

Energy Security in Eastern Mediterranean Region: Challenges in the 21st Century

Strategic Monograph

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Abbreviations

EEZ	Exclusive Economic Zones
EMGF	Eastern Mediterranean Gas Forum
EU	European Union
FSR	Floating Storage and Regasification
GNA	Government National Accord
IEA	International Energy Agency
INGL	Israel Natural Gas Lines
LNG	Liquefied Natural Gas
UNCLOS	United Nations Convention on Law of Sea

1. Abstract

For any economy to grow, prosper and sustain, energy is significant. Energy security has three facets though different in their approaches yet vital to overall grading it quantitatively and qualitatively, these facets focus on the acceptability of resources, sustainability of supply and the affordability of the resources. Energy goods will undoubtedly continue to play a role in sustaining and enhancing our way of life. By controlling energy resources, the country can also consolidate its own security and strengthen the potential for self-sufficiency, helping them lessen the country's vulnerability and dependence on other countries' energy resources.

The Mediterranean Sea is located at the crossroads of Europe, Asia, and Africa; it encompasses major international sea routes and straits such as the Straits of Gibraltar, the Bosphorus, the Dardanelles, and the Suez Canal; and it has oil and natural gas reserves. This paper's approach will be towards energy not as a country's capacity to mobilise its resources but as a critical factor in shifting the balance of power in the international system to generate challenges and possibilities for the survival of the region, and this means that with the old trends of competition that still continue to keep causing frictions between states and the new trends that are emerging and causing further fissures, the Eastern Mediterranean states will require to explore new possibilities for resolution. In this backdrop, recently discovered regions of energy resources, maritime agreements, conflict zones and peaceful resolution agreements towards extracting the resources become important and thus have been studied in this paper.

Keywords: Energy Security, Energy Dependence, Hydrocarbon, Liquefied Natural Gas, Exclusive Economic Zone, Maritime Disputes, Geopolitics of Energy.

2. Introduction

The Eastern Mediterranean region's energy issues have geostrategic consequences. There is a constant inter-state rivalry and competition between the nations at the periphery and on sea to ensure their national interests are kept upfront and achieved continuously and towards this end, each state wants to achieve superiority in gaining control over offshore zones of energy resources and use this as an apparatus for economic gains, forming strategic alliances and be relevant in the region. The competition thus gets manifested on various fronts and domains viz economic, political, geostrategic, control of territories and sea lanes, exploration of new energy fields and extraction of energy resources from the existing ones. Energy exploration and production were initiated in various fields, but these methods have been slowed as the countries' governments and the oil companies are currently unable to agree on the requirements and boundaries due to conflicts. With the latest developments in the region, the execution of energy extraction is going forward rapidly because of what has been accepted by national governments, however, turmoil also prevails due to the absence of clearly demarcated maritime borders and conflict of interests.

Energy flows will directly impact the balance of power in the region. The changes caused by the region's energy flows have created confusion and propagated security dilemmas in Eastern Mediterranean region. The stability and the shifts in the balance of power in this region will be contingent upon the factors including tapping of the energy resources optimally, transporting to energy hungry EU and other countries for economic gains and sustaining it through

coalitions and diplomacy, for which, infrastructure development in form of pipelines and alliances are the key factors.

Since 2009, the East Mediterranean countries have discovered energy resources like hydrocarbons on a large scale, offshore of Israel, Cyprus and Egypt. The discovery of energy resources is an opportunity for the energy producer countries to reduce regional dependence on energy and increase their economic growth. The finding of energy resources has paved way for the agonistic behaviour among regional and non-regional players including private companies to expand their authority in the region. The trade of the region's current and prospective supplies of energy in the future threatens both the economic security of neighbouring states and that of major players worldwide who are involved in the region's energy research and have stake in extraction companies. It thus becomes important for the countries to diversify their supply of energy to boost up their economy. The discovery thus has led to tensions between Israel, Turkey, Greece, Cyprus and Egypt.¹

For the growing energy needs of the European Union, hydrocarbon energy resources in the region could be beneficial and easy to export to the region given the proximity to Eastern Mediterranean region. Greece and Cyprus are EU member states, and any future EU-Eastern Mediterranean trade in energy resources will increase their power and authority through negotiations among EU decision making bodies. Simultaneously, other Eastern Mediterranean countries have a long history of bilateral or multilateral relation with the EU member states. The Eastern Mediterranean has been an effective pathway for EU oil and natural gas imports, with around 35% of EU natural gas and 50% of EU oil consumption trafficked within the region (Szoke, 2016).

Energy Resources have been hailed as a “game changer” by the analysts as it will impact upon the relationship between the energy producing countries, Egypt, Cyprus, Greece, and Israel and the energy buyers like the EU and Turkey which makes it essential for the energy producing countries to secure the resources and maintain energy security. Towards this end, the countries need resolute regional governance. This can only be prevailed by forgetting the turmoil and conflicts between the states. Energy cooperation and coexistence can help improve the relations among the countries.

3. Energy Security Puzzle

According to International Energy Agency's definition, energy security is the uninterrupted availability of energy sources at affordable prices.² Energy is the livelihood of civilization, both individuals and nation states depend heavily on energy. Energy security may seem like an abstract concern, but certainly it is important, yet vague, and a little hard to pin down (*Yergin, 2011, pp.267*). The increasing energy demand for any country is partly because of a developing economy, fast population growth and the fact that significant quantity of resources consumed once are not renewable. The energy consumption statistics and energy applications indicate that this consumption trend will continue for some time as much of the supply used in current times is still non-renewable. To secure the energy, the countries need to start using renewable energy resources which are sustainable and will also help lessen the impacts of climatic changes.

¹ Mamedov, R. (2020), “*The Energy Sector, Competition and Security in the Eastern Mediterranean*”, Russian International Affairs Council, Available at: <https://russiancouncil.ru/en/analytics-and-comments/analytics/the-energy-sector-competition-and-security-in-the-eastern-mediterranean/>

² International Energy Agency Homepage: <http://www.iea.org/topics/energysecurity/>

Energy security does not only address the wide range of availability, acceptability and affordability of energy resources but it also concerns the relations between countries, how they communicate with each other and how energy affects their broader national security concerns. Countries seek to ensure that their energy resources are constantly available by increasing their economy capacity, deploying military power to safeguard the resources, building energy reserves, being on constant search of renewable resources and tilting regional and global diplomacy in their favour. Affordable and sustainable access to energy resources has been one of the key challenges for all the countries around the world. In today's time for the countries, energy security has become vital in terms of the control of transportation routes and to protect critical infrastructure and key energy assets, this is more so important for those countries which depend on import of energy resources (*Ebel and Menon, 2000*). Thus, given its close connectedness with power politics, energy reserves' competition is a vital part of energy relations as geopolitical rivalries, and historical animosities have widened.

In general, the Energy Charter of 1991 (International Energy Agency) has been believed to open more competitive markets based on openness and non-discrimination principles. The question of who gets to explore and grow energy resources, as well as the pace at which they are to be depleted, is addressed by each state and it is the state's responsibility to shape energy security policies³, whether it is supply or demand. Energy and politics are part and parcel of one another and must not be split. It is an inextricable component of policies; it is often intertwined with developments, which is why states make it a part of their foreign and national security strategies (*Yergin, 2006*).

Energy resources are not mere objects that the policy makers make use of to sustain or change existing conflictual dynamics in the region, rather are supplements to regionalization,⁴ but it can also lead to inter-state conflicts over resources. Energy can be governed by state-led, market-led or hybrid practices depending on country (*Judge & Maltby, 2017*).

Natural Gas in Eastern Mediterranean region has become a governance object, on which policies are framed by peripheral countries. Energy resources are and will influence how the governance evolves⁵; it has become important for countries to build strategies and policies for transportation of natural gas as this energy resource is more volatile than oil. Investors, energy firms, global energy markets and national regulators have all eyed and focused on this regions resources. Regional gas governance systems with their traditional trade and pricing patterns have, therefore, begun to slowly crack, giving way to more globalized forms of gas trade.⁶

4. Significance and the Geopolitics of Eastern Mediterranean Region

The countries of the Eastern Mediterranean have mostly been carrying passengers and are dependent on consumers, located between energy-rich Gulf countries and energy-hungry Europeans. It is estimated that the Eastern Mediterranean region, extending from Cyprus to Lebanon and from Israel to Egypt, hosts probably more than 340 trillion cubic feet (tcf) of natural gas (*Lo 2017; Lavinder 2018*). Cyprus and Israel are the first two countries to see significant energy projects which they signed to start the flow of energy **into net exporting**

³ International Energy Agency Chart: <http://www.energycharter.org/what-we-do/investment/overview/>

⁴ Goldthau, A.C.; Richert, J & Stetter, S, (2020), "*Leviathan Awakens: Gas Finds, Energy Governance, and the Emergence of the Eastern Mediterranean as a Geopolitical Region*", Review of Policy Research.

⁵ Balmaceda. M. M., (2018), "*Differentiation, materiality and power: Towards a political economy of fossil fuels*", Energy Research & Social Science, 39, pp. 130-140

⁶ Hulbert, M. & Goldthau, A. (2013), "*Natural Gas going Global? Potential and Pitfalls*", Handbook of Global Energy Policy, London, pp. 98-112

countries. This interaction or the new mode of governance has steered into an energy region. A variety of new export opportunities have increasingly emerged alongside new partnership scenarios, allowing further collaboration on the international gas market development. This figure raises the Eastern Mediterranean's geostrategic significance and enhances competition between states to reach hydrocarbons reserves. Supply interruption for example have very often been used as 'energy weapon' by the producing state or by transit states that control pipeline or transportation corridors as to force the consumer state or group of consumer states, to change their behaviour in a way that the antagonist desires. Russia has been accused several times in recent years of interrupting supply to the Mediterranean region (*Johnston, 2011*). Turkey's role has been important, not only because it is one of the region's littoral states but also a large energy importer.

Few scholars contend that the existence of a high level of securitization within nations is a precondition for stable political relations between nation-states and most agree that lower levels of securitization are more prevalent in the East Mediterranean region. As there are many questions to answer concerning energy security throughout the Eastern Mediterranean region, the task thus is complex.

Many experts initially thought that after investing a lot of money, Israel's decision to expand had no chance of panning out, given its lower expected oil production potential. However, it proved to be the exact opposite due to Israel's extended investment time frame and the new discovery of energy fields. The discovery of new reserves in the Eastern Mediterranean thus has changed the erstwhile status quo and its impact has been analysed in-toto that has led to the idea that the region might be able to produce and export natural gas.

As long as someone has been paying attention, the region has been known for its shifting balance of power. The Egyptian, Israeli, and Cyprus discoveries of energy in the past few years were successful and are notable due to their proximity. Exhibiting this degree of relevance has little to do with their size, in this case, but more because of their relationship to geopolitical interests and ambitions. This alliance shifted the balance of power, ultimately leading to the beginning of countless generations of disagreements over the fear of loss of energy security, thereby inflaming age-old conflicts.

The interest shown by the US Company Noble Energy and the French company Total E&P in the area became apparent since 2010. The offshore of Israel and Cyprus and their exclusive economic zones, or maritime zones, the corporations discovered a total of 3.4 tcf of recoverable gas and 1.7 billion barrels of recoverable oil reserves. Given the latest estimates of Zohr's capacity after the discovery of the giant gas field in the Egyptian offshore in 2015 (Nile Delta Basin) and the assumed 2-4 tcf feet of untapped natural gas and 1.5 billion of oil in the Aegean Sea specifically in Greek waters south of Crete, the total natural gas reserves in the Eastern Mediterranean could overcome 10 tcf (*Indeo, 2016*).

The pipelines from Egypt to Israel and the Arab Gas Pipeline is playing a crucial role in the region's largest energy sector so far. These pipelines led to economic and political cooperation between the nation states. While developing its LNG infrastructure, Egypt had achieved a level of gas exporter status in the region.

There was a positive sign when the Eastern Mediterranean's natural gas fields like **Tamar**, **Leviathan**, **Zohr** and **Aphrodite** were discovered, and it had a transformative effect on the region. It showed a sign of peace and harmony in the region, but it has been unsuccessful in keeping away the tensions between the states over the period of time. While referring to

security and particularly the eastern Mediterranean regionalisation, it is essential to keep in mind a few narratives, which have become political discourses in international relation studies. These narratives are as follows: exclusive economic zones, LNG ports, deep-sea water pipelines and UNCLOS. In other words, energy has the ability to change not just the scope of a region, but also the activities and policies that regulate it.

5. Conflict or Cooperation

From a historical point of view, the ability to move energy across borders has been a source of savings and security and a basis for foreign commercial and diplomatic relations.⁷ The task of constructing a pipeline is not easily accomplished because of this region's turbulent terrain. A series of talks have been held in Eastern Mediterranean countries about building an '**EastMed**' pipeline. The plans to build a pipeline to Europe have not been implemented yet; however, on 2 January 2020, Greece, Cyprus and Israel signed a treaty to construct the 1,900-kilometre EastMed gas pipeline.⁸

The efficacy of a pipeline, on the other hand, is based on a number of uncontrollable and volatile variables. It is primed to create harmonious relations between the countries from which the pipeline passes by. Pipelines thus may become as “Peace Pipelines” between the countries which have animosity amongst each other. The talks and the implementation of plans will decide the fate of EastMed Pipeline and ensure if the pipeline can further transit to the EU and if at all the venture be proceeded or not. The cooperation arrangements between Cyprus, Greece and Israel are on the anvil, EU is likely to join the arrangement being the biggest beneficiary, and however, the fissures of disagreements amongst the stake holders are required to be ironed out.

Creating a new Eastern Mediterranean natural gas hub appears to be the best long-term strategy for the region, and a willy-nilly choice for all stakeholders, particularly for Israel and Cyprus. They can extract considerable gas reserves while serving as a transit hub for energy exports. Finally, Europe, where gas demand is expected to increase because of the decrease in domestic supply in Europe and the expiration of long-term contracts with Russia and Norway, is viewed as a possible opportunity for the Eastern Mediterranean region.

This partnership might rise when new gas supplies are discovered and when demand is increased in the surrounding markets, with the establishment of the Israel-Cyprus-Greece gas pipeline. Hoping to take advantage of new energy capital, Egypt, Cyprus and Israel looked for a buyers' market close to Greece, Jordan and the Palestinian Authority (PA). Together these countries founded the **Eastern Mediterranean Gas Forum (EMGF)** in collaboration with French and Italian energy companies in early 2019, to coordinate gas trade, set prices, align energy policies, merge infrastructures and thereby secure energy supply.⁹ The forum has got Egypt, Cyprus, Israel and Greece as also Jordan and PA which are under one umbrella towards the vision of energy security and cooperation in the region. However, Turkey is not a part of it. The EU-funded EastMed pipeline was signed by

⁷ Verrastro, F. and Ladislaw, S. (2007) 'Providing energy security in an interdependent world', *The Washington Quarterly*, Vol. 30, pp.95–104.

⁸ Mamedov, R. (2020), “*The Energy Sector Competition and Security in the Eastern Mediterranean*, Modern Diplomacy, Available at: <https://modern diplomacy.eu/2020/12/20/the-energy-sector-competition-and-security-in-the-eastern-mediterranean/> (Accessed: 15th March 2021)

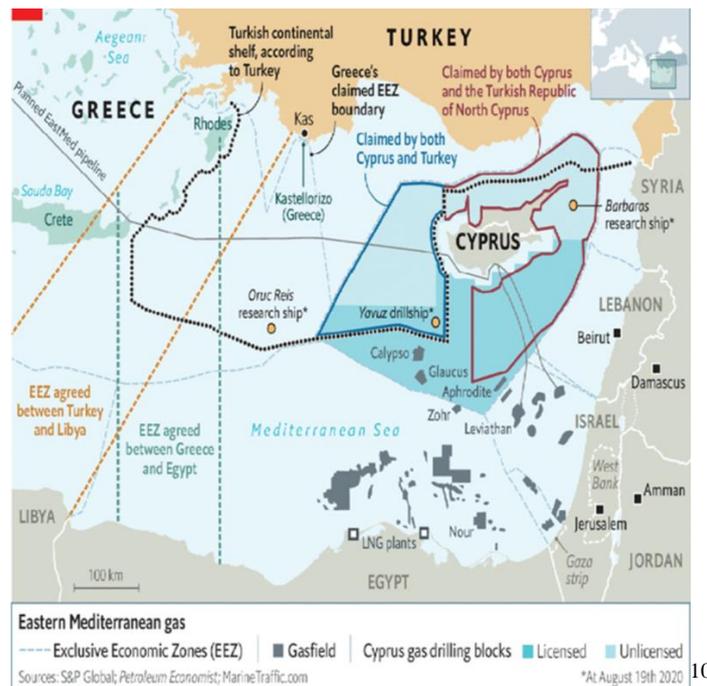
⁹ Wolfrum, S. (2020), “*Pipelines to Swords: How COVID-19 Shifted Focus from Energy Cooperation to Securitization in the Eastern Mediterranean*”, Observer Research Foundation, Available at: <https://www.orfonline.org/expert-speak/pipelines-swords-how-covid19-shifted-focus-energy-cooperation-securitisation-eastern-mediterranean/> (Accessed: 15th March 2021)

Greece, Cyprus and Israel, aiming to connect the EU to the grid. However, development has stopped and affected countries' economies as a result of COVID-19. The region has been tumbling in energy demand, and this spread regionally and globally as rapidly as the virus.

Since the crisis between Israeli-Turkey relations which lasted for eight years from 2008 to the fall of 2016, Tel Aviv had strengthened its ties with Athens and Nicosia to greater significant developments and cooperation in the political, military, and energy sector. This initiative was widely anticipated to yield substantial economic benefits due to the recent natural gas and oil findings in the Exclusive Economic Zone of Israel and Cyprus. Energy cooperation is a matter of national debate for energy experts. Israel does not know if it will be able to export gas in a lucrative manner or, in any way, to whom. All previous discussions about the need for gas pipeline infrastructure between Greece and Cyprus have failed to yield results.

95% of Turkey's oil and gas demands are supplied by other countries. Turkey's key geopolitical transit position is to take advantage of its strategic location and not only to make the country energy secured, optimally meet its rising energy needs and reduce the burden of its energy bill. Even though Turkey has a vital role to play in hydrocarbon transit, it is nevertheless vulnerable because of the limited available transport and storage facilities. The progress of the economic growth and gas demand in Europe over the next decade are especially important to Turkey's energy security. Turkey's efforts include creating a shipping route that links the Middle East and the Caucasus to Europe. Most recently, a growing number of attacks on Turkey's pipeline networks in the east highlight the continuing political threats to potential gas exports to Europe. Turkey is anxious and feels threatened about the emerging EMGF players.

Energy is going to be crucial for future economic development in the Eastern Mediterranean region. There has been a notable shift in global oil markets, which has caused many policymakers and private investors to rethink the feasibility of cost-intensive energy projects. Due to which Eastern Mediterranean countries' approaches are now focused on security partnerships to combat competitions and threats.



Under the new leadership in November 2019, Turkey and the Libyan government signed an agreement on the Government of National Accord (GNA), which reached an extensive maritime zone control from Turkey's Mediterranean coast to Libya's northeast coast. The move seemed to be a retaliation for Cyprus', Egypt's, Greece's, and Israel's attempts to grow Mediterranean gas deposits. Greece has stated that the Turkey-Libyan agreement by GNA is illegitimate and destabilizes the Eastern Mediterranean region. In August 2020, the sea borders of Egypt and Greece were demarcated and established in a maritime agreement. This agreement is considered as false by the Turkish government and it blocs all the developments and activities in the Libyan EEZs.

6. Role of Greece and its Quest of Energy

Greece, Cyprus and Israel signed the EastMed gas pipeline project,¹¹ which begins from offshore fields of the East Mediterranean Sea to mainland Europe. This energy project that passes through Greece reaching Thesprotia will help lessen the European Union's dependence on Russia. Turkey is contentious and against this project, as earlier Turkey was the key transporting country for Russia's energy resources to European countries. Maritime claims and oil ambitions have led to a confrontation between Greece and Turkey for the rights to control of the waters of Cyprus.

Turkey sent the Orc Reis research ship, escorted by warships, to explore hydrocarbons in the waters between Crete and Cyprus, which Greece claims as its own. In response, Greece sent its warships in the area and both the countries vessels bumped into each other. Since they are both members of NATO, they are obligated to restore stability and resolve disputes on their own.

¹⁰ The Economist, 2020, "A row between Turkey and Greece over gas is raising tensions in the Eastern Mediterranean" <https://www.economist.com/international/2020/08/20/a-row-between-turkey-and-greece-over-gas-is-raising-tension-in-the-eastern-mediterranean>

¹¹ Maxar (2020), "Energy Exploration and escalating disputes in the Eastern Mediterranean", Vol 25, Available: https://explore.maxar.com/rs/748-UOX-850/images/Vol_25_Oct_2020_Energy_exploration_and_escalating_disputes_in_the_Easter...%5B20%5D.pdf (Accessed:17th March 2021)

Later, the officials from Turkey government motioned that the resources should be shared amongst the littoral countries. The presence of the other members of the EU, in particular, France, and new players joining like Egypt and Libya has heightened the conflict, making the region a highly volatile place with problems.

The discovery, exploration, and extraction of natural resources in the Eastern Mediterranean Sea have raised the question of maritime boundary delimitation. According to the UNCLOS, "a country's territorial waters stretch up to 12 nautical miles (22.2 kilometres) from the coast, and its Exclusive Economic Zone (EEZ) extends up to 200 nautical miles (370 kilometres) from the shore. Everything contained in or under the water within this specified zone is solely the country's property. There is no doubt that the geopolitics in the region has been heating up.



TURKISH NAVAL ESCORT FOR ORUC REIS (EPA-EFE/TURKISH DEFENSE MIN.) 12

According to information from Dimokratia,¹³ one of the goals of Greek diplomacy for 2021 is the continuation and expansion of cooperation with countries that share the same views with Greece on the problems that exist not only in the eastern Mediterranean, but in the region in general, and for their resolution based on International Law.¹⁴

In recent months, the government of Greece has attempted to position itself as an energy transit state in the European Union due to the successes it has had in the north of Israel's offshore Zones Karish and Tanin, where Greek companies such as Energean Oil and Gas are stationed.

7. Cyprus Problem and its Implications on Energy Security

Cyprus is at the strategic location in the Eastern Mediterranean region which leads to many maritime conflicts with the littoral states. Though the Cyprus problem is not new rather it dates back to 1974 when Turkey invaded and captured the northern region. This resulted in the division of the country, the north owned by Turkey and the South by the Greek Cypriots. Cyprus status as an island is yet to be settled, and it is only entitled to a 12-nautical mile Exclusive Economic Zone. Both Turkey and Greece has the right to explore in each other Cypriot waters. The region is thus facing instability; both Turkey and Greece have managed to improve their stature and to boost their positions, they have influenced Libya (and Turkey) and Egypt (and Greece) to sign agreements. *It is extremely significant for Cyprus and Greece to sign an EEZ agreement.*

For many years, Greece and Cyprus have been in talks over gas, but no significant progress has been made. Although Cyprus and Israel compete to sell gas to other nations, the three countries

¹² Ibid – 6

¹³ Dimokratia is a newspaper that has appeared in Greece since the beginning of the state's debt crisis and represents strictly conservative and patriotic views. It has a strong focus on social and national issues, such as relations between Greece and its neighbouring countries.

¹⁴ Greek News (2021), *New Diplomatic Campaign by Athens: From the Mediterranean to India*, Available at: <https://greekcitytimes.com/2021/01/04/diplomatic-campaign-to-india/>

of Israel, Cyprus, and Greece have consistently stated that they consider building joint facilities for gas export. Israel and Cyprus has more hitches, the Aphrodite Gas Basin which is in Cypriot waters somewhat spreads into Israeli territorial waters which makes, Israel to refuse to sign a unitisation agreement to formally delineate the developments of natural gas and oil reserves, which delays the development of the reservoir.¹⁵

This has been causing problems for the Turkish Cypriots, who oppose anything done by the Republic of Cyprus concerning maritime border delineation and joint capital production. The basic rationale behind this Turkish Cypriot attitude is the claim that by virtue of the 1960 Constitution of the Republic of Cyprus, two equal constituent communities exist and so any unilateral Greek Cypriot action in this field creates *faits accomplis* and runs counter to the legitimate rights and interests of the Turkish Cypriots.¹⁶ Washington and Brussels have been trying to mediate between Israel and Turkey to resolve the crisis in their bilateral relations from 2008 to 2016, but also between Turkey, Cyprus and Greece, in a bid to resume negotiations to settle the Cyprus conflict and pave the way for an exploitation of the natural wealth in favour of energy-suffocating Europe.¹⁷ This strategy from the United States and European Countries has been propagated so that they depend less on Russian Energy resources.

As part of its repeated efforts to question Cyprus's sovereign right to use its hydrocarbon capital, Ankara has made several attempts to intervene in the Republic of Cyprus's EEZ. It is simply enough to claim that when it comes to Cyprus, Turkish statements have been backed up by armed intervention, and over the period of time there has been countless foreign attacks. Ankara had dispatched their own geologists and seismologist to start the first round of oceanographic research. Some analysts say that Turkey has been claiming control of the areas with known natural gas deposits in the eastern basin of the Mediterranean which extends from the shores of the Levant all the way to southern Crete and perhaps even beyond.

The discovery of hydrocarbons in Cyprus EEZ and generally in the Eastern Mediterranean altered the balance of power and facilitated formations of alliance axes in the geographical area of the Eastern Mediterranean, changing also the status quo regarding the efforts on resolving the Cyprus problem (*Khadduri 2012, 111–117*). Due to the political developments in Eastern Mediterranean region, the Cyprus issue has become a crucial international policy issue.

The backdrop of the Cyprus dispute, which put Greece and Turkey against each other ever since the Turkish invasion of North Cyprus in 1974, the energy-related ambitions of Cyprus and its allies marginalises Turkish interests on the regional energy market.¹⁸

8. Egypt as a Major Gas Distributor

Egypt and Israel, these two states have made the greatest progress in developing gas fields in the Eastern Mediterranean. In 2015, Italy's Eni Company discovered the gigantic Zohr field in Egypt, a major Arab state, which allowed Cairo to break the vicious circle of its dependence on imports and to cover its own demand for gas.¹⁹ However, the country's gas production was

¹⁵ Cohen, H. (2015) 'Cypriot President to visit Israel for gas talks', *Globes*. Available online at: <http://www.globes.co.il/en/article-cypriot-president-to-visit-israel-for-gas-talks-1001080015>

¹⁶ Gurel, A., Mullen, F. and Tzimitras, H. (2013) *The Cyprus Hydrocarbons Issue: Context, Positions and Future's Scenarios*, PRIO Cyprus Center, Nicosia.

¹⁷ Gurel, A. and Le Cornu, L. (2014) 'Can gas catalyse peace in the Eastern Mediterranean?' *The International Spectator: Italian Journal of International Affairs*, Vol. 49, pp.11–33.

¹⁸ Ibid-4

¹⁹ Ibid-4

severely hit by the so-called Arab Spring, as the political turmoil blocked the inflow of essential upstream investments.²⁰ Since 2011, Egypt's gas production has dramatically decreased, resulting in massive power cuts in 2012 and 2013 that helped catalyse protests that led to the overthrow of President Muhammad Morsi.²¹ Because of this in 2015, Egypt needed to start importing gas, a floating storage and regasification (FSR) unit was constructed near the Red Sea coast. After the Arab Spring crisis, LNG Plant infrastructure like Damietta and Idku and also pipelines like the El Arish-Ashkelon Pipeline and the Arab Gas Pipeline became obsolete.

The El Arish-Ashkel field (i.e., The Egypt-Israel pipeline) came to force again in 2008, delivering Egyptian gas to Israel. Israel relied on pipeline gas imports from Egypt for around half of its total consumption in 2010. More than a thousand Egyptians called for the complete termination of gas exports to Israel in 2011 after the Revolution of 25th January. Even though Israel had reportedly not kept its contractual commitments, gas was cut off from the country in 2012 ever since the pipeline has been sitting vacant.

Egypt plans to import gas from neighbouring nations and then liquefy it at the Egyptian LNG facility and export it worldwide, including Europe and Asia, through tanker deliveries. It has never interfered between the Greek-Turkish dispute over their maritime zones and till date it has never had a confrontation of EEZ's with Greece.

The Egyptian government is planning on launching 11 new gas projects and positioning itself as a regional hub for international gas trading and distribution.²² This initiation has been the result of Zohr Gas field discovery.

9. Discovery of Energy Fields

The recent gas discoveries have been looked forward to as providing an opportunity for new energy cooperation levels while creating space for a greater power base and solidifying peace in the region. The discovery of large hydrocarbon reserves in the eastern Mediterranean has caused consequences for a range of national and global expertise in the field of energy. Nations like United States and Russia along with supranational Europe holds different approaches towards attainment of the resources from the newly discovered gas fields which has manifested towards a competition.

The World Bank defines “resources” as “naturally originated materials that are essential and useful for mankind.” Links to and ownership of resources and wealth are two main determinants of the position of a state in the World Economic System. According to USA Geological Survey, 2010, the region consists of 122 trillion cubic feet of gas.²³

Explorations were halted after discovering hydrocarbons in 2012, which represents one of the most significant occurrences in the hydrocarbon exploration in the eastern Mediterranean region. One of the wealthiest gas fields found so far was named Tanin. It was found at a depth of 120 km off the coast of Israel in February of 2001, making it the seventh gas field located in the region.

²⁰ Bahgat (2012)

²¹ Al Monitor (2012)

²² Kesseba, K & Lagos, K (2019), “Five Countries in the eastern Mediterranean are shaking up Europe's map”, The Conversation, Available at: <https://theconversation.com/five-countries-in-the-eastern-mediterranean-are-shaking-up-europes-energy-map-119619>

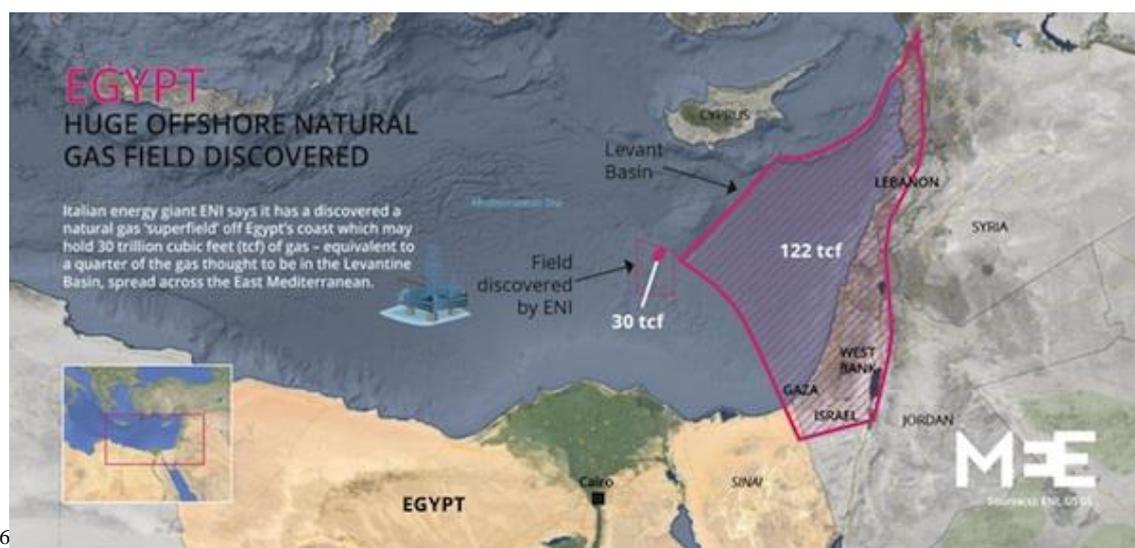
²³ US Geological survey (2010), “Assessment of undiscovered oil and gas resources of the levant basin province, Eastern Mediterranean”, World Petroleum Resources Project, Washington, DC, p. 1, available at: <https://pubs.usgs.gov/fs/2010/3014/pdf/FS10-3014.pdf>

- **The Zohr Gas Field – The largest Gas Field Ever Discovered**

Considering its size, the discovery of the massive Zohr field reserves (906 billion cubic metre)²⁴ in the Mediterranean has dramatically altered the global gas outlook and has also raised regional cooperation prospects. The addition of Zohr to the gas market helps relieve the problem of energy deficit region. Eni (Energy Company), in 2015 discovered this gas field which is one of the largest in the region. This propelled Eni to push forward an ambitious plan to create a Mediterranean hub and to pool gas resources from Cyprus, Egypt and Israel and cost-effectively market it to European countries.²⁵

Post Arab Spring, the Egyptian LNG exports stopped entirely, leaving the country with two LNG plants quite vain. Following that, Egypt had found it exceedingly difficult to satisfy its domestic consumption and had begun to import liquefied natural gas (LNG) in 2015.

With this new discovery of energy resource, Egyptian demand is not just for gas within the country; they are also eager to supply it to other countries. The plan is to link Israel's and Cyprus' subsea fields to Egypt's pipeline network. Cyprus even entered into a contract with Egypt to supply gas to its liquefied natural gas plants. Countries in the European Union like France and the Netherlands are legally bound with the two LNG ships from the Egyptian shore terminals which delivers energy resources from plants at Idku and Damietta.



The Zohr gas field discovery may be the beginning of new findings in Egypt's offshore territory. It has already been decided that international firms will begin exploration and production operations in the region, and if it turns out to be profitable, Zohr and other Egyptian onshore fields could help the country become an LNG exporter again. Zohr is located only 90 km away from Aphrodite (Cyprus), which in turn is only 7 km off from Leviathan (Israel). This

²⁴ Energy Egypt (2017), "The promises and challenges of Egypt's Zohr's gas field development", Available at: <https://energyegypt.net/the-promises-and-challenges-of-egypts-zohr-gas-field-development/>

²⁵ Politico, (2015), "Eni Chief: Egypt's Gas Gain Won't Harm Israel", <https://www.politico.eu/article/eni-gas-egypt-israel-cyprus-zohr/>

²⁶ Ibid

²⁷ European Parliament's Committee on Foreign Affairs, 2017, "Energy: A Shaping Factor For Regional Stability In The Eastern Mediterranean", Belgium, ISBN: 978-92-846-0946-8

proximity could allow a coordinated development of the fields and thus the creation of the economies of scale needed to put in place a competitive regional gas export infrastructure.²⁷

The developments and capitalisation on Zohr gas field and its potential to export gas through underwater pipeline from Egypt to Italy holds a major challenge for the Levant Basin and for Israel.

- **Levant Basin: The Biblical Sea Monster and its Importance**

Leviathan energy project / basin is the largest gas field offshore of Israel in its history. In 2019, it delivered its first gas to the Israeli domestic market, and in January 2020, Israel exported gas to Egypt and Jordan. Some observers were quick to identify a “a new great game’ with the discovery of natural gas (*Stratfor, 2018*). The basin has become a geopolitical arc from Greece to Israel (*Tsafos, 2019*) which demonstrates the initiation and involvement of states and non-state actors, which has led to transformations in social, political and economic sector of countries.

Leviathan field has two 120-km subsea pipelines through which natural gas gets transmitted straight to the Leviathan Platform. After purification at Israel Natural Gas Lines, it is then further exported. The energy produced through this Natural Gas is sustainable and free from pollution. This has led Israel to be the net exporter of natural gas.

It was anticipated that from the earliest stage that the development of Leviathan Gas Field in 2017 will have a significant effect on Israel’s potential from economic, military, to energy developments to the specific American, Israeli and Greek-Cypriot energy companies engaged in exploration and production.²⁸ Leviathan possesses 595 trillion cubic meters of liquid extract-of hydrocarbon. This discovery has become essential for Israel’s energy security and spurred growth both locally and globally.

From Israel’s point of view, opening up a large export market such as Egypt could generate interest in more foreign energy companies. The new round of licenses that the Israeli government offered for exploration in its EEZ (exclusive economic zone, extending 200 miles from its coast) included areas close to the Leviathan field.²⁹



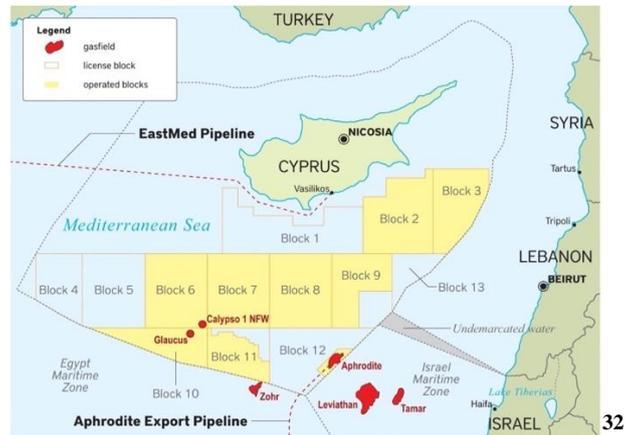
²⁸ <https://knowledge.wharton.upenn.edu/article/developing-israels-leviathan-gas-field-proven-mammoth-task/>

²⁹ Ibid-11

³⁰ <https://oilprice.com/Energy/Energy-General/Can-Energy-Bring-Peace-To-The-Levant-Basin.html>

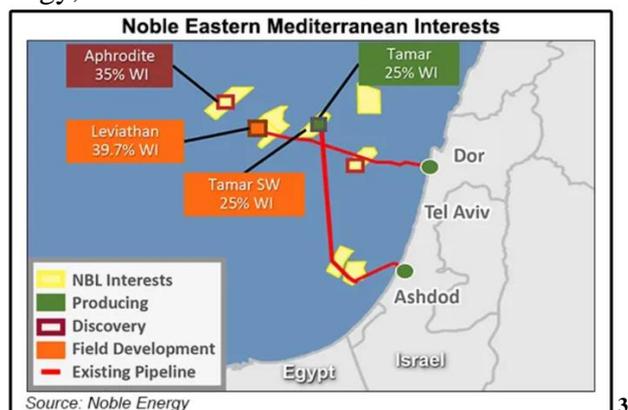
- **Aphrodite Field Offshore of Cyprus**

The exploration of Aphrodite Field, 180 kilometres off the southern western coast of Cyprus, at a depth of about 1,700 metres below sea level, was confirmed by Cyprus officials along with U.S. Noble Energy Company. This region represents an ample supply of gas for Cyprus, eliminating the need to import energy from other nations. It holds 5 to 8 tcf recoverable natural gas. Explorations in Aphrodite Field are carried out only by two companies specialized in this domain: the American Nobel Energy Company, holding 70 per cent of total operations, followed by Delek Group (30 per cent).³¹



- **The Tamar**

The Tamar basin is considered the third largest natural gas field. The U.S. gas firm Noble Energy discovered “Tamar” in 2009. Located at approximately 90 km north of the coast of Israel, it is at a location of 1,650 m below sea level. It was the first major gas field in the region. According to Noble Energy, Tamar Basin holds 10 tcf of recoverable natural gas.



10. Conclusion

³¹ Darbouche, H., El-katiri, L. and Fattouh, B. (2012), “East Mediterranean gas: what kind of a game-changer?”, Oxford Institute for Energy Studies (OIES), p. 4, available at: www.oxfordenergy.org/wpcms/wp-content/uploads/2012/12/NG-71.pdf

³² Barkar, A. (2019), “Israel blocking Aphrodite gas field development”, Tekmor Monitor, Available at: <http://tekmormonitor.blogspot.com/2019/12/israel-blocking-aphrodite-gas-field.html>

³³ Davis, C. (2019), “First Natural Gas Volumes from Israel’s Leviathan set for December, says Nobel” Natural Gas Intelligence, Available at: <https://www.naturalgasintel.com/first-natural-gas-volumes-from-israels-leviathan-set-for-december-says-noble/>

The availability of energy resources structures the region through the involvement of various state and non-state actors. The discovery of energy resources in the Eastern Mediterranean region has led to important geopolitical dynamics on sea and closest lands. It is also believed, it triggered “bonanza”³⁴ among the countries to grab the opportunity of signing deals with the EastMed countries for their profit. The reserves in the Eastern Mediterranean could serve as a source of energy for the nations in the region and potential outside customers such as the energy-starved Europe. A pressing constraint that the countries have to overcome is how to find safe and economically viable exporting opportunities. Due to its complex problems, the energy sector in the Eastern Mediterranean faces many challenges. However, particularly in Europe, competition from new energy resources, including alternative energy resources like wind and solar power, which creates fewer carbon emissions, is making a dilemma for gas power producers in the region.

The energy sector needs a comprehensive and long-term strategy that controls geopolitics to enable foreign investors to be willing to commit their capital for a long time in energy infrastructure projects. Thus, trends in the Eastern Mediterranean need to be looked at as something related to strategic geopolitical stability and balance of power. As energy markets become ever more dynamic, people can understand that their perception of the Eastern Mediterranean's unique importance is nothing more than face value, complex and multifaceted.

COVID-19 and its repercussions on economic instability have created problems in the Eastern Mediterranean. However, several countries are developing a greater degree of cooperation as the region becomes stronger and re-emerge gradually.

Even if the imminent danger of aggression has somewhat diminished, the long-term problems at sea and ashore it still continues to be unresolved. These rivalries and tensions are building up the conditions for increased risks. To conclude, according to the study, the whole Eastern Mediterranean region is at risk of turning into a lawless no man's land of insecurity and instability if the momentum for energy cooperation and co-existence were to be disrupted, if securitising the region does not take place; and one cannot go by *Winston Churchill's saying, “to achieve peace go for war”*. Hence, Energy security and cooperation on mutual terms between the countries is crucial which will pave way to economic, political and climate stability.

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³⁴ Energy Post, (2019), “*East Mediterranean Gas Finds: EU energy Bonanza or geopolitical headache?*”, Available at: <https://energypost.eu/east-mediterranean-gas-finds-eu-energy-bonanza-or-geopolitical-headache/>

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