveries were also a harbinger of upcoming disagreements in the region over maritime borders (Shaffer, 2011). A week after the Leviathan discovery, Lebanon's application to the UN about its border with Israel was rejected on the grounds that the UN Security Council Resolution 1701 did not cover the delineation of maritime borders (Beckwith, 2011). This border dispute has been fueled by the politicians of both countries and by external forces such as Iran (Shaffer, 2011). Egypt, which has said it will closely monitor its maritime borders, warned Israel not to let Israel's borders infringe on its territory and not to violate its EEZ agreement with RoC (Beckwith, 2011). However, these disputes were not so significant as the countries involved in them were not strong enough to influence the major dynamics of the system.

It was also important that around six months before the Leviathan well was started the US Geological Survey (USGS) made some changes in the hydrocarbon estimate of the Levantine Basin in March 2010. The new estimate of the undiscovered, technically recoverable gas reserves of the basin raised to 122.4 Tcf, varying between 50.1 Tcf and 227.4 Tcf (Schenk et al., 2010). Also, in April 2010, the Israeli minister of finance appointed a six-person committee called Sheshinski Committee and based on the recommendations of this committee, announced new incentive mechanisms, including the lowest tax rates below the level of counterparts in the world in November 2010 (Beckwith, 2011).

4.2.3. New international scheme in the region

In the year when the largest gas field in the region was discovered, the Arab Spring began. It was a series of uprisings and rebellious movements starting from Tunisia in 2010-2011 and spilling over into Libya, Egypt, Yemen, Syria, and Bahrain, continuing with the overthrow of rulers in Tunisia, Libya, and Egypt.

It caused several economic, social, security, and humanitarian problems in many Arab countries in the region (Tziarras, 2019b, p. 7) and weakened governance in the region (Rubin and Eiran, 2019, p. 980). In Egypt, for instance, an 18-month transition period spearheaded by the Supreme Council of the Armed Forces (SCAF) from February 2011 to June 2012 started with the Tahrir uprising in 2011. These developments also affected the diplomatic ties between Turkey and Israel because of the Gaza Freedom Flotilla affair on May 31, 2010, when Israeli military forces intervened and killed several Turkish nationals on board of Mavi Marmara ship carrying aid to the Gaza Strip (Mitchell, 2021; Çelikpala, 2021).

In addition to these developments, the withdrawal of U.S. forces from Iraq and of the 6th fleet from the Mediterranean Sea in 2011 as well as the rise of the so-called Islamic State (IS) further deteriorated regional security and stability (Tziarras, 2019b; Mitchell, 2021). Since Russia and Iran tried to fill the vacuum that has emerged, Israel, which was most affected by this withdrawal, has started to look for new partnerships by increasing its multilateral cooperation in the region (Mitchell, 2021). In this new situation, especially in an environment where Turkey's relations with Israel and Egypt have deteriorated, Cyprus has acted more freely to create a new security strategy by developing deeper relations with Israel and Egypt as well as Lebanon, Jordan, and later France and the UAE (Tziarras, 2021).

On the other hand, the dispute between Israel and Lebanon on EEZ delimitation continued in 2011. The Lebanese government submitted the coordinates of the boundary with Israel approved by the parliament on August 4, 2011, to the UN, but Israel objected to them (Cohen and Boms, 2021). Lebanon also objected to the maritime border agreement signed between Cyprus and Israel in December 2010.

4.3. Phase III (2011-2018): Stepping in of new players

The third phase started with the second critical moment, which resulted from the discovery of the

Aphrodite field in 2011 by RoC. It was the first time that gas was discovered by a country other than Israel. This discovery, which was the fourth largest in the region, was important enough to usher in a whole new era of relationships in the region. Later, in 2015, Egypt discovered the Zohr field, the largest gas field in the region. Tripartite relations between Greece, RoC, and Egypt as well as between Greece, RoC, and Israel started in 2014 and 2016, respectively. The EastMed pipeline project was also proposed in 2016 to export gas produced in the region to mainly Europe. The first conflict between Turkey and the EU also started at the end of this period in 2018.

4.3.1. The climax of the conflict between RoC and Turkey

RoC continued to closely follow Israel in every aspect. The success of Leviathan played a major role in shaping RoC's exploration strategy and the Aphrodite well was opened one year after the Leviathan discovery at the closest possible location to it. The Aphrodite field is so close (only 34 km west) to Israel's Leviathan gas field that it has been the subject of a dispute between Cyprus and Israel. Israeli authorities claimed that the Aphrodite field stretches into Israel's maritime zone and its production could reduce the amount of gas available in the Yishai field of Israel (Coren, 2018 a, b; Connely, 2023). On the other hand, as soon as the gas discovery at Leviathan was confirmed, Israel signed an EEZ agreement with RoC on December 17, 2010.

In response to the ambitious exploration activities of RoC, Turkey signed a continental shelf delimitation agreement with the TRNC on September 21, 2011, and the TRNC immediately granted the national oil company of Turkey TPAO an exploration license in the marine areas around the island after dividing its own parcels into seven on September 22. TPAO announced NAVTEX in the disputed area for its research vessel Piri Reis escorted by warships of the Turkish Navy. The fact that the agreement between Turkey and TNRC was made just two days after the announcement that the Aphrodite field had begun to be drilled on September 19, showed how serious Turkey was in its claims. As a matter of fact, a week after the signing of the agreement, it was announced that gas discovery was made at the field on September 28 (PR Newswire, 2011). It was also interesting that the agreement was not signed in Ankara or Nicosia but in New York, when Turkish President Erdoğan and TRNC President Derviş Eroğlu were there for the UN General Assembly (Şahin, 2020). With these agreements, Turkey entered gas exploration by starting seismic research in the region. In all Turkey's initiatives, the fact that the gas potential of the Cyprus maritime zones was proven with Aphrodite played a big role because Turkey is an energy import-dependent country and seeks to be a regional gas hub to diversify its natural gas resources (Çelikpala, 2021).

Turkey's attempt to prevent the drilling of RoC has led to various reactions, especially in Greece, which declared its determination to defend the sovereign rights of the RoC, and there was no question of postponing the RoC's drilling because of Turkish threats. RoC and Greece complained about Turkey to the EU and the UN. In addition to countries of the region such as Israel and Egypt, the United States and the EU also declared that they wanted the continuation of the drilling schedule. Meanwhile, Merkel became the first German chancellor to visit Cyprus island after 30 years and declared that she intended to play a more active role in the Cyprus issue.

4.3.2. New friendships are borne between Israel, Egypt, Greece, and RoC

The economic and sovereign debt crisis, which appeared after the global financial crisis of 2007-2008, impacted the foreign policy of Greece, making it more assertive after the 2010s (Tsardanidis, 2019; Tziarras 2021). Israel's search for new partners due to the deterioration of its relations with Turkey and RoC's new discovery prompted Greece to make a gradual shift toward a new role in EMGES (Tziarras 2021, p. 33). In addition, although it had drilled 40 exploration wells during the 1960s and 1970s, carried out intense seismic exploration between 1977 and 1987, and granted four offshore concessions in 1996, it had not found any serious hydrocarbons (Kassinis, 2014).

On the other hand, Israel, which has been an active participant in NATO's Mediterranean Dialogue since 1994 and was the first member of the dialogue group to establish a diplomatic mission to the organization, was also seeking partners who held common strategic interests (Mitchell, 2021). As a result, a very important rapprochement began in relations between Israel, Greece, and Cyprus in 2011. Netanyahu's visit to RoC greatly improved relations, as he was the first Israeli president to visit the island (Mitchell, 2021). This extended after 2013 to the signing of an energy memorandum of understanding and the start of trilateral summits between Israel, Greece, and RoC.

Similarly, the discovery of Aphrodite was an important turning point in the relations between RoC and Egypt. The bilateral relations between the two countries restarted with the visit of Egyptian Foreign Minister Mohamed Kamel Amr to RoC in November 2012 during the initial "revolutionary" phase (2011-2013) after the reign of President Hosni Mubarak (1981-2011) (Shama, 2021). He was the first high-ranking Egyptian official to visit Cyprus during the reign of Mohamed Morsi, who ruled the country between June 2012 and July 2013. This visit led to the development of trilateral relations between Egypt, RoC, and Greece in accordance with the substantive change in the foreign policy of new president Abdel Fattah al-Sisi (Shama, 2021). In September 2013, the three foreign ministers signed an agreement on the guidelines to improve cooperation in defining sea zones at the Egyptian Permanent Representation to the UN in New York in September 2013 (Psyllides, 2013).

The major reason for Egypt's improvement in relations with Greece and RoC was to promote the export of gas from RoC's Aphrodite to Egypt since Cairo was running out of gas and having an economic crisis (Petasis and Kyprianou, 2016; Marketos, 2021). In addition to this, Egypt was feeling insecure in the changing international environment. Libya had constituted a direct security threat to Egypt since its revolution in 2011 and the Turkish government began taking a hostile attitude towards the new leadership in Cairo after the removal of Morsi (Shama, 2021). In November 2013, Egypt expelled the Turkish ambassador, and Turkey reciprocated by taking similar measures (Shama, 2021).

Another reason for Egypt to develop trilateral relations with RoC and its protector Greece was Egypt's offshore exploration strategy. After the discovery of Aphrodite in 2011, Egypt wanted to test the areas close to this field in its own territorial waters and it should have done it without any problems on maritime boundaries with RoC. The talks that started in 2013 when the concession of the Zohr field was granted to Eni were accelerated after Abdel Fattah Al-Sisi took office after being elected in the presidential election in June 2014. A tripartite summit was held between RoC President Nicos Anastasiadis, Egyptian President Abdel Fatah Al Sisi, and Greek Prime Minister Alexis Tsipras in Cairo in November 2014, and Al-Sisi described it as marking "a new phase of trilateral cooperation, which began over a year ago" (Daily News Egypt, 2014). The main pillars of this summit were declared in the Cairo Declaration, which has become an annual event since then (Shama, 2021).

Therefore, it can be said that the military aspect of the cooperation between Egypt, Greece, and Cyprus is aimed at their common rival, Turkey (Shama, 2021). A new geopolitical order emerged in the region with Turkey as one of the poles and Cyprus, Greece, Israel, and Egypt as the other and it has been the cornerstone of Athens' and RoC's search for a new regional strategy (Tziarras, 2019 b, 2021). However, "it has also contributed to the "reshuffling of foreign policy preferences and domestic policy imperatives (in terms of the Cyprus Problem) in a way that might not necessarily be beneficial in the long run" (Tziarras, 2019b, p. 54). It was important specifically for RoC because "After the 2013 financial crisis in Cyprus, public debt is almost at 100% of GDP, unemployment rates are among the highest in the EU, and the nation's economic model is heavily based on services and tourism." (Tziarras, 2021, p. 41). However, because the Egypt-Cyprus-Greece partnership was developed to maximize each country's gains by considering only their own interests instead of prioritizing regional security, their tripartite alliance has been "a tactical short-term entente rather than a full-fledged alliance with clear responsibilities and binding commitments" (Shama, 2019, p. 106).

On the other hand, Israel discovered Tanin and Shimshon in 2012, Karish in 2013, and Royee in 2014. It also drilled two dry wells in 2012: Myra-1 and Sarah-1. The number of wells drilled by Israel reached 45 by 2009 (Bowman, 2011) and 500 of which 60 offshore by 2013 (Varshavsky, 2013).

4.3.3. Discovery of the Zohr field

The three leaders came together for the second time immediately after about six months in Nicosia in April 2015 (OneStopBrokers, 2015). Meanwhile, drilling has begun in the Zohr field located along the Egypt-RoC border on 3 July 2015 (Cozzi et.al., 2021) and Eni announced the discovery of a supergiant gas field on 30 August 2015 (Eni, 2015).

Now that Egypt had achieved its goal, its trilateral summits with the RoC and Greece could be made permanent. As a matter of fact, in the third tripartite summit held in Athens in December 2015, the leaders decided to establish a standing Joint Committee of Cooperation, which will formulate, develop, and promote practical projects of trilateral interest (Hellenic Republic, Ministry of Foreign Affairs, 2015). In the fourth summit held in Cairo in October 2016, free trade to access new markets is discussed. In July 2017, a tripartite MoU was signed on fostering cooperation between the three countries in ICT fields, and support research, innovation, and entrepreneurship (Ministry of Communications and Information Technology, 2017).

The Zohr discovery was Egypt's first in an offshore area outside the Nile Delta Basin. The exploration of hydrocarbons started in the Abu Madi Field located in the shallow water of the Nile Delta Basin in 1967 (Abu El-Ella, 1990; Abdel Aal et.al., 2000; Esestime et al., 2016; Liu et.al. 2017; Zhang et al., 2019; Sarhan, 2022). As a result of the successful exploration efforts carried out since then, Egypt's hydrocarbon reserves have recently reached 3.1 billion bbls of oil (0.2% share in the world) and 2.1 tcm of natural gas (1.1% share in the world) with annual productions of 608 thousand bbls daily of oil and 67.8 bcm of gas (BP, 2022).

This important discovery was a result of Egypt shifting its 40-year exploration strategy after the discoveries of Leviathan and Aphrodite (Boncourt, 2013). The Egyptian Natural Gas Holding Company (EGAS) decided to test the deep/ultra-deep-water section located along the Egypt-RoC border with the Zohr-1 well (Cozzi et.al., 2021). All previous discoveries had been made in clastic reservoirs, and this was the first well targeting Early to Middle Miocene carbonate reefal build-up play in the East Mediterranean (Esestime et al., 2016; Cozzi et.al., 2021). The discovery of the Zohr field was "a game-changer" and "reshaped the energy scenario of the whole Eastern Mediterranean (Esestime et al., 2016; Cozzi et.al., 2021). This discovery not only showed the importance of carbonate reservoir rocks but also made the Eratosthenes Platform an important area for exploration. The presence of active oil and gas fields and the exploration of new ones have attracted interest to the Eratosthenes Seamount, which is a bathymetric high (Kokinou and Panagiotakis, 2018).

Just as Egypt changed its exploration strategy after the discovery of Aphrodite, RoC changed its own strategy after the discovery of Zohr. This time RoC began to test around the Zohr field on the rise of the Eratosthenes high. But unfortunately, out of the three wells RoC drilled in 2017-2018, the Onesiphorus West-1 and Delphyne wells were dry, while only Calypso was gaseous.

4.3.4. Israel, Greece, and RoC and EastMed Pipeline

A trilateral relationship, which started between Egypt, Greece, and RoC in 2014, was established between Israel, Greece, and RoC in 2016 for similar economic reasons. As Egypt's initiation developed in order not to have problems with the drilling of the Zohr field, Israel also established a relationship with Greece and RoC to facilitate its pipeline project. The first trilateral summit between Cyprus President Nicos Anastasiades, Israel Prime Minister Benjamin Netanyahu, and Greek Prime Minister Alexis Tsipras was held in Nicosia on 28 January 2016, only about two months after the third tripartite summit between RoC, Greece, and Egypt when leaders decided to establish a standing Joint Committee of Cooperation. After the summit, Netanyahu made his intention clear by saying that the three countries were to form a trilateral committee to study plans to build a pipeline to export their gas and a framework agreement was also signed with the developers to market up to 60% of Israel's natural gas reserves for export (Mitchell, 2021).

The \$6-billion, 1,900-kilometer EastMed pipeline project would carry Mediterranean natural gas to Europe via Greece and Italy (Harkov, 2022) and provide 9-12 bcm yearly in its first stage and 20 bcm in later stages and be one of the longest and deepest underwater pipelines in the world (Krasna 2022; Tugwell and Georgiou, 2022). Since 2015, the EU has classified the Eastern Mediterranean as “a key priority for its energy diversification strategy to ensure the security of supply and reduce European dependence on Russian gas, especially after diplomatic tension following Russia’s annexation of Crimea in 2014” and EastMed as a project of mutual interest for the EU in 2015 as part of the Southern Gas Corridor framework (Talbot 2021, p. 132-133).

The pipeline propelled Israel to improve trilateral relations with RoC and Greece to find a common solution for the transportation of the discovered gas from the fields that were so geographically proximate (Stergiou, 2019). For the same reason, Israel also sought to improve its relations with Turkey, which deteriorated in 2010 due to the Mavi Marmara incident (Çelikpala, 2021), and began to expand its naval budget to protect its new offshore infrastructure in 2016 (Mitchell, 2021).

4.3.5. Attempted Coup in Turkey and Blue Homeland

Turkey, on the other hand, was busy with a series of fictitious lawsuits such as Ergenekon, Kafes, Poyrazköy, Balyoz, and Military Espionage, which purged 40 admirals and 400 sailors of the Turkish navy with false evidence and slander and imprisoned since 2014 (Gürdeniz, 2020). Turkey was also facing the migrant crisis caused by Syrians’ flocking to Europe in 2015.

Although Turkey’s relations with the EU were not going well due to Cyprus’ blockade in 2009, German Chancellor Angela Merkel visited Turkey in October 2015 to tell that her government is backing to restart of entry talks with Turkey on the economy and monetary policy chapters to accelerate accession talks (Zalan, 2015). But her main goal was to get Turkey’s support for the huge influx of migrants and refugees into Europe, particularly Germany (Zalan, 2015).

The EU wanted to work together to end irregular migration from Turkey, which Turkey has become a major transit or destination country for such migrants and refugees from the Middle East (including Syria) and Africa (Aydın, 2016). A series of meetings about strengthening cooperation on the migration crisis between the EU and Turkey, which were held starting with the activation of the EU-Turkey Joint Action Plan in November 2015 resulted in an agreement aimed at stopping the flow of irregular migration via Turkey to Europe in March 2016 (Corrao, 2019). According to this agreement, irregular migrants attempting to enter Greece would be returned to Turkey, and Ankara would take steps to prevent new migratory routes from opening (Terry, 2021). The number of migrants brought to Europe under the EU-Turkey deal reached 26,835 from April 2016 to March 2020, of which 9,967 went to Germany, more than twice the amount of people who went to France (Kızıl, 2020).

Cypriot officials, on the other hand, opposed the EU’s proposal to restart the talks in exchange for Ankara’s help in tackling Europe’s migrant crisis and announced that they would not give up the veto (Kambas, 2015). This attitude of Cyprus further worsened the relations between Ankara and Nicosia (Çelikpala, 2021). After the failed coup attempt of July 2016, there was a profound shift in Turkey’s strategy on equitably sharing maritime jurisdiction zones in the Eastern Mediterranean.

The concept of Blue Homeland (Mavi Vatan), which was introduced by Rear Admiral Cem Gürdeniz at a military conference in 2016 and later developed by Rear Admiral Cihat Yaycı, has been Turkey’s strategy based on military power in the seas (Yaycı, 2019; Gürdeniz, 2020; Hürriyet, 2020; Mavi Vatan, 2023). From this perspective, Blue Homeland becomes “an extension at sea and seabed of Turkey’s homeland located between 26-45 East longitudes and 36-42 North latitudes. Blue Homeland is the name of our zone of interest and jurisdiction over salty and fresh waters located between 25-45 East longitudes and 33-43 North latitudes” (Çelikpala, 2021, p. 51-52). Blue Homeland later became a strategy to define, safeguard, and develop Turkey’s maritime rights and national interests in the territorial waters, the continental shelf, and the EEZ (Çelikpala, 2021, p. 52).

On the other hand, the coup d’état attempt caused a deterioration in U.S.-Turkish relations, as the country’s foreign policy gradually shifted towards seeking partnerships with other powers such as

Russia and China (Bardakçı, 2022). The Blue Homeland policy is ultimately consistent with the Turkey's historical stance of defending its claims to a continental shelf limit that extends up to a median line with the Egyptian EEZ, upon which Cyprus' offshore blocks encroach. For Turkey, hydrocarbon activities must consider the rights of Turkish Cypriots, which requires a solution to the Cyprus problem more broadly (Ioannides, 2020).

4.3.6. The EastMed pipeline project

The three leaders of Israel, Greece, and RoC convened for the second time in Jerusalem in December 2016 and Israel's Energy Minister Yuval Steinitz met with his Greek counterpart, Giorgos Stathakis to discuss the possibility of a gas pipeline from the Israeli and Cyprus offshore gas fields through Greece to Europe (BICOM, 2016). Discussions on the topics of energy resources and transport routes and making Greece an "energy hub" for the Israeli and RoC gases continued in the third summit, which was held in Thessaloniki in June 2017 (Communist Party of Greece, 2017).

Meanwhile, Lebanon signed a maritime border agreement with Cyprus in January 2017, but this agreement was never ratified by the Lebanese Parliament, largely due to pressure from Turkey (Cohen and Boms, 2021). In 2017, Russian companies also entered gas exploration in the region; Rosneft acquired 30% of the Zohr field from Eni, and Novatek together with Eni and Total obtained an exploitation license in Lebanese waters (Marketos, 2021, p. 57).

The pipeline-related developments accelerated after 2018. This issue was the centerpiece of the fourth tripartite meeting, which was held in Thessaloniki in May 2018, and the leaders discussed the details of a pipeline that will cost €6 billion and take six to seven years to build (Associated Press, 2018). The EU, which was also looking favorably on the EastMed project to provide an alternative gas source for energy-hungry Europe (Euronews, 2020), had set aside €34.5 million to fund a technical study (Associated Press, 2018).

At the fifth summit in Beersheba in December 2018, the leaders agreed to establish a permanent secretariat to be based in Nicosia and reconfirmed their support and commitment to the East-Med Pipeline Project. They also reached an agreement on the text of the Intergovernmental Agreement (IGA) to be forwarded to the fourth partner Italy and thereafter to the European Commission for review (Greek Embassy in Israel, 2018), with the United States also conveying its support for the pipeline through its Ambassador to Israel David Friedman (Hürriyet Daily News, 2019). At the sixth summit in Jerusalem in March 2019, U.S. Secretary of State Mike Pompeo also attended the meeting to confirm its support (Hürriyet Daily News, 2019).

4.3.7. Dispute between Turkey and the EU

The emergence of the trilateral partnerships and the EastMed pipeline presented challenges for Turkey's foreign and economic policies (İşeri and Bartan Çağrı, 2019, p. 120). Although the project was expected to offer a route to peace (Hayes and Victor 2006), it provoked political tensions since it excluded all parties concerned (Shaffer 2013; İşeri and Bartan Çağrı, 2019). Extremely disturbed by all these developments, Turkey turned to naval brinkmanship by provocatively harassing exploration vessels of international companies, creating a series of diplomatic crises, and conducting its own seismic surveying activity in contested waters, which is legal according to international law.

It first sent warships to prevent the Italian drilling ship Saipem 12000 from entering Block 3 of RoC in February 2018 and extended the termination date of its Navigational Telexes (NAVTEX) to March 10 (Özalp, 2018). In March 2018, Turkey arrested two Greek soldiers for entering a military zone in the province of Edirne (Hürriyet Daily News, 2018a,b). Turkey's actions started the first conflict between Turkey and the EU.

The European Council reacted by strongly condemning "Turkey's continued illegal actions in the Eastern Mediterranean and the Aegean Sea and recalled Turkey's obligation to respect international law and good neighborly relations and to normalize relations with all EU Member States" (SWD, 2018; 153

final Commission Staff Working Document). Ignoring the EU's soft warning, Turkey started drilling in the region for the first time, with TPAO's Fatih drilling ship drilling in Turkey's marine zone off the coast of Alanya in October 2018. Turkey also undertook seismic research activities and threatened to conduct its own drilling activities for hydrocarbon exploration in the RoC's EEZ (Aleem, 2018; Daily Sabah, 2018, 2019; SWD, 2019; 220 final Commission Staff Working Document).

Meanwhile, in September 2018, Egypt and Cyprus signed an agreement for a pipeline, connecting Cyprus' Aphrodite gas field to Damietta and Idku (Mohammed, 2018). After the discovery of the Zohr field in 2015, Egypt became a net gas exporter starting in 2018 and became a gas hub in the region with its LNG facilities (Krasna, 2022).

4.4. Phase IV (2019-2022): Difficult times for everybody

This phase started with the establishment of a regional forum called East Mediterranean Gas Forum (EMGF) by joining the two tripartite relations between Greece, RoC, and Egypt and Greece, RoC, and Israel. As a reaction, Turkey signed an agreement with Libya in 2019 and followed by a series of actions and reactions between Turkey, the regional states, the EU, and the US. Conflicts escalated because of Turkey's ambitious exploration program, resulting in a series of embargoes from the EU.

4.4.1. Towards a regional organization EMGF

In 2019, the two trilateral partnerships between Egypt, the RoC, and Greece, and Israel, the RoC, and Greece joined together and turned into a permanent forum on a regional scale. The first ministerial meeting of the EMGF with the participation of Cypriot, Greek, Israeli, Italian, Jordanian, and Palestinian Ministers of Energy, and the first High-Level Working Group Meeting was held in Cairo in January 2019. Later in November, the EMGF Gas Industry Advisory Committee was established as a vehicle to allow the participation of the private sector in this first formal regional organization in the Eastern Mediterranean (Mitchell, 2021).

Egypt was at the forefront of the formation of the EMGF (Shama, 2021, p. 70). In addition to its key geographic location, it had two liquefied natural gas plants located in the Mediterranean cities of Idku and Damietta (Tanchum, 2020) and had already initiated trilateral relations with RoC and Greece to facilitate the drilling of Zohr in 2014; now, it wanted regional cooperation including with Israel to export of the gas. For this reason, it proposed the EMGF as a platform for structured policy dialogue in the region at the tripartite summit in October 2018 in Crete, with the three leaders declaring their intentions to establish the forum. In addition, Egypt established two military bases, the Barrani and the Mohamed Naguib bases (Shama, 2021), the largest in the Middle East, making Egypt the seventh most powerful navy in the world (Global Firepower, 2021; Shama, 2019).

A regional organization like the EMGF was also in Israel's interest. The tripartite relations with RoC and Greece, which it had initiated in 2016 for the purpose of exporting its gas, had not yet achieved their goal. U.S. support to the EastMed gas pipeline project, which was supported by the EU from the beginning, was not enough. Following decades of relative isolation in the region, Israel's relationship with Egypt, which has experienced a renaissance, was the foundation of the EMGF (Mitchell, 2021). On the other hand, Greece, which began pursuing a more active policy since 2015, aimed to become a regional energy hub to enhance its energy security (Tsardanidis, 2019).

As is seen, although these countries declared their aim as transforming the gas issue into regional cooperation, their initiative was politically motivated rather than based on the realities of the region (Stergiou, 2019) and enabled only limited short to medium-term economic and geopolitical profit (Badarin and Schumacher, 2022). This has led to geopolitical and economic problems in the region.

4.4.2. Turkey's reaction to the EMGF

Meanwhile, Turkey's exclusion from both the EastMed pipeline and the EMGF came on the heels of stalled accession negotiations with the EU (Badarin and Schumacher, 2022). In response to the developments related to the EMGF, Turkey continued drilling in 2019 with four wells: Finike-1 in May, Karpaz-1 in August, Güzelyurt-1 in October, and Magosa-1 in November. Among them, Finike-1 and Güzelyurt-1 were drilled in zones that conflicted with RoC (Talbot 2021). Turkey also declared NAVTEX and sent warships to protect its drill ships and seismic research ship Oruç Reis to the conflicted zones. It also, for the first time, deployed the Blue Homeland Exercise simultaneously in the Black, Aegean, and Mediterranean Seas between from February to March (Yaycı, 2019; Gürdeniz, 2020; Hürriyet, 2020; Mavi Vatan, 2023). It was the largest naval drill in its history together with "Seawolf" (Kasapoğlu, 2019). Blue Homeland is not merely an exercise codename; it is also a geopolitical concept that manifests Ankara's political-military agenda in the coming decade. (Kasapoğlu, 2019).

In addition, part of the Blue Homeland doctrine was also Turkey's arbitrary EEZ agreement with Libya, which disregarded Greece's sovereign rights (Fredriksen and Tziarras, 2020). Turkey signed two MoUs with Faye El Saraj, Chairman of the Presidential Council of Libya, on the delimitation of the maritime jurisdiction areas in the Mediterranean and security and military cooperation in November 2019 and announced that it would designate seven license areas in Libya's EEZ exploration under the terms of the Libya agreement. Libya has been divided between the UN-recognized, Tripoli-based Government of National Accord (GNA) and the government in Tobruk supported by the forces of Haftar, and Turkey signed the agreement with GNA (Shama, 2021).

According to Marketos (2021, p. 55), with the agreement with Libya, Turkey sought: (1) to cancel any possible cooperation between Greece, Cyprus, Israel, and Egypt in the Eastern Mediterranean, (2) exert pressure on Athens and Nicosia, (3) restrain any in-depth offshore energy exploration in the region, (4) assure that it would receive some of the multibillion-dollar Libyan debt owed to Turkish companies, and (5) grab a part of the oil and gas wealth that Libya holds, seeking more hydrocarbon exports to Turkey. With this agreement, Turkey actively assisted Russia's cause to enable Eastern Mediterranean gas to reach the European market with the EastMed pipeline (Marketos, 2021, p. 54-55).

4.4.3. Reactions to Turkey's actions

These initiatives of Turkey led to the beginning of a new conflict-oriented era in EMGES. In January 2020, one year after the establishment of the EMGF, the EastMed pipeline project's IA was signed by Israel, Greece, and RoC at their 7th summit held in Athens in response to Turkish drilling in the Cypriot EEZ and the Turkey-Libya MoU (Euronews, 2020). A pre-contract has also been signed between DEPA and Energean as the first step towards its commercialization. The developments in the EastMed pipeline show the countries' desire to respond to Turkish provocativeness and to demonstrate the importance of regional energy and economic cooperation and stability. At the 8th summit of Israel, Greece, and RoC held in Jerusalem in December 2021, a permanent secretariat for the Trilateral Mechanisms was established and a permanent secretary was appointed by going one step further. The main purpose of the secretariat was the realization of the pipeline (PIO, 2021).

The first reactions came from Greece. A bill titled "The Eastern Mediterranean Security and Energy Partnership Act" was submitted to Greek Congress regarding Turkish violations in Greek airspace and the RoC EEZ. Greeks also declared their intention to participate in the Libya conference to be held in Berlin and asked Libya to nullify its maritime border agreement with Turkey. Israel held a similar position. Greece also tried to get the EU to join its efforts to block Turkey. France responded positively and began to carry out aggressive lobbying activity against Turkey (Çelikpala, 2021). France also joined the joint statement by the foreign ministries of Egypt, Greece, and Cyprus, considering the Turkish-Libyan deal "null and void" (Shama, 2021, p. 73). Turkey interpreted this as "Greece acting unilaterally and trying to internationalize the issue by arguing it is an EU issue" (Çelikpala, 2021, p. 55). Greece also signed an EEZ agreement with Egypt in August 2020 that it submitted to the UN Organization according to the International Law of the Sea (Shama, 2021; Pecinar, 2021; Marketos, 2021; Çelikpala,

2021). The 8th tripartite summit considered it “a milestone agreement which has been concluded in full compliance with International Law as reflected in UNCLOS, as it contributes to stability and security in the East Mediterranean region.” It was mediated by Germany (Çelikpala, 2021, p. 56).

Cairo also strongly rejected the deal (Shama, 2021). In addition to the maritime delimitation agreement with Greece, Egypt developed its energy cooperation with Cyprus and Israel and with Greece, Italy, Jordan, and the OPT (Shama, 2021, p. 72). It is also important to note that Egypt and Israel have importantly never made statements or taken actions that might alienate Turkey, preferring instead that Greece and Turkey solve their bilateral issues. Both countries have their own relations and issues with Turkey, so while they do not alienate their Greek partners they also do not join them in disputing Turkey’s claims, providing them commercial and diplomatic space to operate within the shifting landscape of the region’s geopolitics.

The beginning of the flow of gas from the Israeli fields of Tamar and Leviathan to Egypt as part of a \$15 billion deal signed in 2018 helped to tighten Egypt’s relations with Israel (Rabinobitch and Cohen, 2019; Shama, 2021). As part of this cooperation, Egypt carried out several military drills with Greece and RoC between 2014 and 2020 (Farouk, 2019; Shama, 2021). In addition, Egypt developed its naval forces by establishing two military bases in the Mediterranean: The Barrani Base, near its porous border with conflict-ridden Libya, and the Mohamed Naguib base west of Alexandria, proclaimed to be the largest military base in the Middle East (Shama, 2021) and became to have the seventh most powerful navy in the world (Global Firepower, 2021; Shama, 2019).

In addition to the countries in the region, the EU and the US also condemned the Turkish-Libyan agreement, declaring their support of the rights of Greece, Cyprus, Israel, and Egypt (Marketos, 2021). The EU, which raised its previous reaction by one level by claiming that the agreement between Turkey and Libya increased tensions in the region urged Ankara to stop its “continued and illegal drilling activities” (Talbot, 2021). Having considered the Finike-1 well as “unauthorized drilling activity”, the European Council decided “to suspend negotiations with Turkey on the Comprehensive Air Transport Agreement, not to hold for the time being the EU-Turkey Association Council as well as further meetings of the EU-Turkey high-level dialogues, to endorse the Commission’s proposal to reduce the pre-accession assistance to Turkey for 2020 and to invite the European Investment Bank to review its lending activities in Turkey” in July 2019. The EU further decided in February 2020 to add two individuals to the list of designations under this sanction’s framework (SWD, 2020; 355 final Commission Staff Working Document). However, these measures were “more symbolic rather than effective” and “did not discourage Ankara from continuing exploration activities in contested waters” (Talbot 2021, p. 135-136). Also, “The Turkish government no longer regards the European Union as a sincere partner, and thus the EU has lost any leverage it once had over Turkey” (Çelikpala, 2021, p. 55). On the other hand, the Turkey-Libya agreement brought some EU member states like France and Italy, closer to the EMGF (Marketos, 2021, p. 51).

The United States has expressed its concerns about Turkey’s activities and stated that U.S., British, French, and Italian companies will not provide engineering services to Turkey. Foreign companies that are working with Turkey in Marmara have also declared that they will not provide services and materials in the Mediterranean. Britain was added as a guarantor to the countries that reacted such as the EU and the United States by expressing its concerns. French officials condemned the Turkish behavior within the RoC’s EEZ where French company TotalEnergies was carrying out drilling with the presence of French warships. France also decided to participate in the Greece-Cyprus-Egypt trilateral group as of the following year to support Athens.

4.4.4. EMGF: A permanent regional organization

In September 2020, by combining both trilateral summits, a strong permanent structure was established, transforming EMGF into a regional organization (Talbot, 2021). The seven founding members (Egypt, Cyprus, Greece, Israel, Italy, Jordan, and the OPT) signed the EMGF’s formal charter in September 2020, with an additional framework agreement signed in January 2021 and the charter

legally entering into force in March 2021. The headquarters of the organization is in Cairo, confirming Egypt's leadership in the initiative.

The reaction of the 8th tripartite summit between RoC, Greece, and Egypt, which was held in October 2020 was also stronger. They reiterated that the MoUs signed between Turkey and Libya were “in contravention of international law and the UN arms embargo in Libya and that both undermine regional stability”. The countries also recalled that the MoU on the delimitation of maritime jurisdiction “infringes upon the sovereign rights of third States, does not comply with the Law of the Sea and cannot produce any legal consequences”. They also reiterated “their unwavering support to the efforts of RoC to reach a comprehensive, just, and viable solution to the Cyprus problem based on the relevant UN Security Council Resolutions and international law.” They said, “the termination of the anachronistic security arrangements and the withdrawal of foreign forces remain a sine qua non for the Republic of Cyprus as a sovereign state.” The summit strongly condemned “Turkey’s illegal drilling and seismic operations in Cyprus’ EEZ/continental shelf, in marine areas already delimited in accordance with international law, including between the Republic of Cyprus and the Arab Republic of Egypt, by means of the 2003 EEZ Delimitation Agreement” and “Turkey’s practices in undermining regional stability, and confirmed that its exploration in the eastern Mediterranean is illegal.”

Reactions against Turkey’s exploration activities continued in 2020. Greece was expecting that it could replace Turkey as the foremost Western ally in south-eastern Europe given that Turkey was drifting away from its Western allies (The National Herald, 2020). According to the Greek press, the Turkey-Libya maritime delimitation agreement caused turmoil at the diplomatic level and put Turkey in a precarious position in the international arena. Greece declared a counter-NAVTEX and announced that it would conduct a military exercise in an area that partially overlaps with Oruç Reis’s field of activity. Greece also bought 18 fighter jets from France, added four new frigates to the navy, and strengthened the armed forces with 15 new troops battalions. The reason for France’s support of Greece was mainly the dispute between France and Turkey over Libya and France’s willingness to invest more in Greece (Pecinar, 2021). Subsequently, a part of France’s support for the Greek position can be traced to the dispute between France and Turkey over Libya (Pecinar, 2021).

The strong reactions from the region and the EU and the United States have been a main factor in Turkey’s approaching Russia (Çelikpala, 2021, p. 55). Russia has modernized its fleet and established a permanent naval task force in the Mediterranean and even joined in some gas projects (Mamedov, 2021). On the other hand, Turkey no longer regarded the European Union as a sincere partner (Çelikpala, 2021). Russia announced that its companies may take decisions on commercial cooperation with Turkey in the Eastern Mediterranean.

The Turkish president also announced that the EastMed pipeline cannot be constructed without Turkey’s permission due to its delimitation agreement with Libya. Interpreting the relations established between the RoC and Greece as “enosis in energy”, he also said that Turkey is determined to use the Navy to protect the drill ships and crews unless the hydrocarbon resources are not shared fairly. He also noted that Turkey is ready for negotiations with all littoral countries except Southern Cyprus to determine maritime jurisdiction areas fairly and equitably and to use energy as a means of cooperation, not as a means of conflict. Drawing attention to the fact that Turkey is also a guarantor country, the Turkish Foreign Minister stated that Turkey wanted to cooperate with the parties, but that the Greek Cypriot side did not. Moreover, the minister stated that their activities were based on international law and that they would not retreat from them.

4.4.5. The Covid-19 pandemic and Turkey-EU relations

The Covid-19 pandemic unexpectedly disrupted EMGES (Mitchell, 2021). Major international oil companies that operated in the RoC’s EEZ such as TotalEnergies, Eni, and ExxonMobil had to suspend operations and, in their absence in the region, Ankara sent its Fatih and Yavuz drill ships (Tziarras 2021). Turkey continued to drill wells in 2020 with Narlıkuyu in March 2020, Lefkoşa in April 2020, and Selçuklu in October 2020. Among them, the Lefkoşa and Selçuklu wells were drilled in the conflicted zones.

During the summer of 2020, Turkey and Greece once again took steps to escalate tensions. Turkey's successive NAVTEX declarations to Greece and its deployment of warships were followed by Greece's mobilization of its warships (Çelikpala, 2021). According to Tziarras (2021, p. 44), Turkey's activities grew out of "not only by the power vacuum in the area but also by the fact the Turkish political system has in recent years become authoritarian and leader centric."

German Chancellor Angela Merkel accelerated her attempts to isolate Turkey by forming a counter front. In late August 2020, she stated that "all European Union countries have an obligation to support Greece on the Eastern Mediterranean issue" after she had "dealt with the issue in-depth" with French President Emmanuel Macron (Ekathimerini, 2020). Turkey was extremely dissatisfied with the statement by Merkel, who Turkey thought would play a constructive role during Germany's presidency of the Council of the EU (Çelikpala, 2021, p. 56).

Erdogan sent a letter to the heads of EU institutions, as well as the leaders of member countries except for Greece and the Greek Cypriot administration, reiterating Ankara's call for dialogue with Greece (Beyaz, 2020). He underlined that relations with Brussels have always been a priority for Turkey and that "significant progress has been achieved in this regard, especially during our term in office" despite "compelling challenges" in the six decades spanning the two sides' relations.

In response to Turkey's "continued and new unauthorized hydrocarbon exploration activities in the maritime zones of Cyprus and Greece," the European Council extended the duration of the existing framework for restrictive measures in November 2020 (SWD (2021) 290 final Commission Staff Working Document). Before the December meeting, where the European Council would decide on Turkey, the lobbying activities between the countries of the region and the EU increased considerably. In October, there was a serious difference of opinion among states: while Cyprus, France, and Greece supported a firm and assertive approach by taking a hard line against Turkey, EU states such as Malta, Italy, and Spain led by economic powerhouse Germany was in favor of a more diplomatic approach and the search for dialogue (Talbot, 2021, p. 136; Çelikpala, 2021). Although the EU embraced the strategy of the Eastern Mediterranean to be stable and secure, the member states did not agree on a common foreign policy approach because each state puts its national interests first (Talbot, 2021).

As a result of this division among EU member states over Turkey, a bilateral decision was adopted at the EU leaders' summit in December 2020. On one side, the EU strongly condemned "Turkey's unilateral actions, provocations and escalated rhetoric against the EU, EU Member States and European Leaders" (SWD (2021) 290 final Commission Staff Working Document). On the other side, the EU postponed any decision to the following European Council in March 2021 (Talbot 2021, p. 137). As acknowledged in the progress report, "After December 2020, a more positive dynamic in the EU-Turkey relations was observed following the de-escalation in the Eastern Mediterranean through the discontinuation of illegal hydrocarbon exploration and drilling activities by Turkey in the maritime zones of Cyprus and Greece and the resumption of exploratory talks between Turkey and Greece in January 2021" (SWD, 2021; 290 final Commission Staff Working Document). At the European Council in March 2021, the EU presented a "positive agenda" which envisions a 'stick and carrots' approach to relaunch cooperation with Turkey." (Talbot 2021, p. 137). This was the most positive development between Turkey and the EU since the negotiations had halted in 2016 due to the Greek side's reluctance to start negotiations and after that, Turkish officials started to talk more positively about the EU to "turn a new page" in relations (Çelikpala, 2021, p. 58).

Financial hardship because of the COVID-19 pandemic was one reason Ankara changed its policies to contribute to de-escalation (Çelikpala, 2021, p. 57). The dialogue between Merkel and Erdogan has also played a major role in Turkey's postponement of exploration activities (Euronews, 2020). Merkel was Erdogan's most contacted leader in 2020, with the two leaders meeting 15 times by phone and six times by video conference (TRT Haber, 2020). Although it was written in press releases that the talks were on Libya and Syria, it was clear that they mostly discussed the Eastern Mediterranean (Anadolu Agency, 2020; Euronews, 2020; Bloomberg, 2020). President Erdoğan once again told Merkel that they were in favor of solving the region's problems based on equity and dialogue within the framework of international law (Bloomberg, 2020).

Three significant developments took place in Israel during the pandemic: (1) the US company Chevron bought Noble Energy, inheriting 25% and 39.66% of Israel's Tamar and Leviathan fields, respectively, and 35% of Cyprus' Aphrodite fields; (2) Israel signed agreements with United Arab Emirates, Bahrain, Sudan, and Morocco, bringing it new commercial and strategic opportunities; and (3) Israel adopted new renewable energy goals to catch up with the United States and EU (Mitchell, 2021, p. 16). On the other hand, Israel's consideration of a bid by China-linked company Hutchison Water International to construct a desalination plant created some problems with the United States. In 2020, U.S. Secretary of State Mike Pompeo visited Israel to voice his frustration over this (Mitchell, 2021, p. 21-22). At the end of 2020, Israel and Lebanon engaged in U.S.-mediated talks to delimitate their disputed common maritime border but, the fourth round of talks, which was scheduled in December 2020, was postponed (Cohen and Boms, 2021).

4.4.6. Turkey's relations with the EU (2021 April, May, November)

The détente in relations with the EU was also reflected in the de-escalation of Turkey's relations with the region's countries in 2021. In early March, Greek-Turkish exploratory talks were launched in Istanbul ahead of an EU summit. Although this was the 61st round of long-lasting meetings and lasted only a few hours, it was an important step after five years of tension (Çelikpala, 2021, p. 57). Later, the Greek Foreign Minister visited Ankara in April and the Turkish Foreign Minister visited Athens in May. In June, the Greek Prime Minister and Turkish President met when they were in Brussels for the NATO Leaders' Summit (SWD, 2021; 290 final Commission Staff Working Document; TC Cumhurbaşkanlığı, 2021).

Meanwhile, the EU grew more interested in the EMGF. Italy was one of the founding members, France joined the organization in March 2021, the EU officially became an observer in July, and the US joined the observer group (Talbot, 2021). The UAE's desire to join the EMGF in March 2021 was vetoed by one of the founding members, the OPT (Mamedov, 2021), which shares is eager to resolve its maritime border disputes with Egypt and Israel and participate in the development of offshore gas fields. However, lacking statehood, it cannot bring its cases to international bodies. A report in April 2021 said that Israel agreed to allow the OPT to develop the Gaza Marine field with Egypt, which gained additional currency in November 2022, but an agreement on borders has not been reached (Washington Post, 2022). After Egypt's successful deals with Greece and Israel in August 2020, it appeared possible that it might negotiate with the OPT for an agreement (Al Monitor, 2022), but nothing came of these initial talks. However, in October 2022, the Turkish press reported that the two sides were close to a deal, which could improve relations between Egypt and Turkey (Anadolu Agency, 2022).

Turkey also softened its rhetoric and diplomatically reached out to Egypt despite differences on many issues, notably Libya, energy cooperation in the Eastern Mediterranean, and the Muslim Brotherhood (SWD, 2021; 290 final Commission Staff Working Document). Turkey's relations with Egypt have deteriorated since 2013, even to the point of the expulsion of ambassadors (Shama, 2021, p. 70). In May 2021, a high-ranking Turkish delegation with two deputy foreign ministers paid a visit to Cairo following consultations by the two states' special services to improve bilateral relations (Axt, 2022, Turkish Foreign Ministry, 2021). The idea of rapprochement probably came from the Turkish side (Mamedov, 2021). Turkey also softened its tone towards Israel (SWD, 2021; 290 final Commission Staff Working Document). These were vital developments since improved Turkey-Israel and Turkey-Egypt relations could have trigger significant changes in the balance of power in the region (Tziarras 2021, p. 45).

Following this latest warning from the EU, Turkey stopped drilling in the disputed areas after the Selçuklu-1 well and did not drill another well until it drilled the Yörükler-1 well in its territory. However, it continued to obstruct activities by sending a warship into the waters of RoC, as in the vessel Nautical Geo, which was conducting a survey in the RoC's EEZ in September 2021. Furthermore, Turkey issued a NAVTEX for conducting seismic surveys that would encompass parts of RoC's EEZ in October 2021.

Although the EU has expressed its satisfaction on various occasions that Turkey has stopped drilling in unauthorized areas, it has not lifted the sanctions. In November 2021, for instance, it extended the restrictive measures regime for another year until November 2022. The EU still considers the Turkey-Libya agreement as an infringement upon the sovereign rights of a third state, not complying with the Law of the Sea, and having no legal consequences for third States (SWD (2021) 290 final Commission Staff Working Document). The EU often expresses its discomfort with issues such as obstruction of the survey activity by Turkish warships, issuing many NAVTEX for conducting seismic surveys and scientific research activities, and continuing military exercises in the RoC EEZ (SWD (2022) 333 final Commission Staff Working Document).

4.4.7. US withdraws support from EastMed pipeline

Despite Israel's best efforts, the EastMed pipeline project did not go as it desired when the Biden administration informed Israel, Greece, and RoC that it no longer supported the project, reversing the Trump administration's position (Harkov, 2022; Jerusalem Post, 2022). In early January 2022, U.S. State Department Senior Advisor for Energy Security Amos Hochstein explained in a "non-paper" and background briefings their withdrawal, stressing that they no longer supported long-term "non-green" energy projects but still strongly supported the integration of electricity grids like the undersea cables planned between Israel, Cyprus, and Greece, between Egypt and Crete, and between Egypt and Cyprus (Nedos, 2022; Harkov, 2022; Krasna, 2022). In January 2022, the U.S. Embassy in Athens made a similar statement by saying that the United States was shifting its "focus to electricity interconnectors that can support both gas and renewable energy sources" and that they still support the 3+1 mechanism of meetings between Israel, Greece, Cyprus, and the US (Gençtürk, 2022; Harkov, 2022). U.S. congressional representatives Gus Bilirakis (R-Florida) and Nicole Malliotakis (R-New York) wrote to U.S. Secretary of State Antony Blinken and claimed their change of policy was "hypocritical and offensive" (Harkov, 2022).

In February 2022, Biden's Senior Advisor for Energy Security Amos Hochstein visited Israel and Lebanon to resolve the problem of the maritime border and the exclusive rights to exploit gas in the disputed waters between Israel and Lebanon (Krasna 2022; Nedos, 2022). The solution to the border issues was vital for Lebanon to start the exploration activities. Earlier, four rounds of "proximity" talks were held at the UN base in Naqora since October 2020 and moderated by the United States but did not yield agreement. Russia's Novatek has a 20% share in Block 9, Lebanon's gas concession which overlaps the area disputed with Israel (Krasna 2022).

After more than a decade of volatile relations, Israeli President Isaac Herzog visited Ankara in March 2022 and met with Turkish President Recep Tayyip Erdoğan, aiming to launch a process of normalization of ties (Kirişçi and Arbell, 2022). After the visit, a pipeline to Turkey might have seemed possible, but Israel's relations with Greece rendered this unlikely in the near term, as did "the marginality of Eastern Mediterranean gas resources in the greater global and European economy and geography of energy, as well as the long-term trend away from fossil-fuels in Europe, means that the significance and effect of Eastern Mediterranean gas will be limited primarily to those states, and perhaps Turkey and Lebanon in the future" (Krasna, 2022, p. 9). However, gas has begun to be transmitted from Israel to the Egyptian system via the Ashkelon-El Arish Pipeline and the Arab Gas Pipeline running through Jordan since March 2022 (Zielińska, 2022).

Subsequent developments have not changed the U.S. position. In April 2022, a trilateral meeting of the ministers of foreign affairs of Greece, RoC, and Israel was held in Athens mostly to discuss the EastMed pipeline (MFA Greece, 2022). The U.S. Under Secretary for Political Affairs, Victoria Nuland also met in Athens with Israel's Foreign Minister Yair Lapid and top diplomats from Greece and Cyprus. Nuland said after meeting with Cyprus President Nicos Anastasiades in Nicosia that the EastMed pipeline will take too long to build and was "not economically viable" because it's very long, in very deep water and will take some 10 years to build. "And frankly, we don't have 10 years; but in 10 years from now, we want to be far, far more green and far more diverse" in energy sources (Reuters, 2022a; The Times of Israel, 2022; Tugwell and Georgiou, 2022).

In May 2022, an online meeting was held between three ministers and the U.S. minister called the Virtual 3+1 meeting. However, while the joint statement stressed the need to intensify cooperation on energy, it did not specifically mention the EastMed project and simply reaffirmed “their shared commitment to promoting peace, stability, and prosperity in the Eastern Mediterranean.”

The fact that the United States made such a statement in a “non-paper” – an unofficial communication – and without adequately consulting with Cyprus, Greece, and Israel, surprised them (Harkov, 2022; Nedos, 2022; Krasna, 2022). These three countries have traditionally been dependent on the United States and were intensifying their security policy cooperation with it (Axt, 2022). Although a former Trump Administration official said that the United States never supported the project because the Energy Department had conducted an analysis finding that the project was not economically viable, the United States at least seemed to support it in the public eye (Harris, 2022). Not only did former U.S. Secretary of State Mike Pompeo and former Secretary of Energy Dan Brouillette support the project, but Biden showed his support when he was still vice president under Barack Obama (Harkov, 2022; Harris, 2022). He visited Cyprus in May 2014 to demonstrate the increasing U.S. involvement in Cyprus and emphasized Cyprus’s potential to help the EU on the gas front, and even linked gas to a solution to the Cyprus problem (Mallinson, 2020). Biden now desired to make a sharp break with a policy supported by the Trump Administration (Krasna, 2022). In fact, the project had nothing to do with U.S. interests since the feasibility study was financed by the EU, and it is a joint venture between Greek utility DEPA and Italy’s Edison (Krasna, 2022).

It is not entirely clear why the United States withdrew its support from the EastMed pipeline. According to the Jerusalem Post (2022), not securing financing for the project was a main problem. On the other hand, it is also suggested that the opposition of Turkey, which argues that it is impossible for the pipeline to go to Europe without passing through its territory, may also be effective (Harkov, 2022). The reasons for withdrawal were given as (1) EastMed’s lack of commercial viability, (2) the regional tensions that the project creates, (3) the Administration’s commitment to decarbonization and energy transition, (4) the EU’s urgent need to find an alternative to Russian gas in the aftermath of Russia’s war in Ukraine, (5) Turkey’s opposition to the project, and (6) potential investors were deterred by geopolitical risk due to possible vulnerability to terrorist disruption (Krasna 2022; Nedos, 2022; Harris 2022).

4.4.8. EU does not give up

The view of Eastern Mediterranean countries of the EU was not that of the United States, since for many states in the region access to the EU market was of elementary importance (Axt, 2022). On the other hand, the region became more important for the EU, which has had to reduce its dependence on Russian gas due to the energy crisis that emerged after Russia’s war in Ukraine. Although the EU wanted to accelerate the transition to green energy by reducing gas consumption, (Tsafos, 2022) it needed gas for its short-term demand. At the same time, the profitability of gas imports from the region has increased due to the high prices in European gas hubs since autumn 2021 (Zielińska, 2022).

In such a situation, Egypt’s LNG projects came to the forefront (Krasna, 2022). The so-called “triangular gas export strategy”, which involves delivering Israeli and Cypriot gas to Egypt, appeared to be an option for the EastMed pipeline to monetize the region’s gas (Stergiou, 2019). Egypt, which has an annual gas liquefaction capacity of its LNG terminals at Damietta and Idku of 17.5 bcm, exported 9.7 bcm of LNG (69% to Asia and 31% to Europe, including Turkey) in 2021 (Zielińska, 2022; Krasna, 2022). In addition to the agreement signed with Cyprus in 2018 to build a pipeline connecting RoC’s Aphrodite gas field (Mohammed, 2018), Egypt also agreed to develop another pipeline to connect Israel’s Leviathan gas field to Egyptian liquefaction facilities (Krasna, 2022).

The initial talks were carried out between the European Commissioner for Energy Kadri Simson and the Israeli minister Karine Elharrar on in March 2022 (Zielińska, 2022). Later, European leaders, including the EC chief Ursula von der Leyen and Italian Prime Minister Mario Draghi visited Israel and Egypt in June and expressed their commitment to reducing their dependence on Russia (Al Jazeera, 2022; The Economic Times, 2022). In June, Egyptian Minister of Petroleum and Mineral Resources Tarek El

Molla, Israeli Minister of Energy Karine Elharrar, and EU Commissioner for Energy and Climate Kadri Simson signed an MoU in Cairo on cooperation in the field of trade, transport, and export of natural gas between Egypt, Israel, and the EU under the umbrella of the EMGF (Zielińska, 2022; Abu Zaid, 2022). The MoU stipulated the export of 5 bcm of LNG to Europe via the infrastructure connecting Israel's gas field with Egypt's LNG terminals (Badarin and Schumacher, 2022; Zielińska, 2022). It was interesting that DNV, an independent expert group, issued a new assessment report, confirming the technical and economic feasibility of the EastMed project in June 2022 (DNV, 2022). However, this relationship is contrary to the interests of Russia and Iran and their opposition to this plan could jeopardize its implementation (Zielińska, 2022). Moreover, contrary to the Israeli government's policies, many Israelis prefer their gas to be used locally rather than exported (Ashwarya, 2020).

Meanwhile, gas exploration continued in the region in 2022, although at a slower pace. New discoveries were made in Athena in May and Hermes in October by Israel and Cronos in June and Zeus-01 in August by RoC. Energean announced that it made a commercial discovery at its Zeus exploration well off the coast of Israel and upgraded its neighboring Athena discovery in November (Reuters, 2022b). The company is also trying to link Athena to the floating production and storage vessel (FPSO) that it uses to send gas to the Israeli market from its flagship Karish field. Preliminary estimates indicate that the Zeus field holds 13.3 bcm of gas, just above pre-drill estimates (Reuters, 2022b). In addition, Turkey's fourth drillship Abdülhamid Han started drilling the Yörükler-1 well in December. In December, Egypt discovered the Nargis field, which has a natural gas reserve of 3.5 Tcf (Samir, 2022). The Ministry of Petroleum and Mineral Resources of Egypt announced in December that Egypt had recorded oil and gas discoveries in 53 oil and gas wells (42 oil wells and 11 gas wells) drilled in the Western Desert, the Suez Gulf, the Mediterranean Sea, and Nile Delta (Zawya, 2022).

5. Discussions and Conclusions

In this study, we mainly evaluated the Eastern Mediterranean littoral countries' activities carried out in the offshore upstream (exploration, development, and production) and midstream (transportation and export) of natural gas and the delimitation of EEZs in connection with these activities in the region. The major dynamics of these activities and their reflection on the country's economy and politics and inter-country relations and the development of international relations in the region were also evaluated. The activities carried out by the countries on these issues were evaluated as a system under the name of the Eastern Mediterranean Gas Exploitation System (EMGES) and a systemic approach was used to critically assess it. These assessments are based on essential elements, essential processes, and critical moments of EMGES and the major dynamics that affect them.

In terms of initiating and directing events and as the power of influence of the whole, the countries can be grouped into four subsystems (Fig. 4). The RoC and TNRC are undoubtedly at the center of the system. Along with these inner core countries, Turkey and Greece, which have at least as much influence as these, and in some cases even more, are at the outer core as their protectors. Egypt and Israel are rim countries that have a close partnership with the couples of RoC and Greece and TNRC and Turkey. On the other hand, Syria, Lebanon, Palestine, and Libya are the periphery countries. The boundaries of these subsystems are permeable and “perform specific functions within the system and exhibit their own patterns of interaction with the system elements” (Wils et.al., 2006, p. 13).

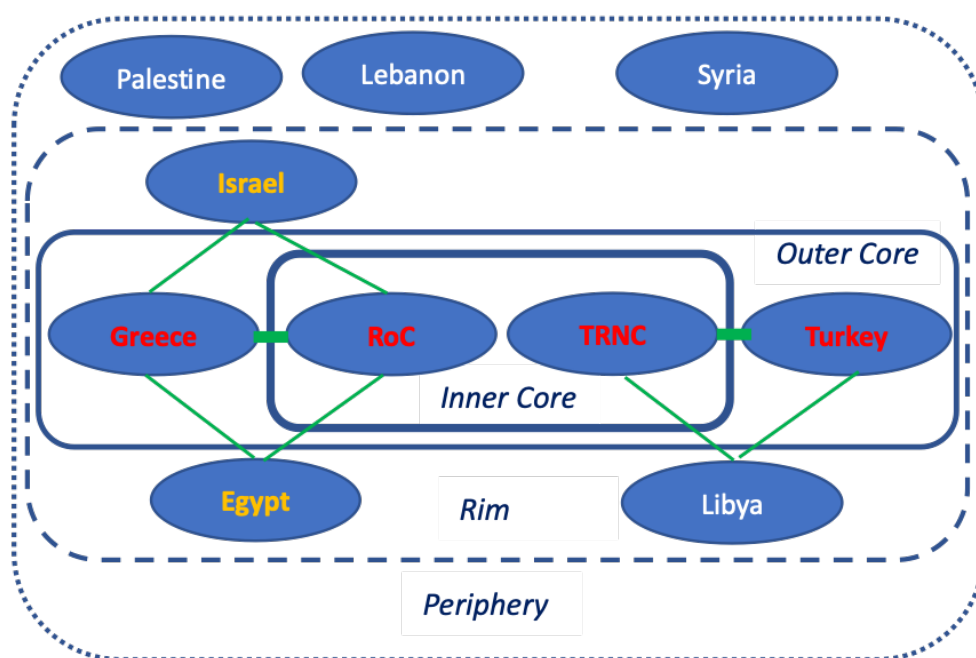


Fig.4. Subsystems of EMGES and levels of partnership in countries' relationships

The Eastern Mediterranean has always been a “sea of troubles” (Magri 2021, p. 8), however, energy, specifically natural gas, recently added a new dimension to the existing geopolitical rivalries that have developed throughout history (Tziarras, 2019; Axt, 2022). Yet the root cause of many of today's conflicts is based on old problems that have remained unsolved for a long time. Therefore, it can be said that the main problem underlying the recent conflicts lies in the opposing geopolitical ambitions of Greece and Turkey and their reflections on the island of Cyprus with a spill-over effect on neighboring regions (Axt, 2022; Badarin and Schumacher, 2022).

The major conflicts occurred at three critical moments in EMGES: 2007, 2011, and 2019-20. The first two were initiated by RoC with significant contributions from Greece and the last one by Turkey. The first two conflicts were rooted in the division of Cyprus into two parts and the question of whether RoC has the right to claim exclusive economic zones whereas the last one was in Turkey's signing an agreement with Libya in late 2019 in response to the EastMed pipeline. It was noteworthy that Turkey did not claim waters that would countermand either Egypt's or Israel's borders with Cyprus through its MoU with Libya. It only demarcated maritime borders that pertained to Greece to block the EastMed pipeline, as it did not want to aggravate Egypt or violate Cairo's maritime border agreement with Athens. Regional powers Egypt, Greece, Israel or Turkey do not want to compromise their other regional and bilateral interests with each other only for more maritime space, which serves to constrain the situation.

These conflicts can be considered as "opposition disputing mutual claims" (Bösch, 2017, p. 1) and occur "when one state resists a threat or demand made by another" (Fearon, 1994, p. 577). Turkey claims that the TNRC is a sovereign state and can carry out exploration activities in its own EEZ and the areas where Turkey carries out exploration activities outside of its EEZ area are within its continental shelf, while Greece and RoC argue that these arguments are against international law (Hughes, 2021, p. 1050).

In addition to exploration activities and EEZ delimitations, tripartite alliances between Greece, RoC, and Egypt and Greece, RoC, and Israel, and later the formation of the EMGF with the participation of non-regional countries increased tension in the region. Although the forum improved collaborations between these four states, these institutionalization efforts were "politically motivated rather than based on facts" and "overlook certain geo-economic realities" (Stergiou, 2019, p. 11). They also excluded Eastern Mediterranean states Turkey, Lebanon, and Syria while including non-Eastern Mediterranean states France, Italy, and even the UAE until its application was blocked by the Occupied Palestinian Territories (Çelikpala, 2021; Badarin and Schumacher, 2022). Although Israeli officials say otherwise and declare that the organization is open to all, it functioned as an "anti-Turkey club" (Çelikpala, 2021; Mitchell, 2021; Axt, 2022).

It could not be expected that Turkey would remain indifferent to the formation of an anti-Turkey regional front because of its role in Cyprus, its ability to utilize its overlapping maritime claims, its vast domestic market, its potential as a transit route for the region's gas exports, and its significant military power to disrupt ongoing developments in the region (Çelikpala, 2021). Turkey's exclusion from the Eastern Mediterranean equation had many consequences. On one side, Turkish foreign policy "radically shifted to a more aggressive position, including sending troops to Syria and Libya and muscle-flexing through gunboat diplomacy in the Mediterranean" (Çelikpala, 2021, p. 54) and on the other side, the efforts of Israel, Egypt, Greece, and RoC to monetize their gas resources remained limited (Rubin and Eiran, 2019).

The alliance's focusing only on the exploitation of gas, excluding other important regional issues, putting unilateral interests ahead of institutionalization of regional cooperation, and positioning Israel, Greece, and Egypt as major players and central actors within the region and an energy hub of the region also played an important role for their failure to achieve a positive outcome (Rubin and Eiran, 2019; Mitchell, 2021; Tziarras, 2021; Shama, 2021). If, instead, countries of the region could come together to form a larger unit, at the center of which will be a structure such as High Energy Authority (HEA), the result could be more successful (Petasis and Kyprianou, 2016).

It is also known that conflicts are intensifying in terms of magnitude and the means used (Pruitt et al., 2003, Mitchell, 2014, Bösch, 2017), significantly impacting the region's upcoming energy projects (Çelikpala, 2021). Since the region's countries have different cultures, exhibiting distinct notions and behaviors, accelerates the escalation of conflicts (Inbar and Sandler, 2001).

Based on Glasl's (1999) model, which examines conflict escalation by dividing it into nine stages at three main levels in the comprehensive model he developed (Reddy, 2016; Jordan, 2000), it is seen that the conflicts in EMGES are in Stage 5 (Loss of Face). Therefore, the current level of the rising conflicts

in the region is in the middle of the second level, which is characterized by a win-lose situation. How long the win-lose situation will continue will depend on further developments in EMGES.

Reddy (2016), who examines the rising conflict between Turkey and Russia in a similar way, mentions that the conflict is about to escalate into Stage 6, which would ultimately lead to an engagement between Russia and NATO. In our case, along with Turkey and Greece, most of the EU countries are NATO members and there is no such danger. Çelikpala (2021, p. 56) claimed that “the possibility of any conflict is seen by many as the beginning of the end of NATO.” Therefore, it does not seem possible for the conflicts in EMGES to escalate to a level where military responses are preferred. However, whether the action-reaction reciprocity will turn into a rational expectations model (Moore, 1995) stands before us as a serious problem.

Fortunately, the effect of global powers on conflicts in EMGES is limited. The Eastern Mediterranean region has always been the subject of global power competition between Europe, Russia, the United States, and over the past decade China (Talbot 2021; Bastian, 2022). However, their effect on the region is limited because they balance each other, preventing them from exerting a dominant influence, and none of them dare to engage in conflict with other global powers there (Litsas, 2015; Axt, 2022).

This also applies to the exploitation of natural gas in the region, which has significance only for the EU because it is the most suitable international market for Eastern Mediterranean gas (Stratakis and Pelagidis 2020; Badarin and Schumacher, 2022). The region became more important for the EU especially after the Russia-Ukraine war to diversify its gas sources (Marketos, 2021, p. 49). Also, because the two countries in the region are members of the EU, dynamics in the region directly or indirectly affect the interests of both the EU and its member states such as Germany, France, and Italy (Tziarras, 2019; Talbot, 2021).

The Mediterranean also attracts the attention of the United States and NATO because half of the eight important seaborne bottlenecks of hydrocarbon tanker transportation are in the Mediterranean (Marketos, 2021, p. 47). In addition, the United States always promotes the exclusion of Russia and China from the region (Mallinson, 2020). While Russian policy towards the region has mostly been based on large-scale flexibility, combining elements of soft and hard power (Gasimov, 2022), it has increased its Mediterranean navy in size within the framework of its long-term naval and air-force base goals (Mallinson, 2020).

China, which does not have a primary strategy to become a major player in the region, also has limited influence and interest in EMGES (Lons, 2021). Despite this, China strives to increase its military power in the region and conducted bilateral naval drills with Egypt and Russia in 2015, live-fire drills in 2017, and anti-piracy exercises with Egypt in 2019 (Lons, 2021, p. 121). At the same time, China is strengthening its relations with the countries of the region through various organizations. Turkey and Egypt signed Belt and Road Initiative (BRI) MoUs with China in 2015 and 2016, respectively, Egypt and Libya are parts of the Forum on China-Africa Cooperation (FOCAC), Egypt, Libya, Lebanon, Palestine, and Syria are grouped into the China-Arab States Cooperation Forum (CASCF), and Greece and Albania are in the 17+1 China and Central and Eastern European countries cooperation group (Lons, 2021, p. 114).

The hydrocarbon exploration history of the Eastern Mediterranean region is like that of the North Sea. The Eastern Mediterranean region lies between eight countries, while the North Sea between seven countries: Great Britain, Norway, Denmark, Germany, the Netherlands, Belgium, and France. The oil and gas exploration in both regions continued in a similar way over a 50-year period. In the North Sea, exploration started with the EEZ agreement signed between Britain and Norway in 1964 and continued with discoveries of the first gas (West Sole in 1965) and oil (Elofisk in 1969), and with production after 1967 (Kent, 1967; Ross, 1986; Larminie et al., 1987; Barrera-Rey, 1997; Staerck, 2002; Bjørlykke, 2019).

Also, an analogy can be established between the UK and Israel and Norway and RoC. The oil industry developed well in Israel like the UK, whereas RoC must rely on expertise from major

international oil companies like Norway (Bjørlykke, 2019). In addition, Israel became self-sufficient and an exporter of natural gas, like the UK became a net oil exporter nearly half a century ago (Ross, 1986).

The development of the hydrocarbon resources of the North Sea was largely affected by oil prices (Ross, 1986). This is true on a global scale: exploration activities usually increase as oil prices increase (Menard, 1981; Allison and Mandler, 2018). In the early 1970s, the reason for increasing petroleum activities was a result of a “mad rush” for self-sufficiency and the general expectation in the oil industry was that oil prices would rise, and thus the offshore drilling process, which was quite expensive, would become feasible (Staerck, 2002). This was also true of the Mediterranean Sea (Fig. 5). The discoveries of all four big reserves, including the Tamar, Leviathan, Aphrodite, and Zohr gas fields were made possible during the third and fourth oil crisis periods.

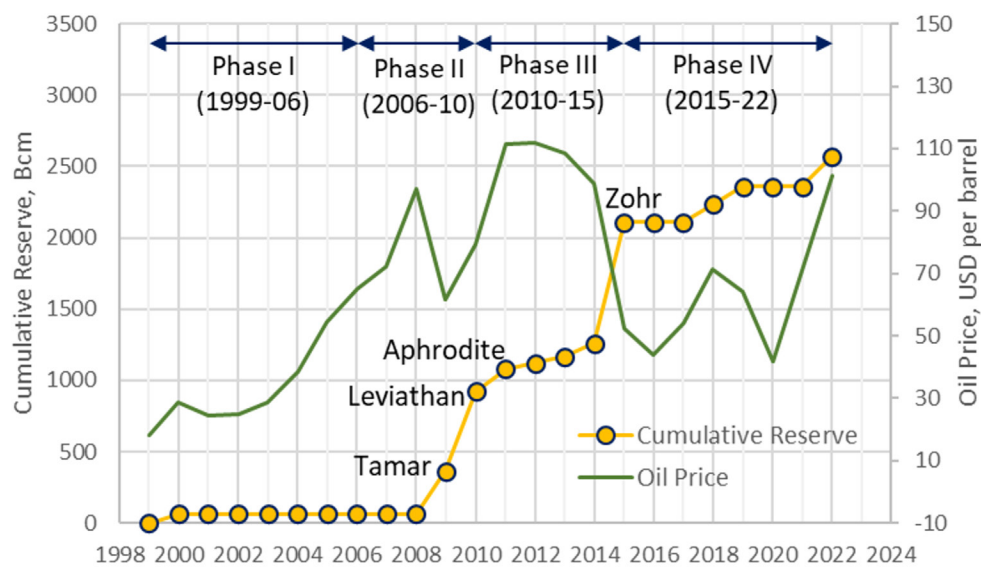


Fig. 5. Natural gas discoveries from 1999 to 2022 and oil prices in the EMGES.

In conclusion, it is now clear that the strategies and policies carried out in the region for more than two decades have done nothing but fuel mutual conflicts, destroy the stability and peace of the region, and worse, fail to ensure the commercialization of the gas extracted in the region, which is the main purpose. Even worse than all this, the current situation in the region is damaging investment levels among the region's countries, which are aiming to make significant upgrades to their military capacities. It should be noted that it is the last exit before the conflicts escalate to the next level.

As several authors have noted, EMGES, which has come to a crossroads, has two options in front of it: it will be a region where confrontation and conflict are intense or a region where peace, stability, and cooperation interdependence prevail (e.g., Tsardanidis, 2019; Çelikpala, 2021; Mitchell, 2021; Marketos, 2021; Petasis and Kyprianou, 2016; Hughes, 2021; Badarin and Schumacher, 2022).

There are two shortcomings that prevent the second path from taking place: a common vision and a mechanism. First, the fact that the future of the countries is directly interconnected and that countries depend on each other in some way must always be considered. This common vision should also include the right balance between the economic and strategic interests of each country and the region, between governments and civil society engagement, and between development and sustainability. Secondly, to jointly develop the natural resources in the region, a robust cooperative framework structure that does not exclude any country in the region should be established and external powers, especially the EU and the United States, should be included in this structure in some way to create a unified whole of countries in the region that would work together harmoniously.

Although countries have begun to realign their foreign and security policies to recover relations since 2021 (Badarin and Schumacher, 2022), it is obvious that improving the conditions of the EMGES is not going to be easy (Petasis and Kyprianou, 2016). Developing a regional strategy that copes with the departure of the United States and the emergent presence of Russia and China is a major challenge (Mitchell, 2021, p. 28). However, if this cannot be achieved, the region will be players of “political footballs in a frenetic match between outside players” (Mallinson, 2020, p. 338).

A reunified Cyprus seems to be the first requirement. Yorucu and Mehmet (2018, p. 134) stated that “a United Federal Cyprus, based on power-sharing between the island’s two main ethnic groups, Turkish and Greek Cypriots, would be able to sell hydrocarbons into the energy-hungry Turkish market while also linking deliveries to the far more cost-efficient Turkish pipelines delivering gas to Western Europe. Evidently, United Federal Cyprus, or an agreed solution, would be able to monetize its recently discovered natural gas reserves in its territorial waters, whereas the unresolved Cyprus Problem would create a dispute over Cypriot hydrocarbons, delaying or even totally preventing their full exploitation and monetization.” However, it is not a priority for the United States and Russia, which rejected at the UN Security Council the last-minute Western attempts to make the infamous Annan Plan acceptable and want a demilitarized Cyprus to be the price of re-unification (Mallinson, 2020, p. 339).

The EU can play a major role in achieving this goal. Although it is far from optimal at present, the realization of all these developments requires to a large extent closer cooperation between the EU and Turkey (Yorucu and Mehmet, 2018, p. 135). The fact that the monetization of these resources is highly dependent on the EU market provides the EU with an immense amount of “buyer power” to stabilize the region and potentially balance the fears of both Greece and Turkey (Badarin and Schumacher, 2022).

Therefore, there is a great benefit for the future of the region in carrying out the next studies in this direction. Scholars should focus more on analyses of conflicts, including the interests and strategies of the regional and global actors in the greater context of the changing world order (Axt, 2022). What future alliances and partnerships in the region might look like after Russia’s invasion of Ukraine and how this new situation will help to stop conflict escalation must be reassessed thoroughly (Badarin and Schumacher, 2022; Axt, 2022;).

Finally, the intrastate, interstate, and international activities carried out by Eastern Mediterranean countries on natural gas constitute a typical system, and the system approach is an appropriate method for a holistic evaluation. The elements (states) that make up the system are interconnected and interact with each other, and these mutual interactions change not only the countries involved but also the whole system. The events chart, which was applied successfully in the petroleum system concept is highly applicable for the assessment of EMGES. It includes the essential elements (countries), essential processes (activities related to gas exploitation and exclusive economic zone delimitation), and critical moments (major conflict periods).

Acknowledgements

The authors would like to thank Prof. Dr. Sondan Durukanoglu Feyiz, Rector of Kadir Has University, for her continued support of CESD. Our thanks are also due to Miss Elif Güney Menderes, Project Coordinator of the Friedrich Naumann Foundation Türkiye, for her efforts in support of the foundation printing the report. Prof. Dr. Mustafa Aydın and Prof. Dr. Mithat Çelikpala of the Kadir Has University Department of International Relations never hesitated to share their valuable suggestions and comments. Assoc. Prof. Dr. Vedat Ediger also prepared Figures 1 and 2 with great devotion. Finally, Mr. Batıkan Erkoç, Communications Officer of Friedrich Naumann Foundation Türkiye, took great care to create a beautiful layout of the report.

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About the authors



Volkan Ş. Ediger

Upon gaining his BS and MS degrees from the Middle East Technical University (METU) in Ankara, Turkey, Volkan Ş. Ediger went on to receive his Ph.D. from the Pennsylvania State University (PSU) in State College, Pennsylvania. Prof. Ediger's professional career has been shaped by research, teaching, and consultancy simultaneously carried out at the Research Center of the Turkish Petroleum Corporation, METU, PSU, and the Office of the President of the Republic of Turkey. Between 1998 and 2010, he was the first person to hold the position of Energy Advisor to the President, where he had the chance to work with three successive presidents. In 2010, Prof. Ediger received his professorship at the İzmir University of Economics, where he served as the Founding Director of the Office of Research and Graduate Policies and Sustainable Energy MA Program. He is currently the Founding Director of the Center for Energy and Sustainable Development (CESD) and the Energy and Sustainable Development MSc Program at Kadir Has University in Istanbul.



Rahma Elfeky

Rahma Elfeky completed her Bachelor of Science in the Department of International Relations at Beykent University in Istanbul in 2021 and is currently completing her Master of Science in Energy and Sustainable Development at Kadir Has University in Istanbul. Rahma has contributed to several research projects covering various topics and has authored articles and reports on the Middle East. She also has three years of experience interning and working at think tanks and research centers including the CESD, SETA, Al-Masar Studies, and Al-Sharq Forum.



Dimitrios Karampalis

Dimitris Karampalis is currently pursuing a Bachelor of Science in the Faculty of Turkish and Modern Asian Studies at the National and Kapodistrian University of Athens in Greece. He worked as a researcher at the Student Association for International Affairs (SAFIA) between 2020 and 2021 and as an intern at CESD during the Academic Year of 2022-2023.



Hazal Mengi

Hazal Mengi completed her Bachelor of Science in the Department of International Relations at Kültür University in Istanbul in 2015 and her Master of Science in Energy and Sustainable Development at Kadir Has University in Istanbul in 2017. Mengi has contributed to several research projects carried out at CESD and authored the article "Evaluating the International Renewable Energy Agency with Social Constructivism." She is currently a Ph.D. candidate in the Department of the European Union at Istanbul University. Mengi worked as an assistant at CESD between 2018 and 2023 and is currently working as a project management specialist at Kadir Has University's Research and Development Department.



S. Erkan Tan

S. Erkan Tan completed his Bachelor of Science in the Department of International Relations at Yaşar University in Izmir in 2020 and his Master of Science in Energy and Sustainable Development at Kadir Has University in Istanbul in 2023 with a thesis entitled "Examining the Decarbonization Targets of the European Green Deal in the Energy Sector." He also participated in a project entitled "Development of Circular Economy and Industrial Symbiosis for the Purpose of Transferring Adana Organized Industrial Region to Eco-Industrial Park Within the Framework of European Green Deal," carried out at CESD.



John V. Bowlus

John V. Bowlus is a researcher and lecturer at the Center for Energy and Sustainable Development (CESD) at Kadir Has University in Istanbul. He received his Ph.D. in history from Georgetown University, where he wrote his dissertation on the politics and economics of oil transportation in the Middle East. His research interests include energy geopolitics, energy transportation, energy transitions, U.S. foreign policy, Turkey, and the Middle East, and he has published academic articles in Diplomatic History, The Historical Journal, Energy Strategy Reviews, Middle Eastern Studies, and Energy Research & Social Science. His commentary on contemporary matters relating to energy geopolitics has appeared on many platforms including War on the Rocks.

