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Exclusive Economic Zones (EEZ) in the Red Sea Region: Risks and Opportunities¹

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Introduction and Main Points

The Middle East has been endowed with various natural resources, including plentiful energy resources in the form of crude oil and natural gas fields. Many energy resources in the region are located at sea or near the coastal shelf. The maritime region in which the energy resources are found is referred to in professional circles as the Exclusive Economic Zone – EEZ. In this article we shall also use the term Economic Waters. This is a relatively new term that entered maritime law in the course of drafting the Convention on the Law of the Sea in 1982. This is a maritime region which can span a strip of up to 200 nautical miles in width from the baseline (the country's coast), within which the country has sovereign rights to explore and exploit natural resources, both living and non-living, on the seafloor, and also to carry out prospecting activities and economic exploitation such as energy production from currents, winds and water. A state is permitted, but not required, to declare exclusive economic zones.² Throughout the Middle East region, there are three maritime spaces in which there are EEZ's: the Persian Gulf and the Gulf of Oman; the eastern Mediterranean; and the Red Sea.

In my opinion, the Economic Waters within the Red Sea region have not been adequately reviewed relative to the other two regions. In view of the increasing importance of the Red Sea, it is advisable to shed some light on this region and expand on the information regarding the energy potential within the maritime medium of the Red Sea – a zone which has been developing in recent years, including regarding natural gas resources.

So far, the Red Sea has functioned as a main transit route for energy shipments. Nowadays the sources from which energy is extracted are in the sea itself. This change is expected to radically alter the definition of the Red Sea Basin and its importance. On the one hand, it may be holding the seeds of a great promise and prosperity for all of the countries in the Basin, but on the other hand, it might also turn into a source of disputes and power struggles, especially when considering the battle raging between the superpowers and the regional powers over hegemony in the region.

¹ The topic of the article is very dynamic. It reflects the situation at the time of writing in November 2021.

² For more on the term EEZ, see Sarah Weiss Maudi, *Maritime Law*, clause 21.7

Regardless of the Economic Waters issue, the Red Sea serves, now as in the past, as a bustling sea route for goods and energy from the Far East to Europe and vice versa. In recent years, the interest and attention regarding the Red Sea has increased due to violent conflicts unfolding within it, in particular regarding the Red Sea, and in particular regarding a strategic threat to one of the world's most critical choke points at the southern outlet of the Red Sea, namely the Straits of Bab el-Mandeb.

The concern is that the freedom of navigation in this important strait will be curtailed due to actual hostile activities – related to the protracted civil war in Yemen, increasing penetration by Iran, which is supporting the Houthis – one of the toughest factions opposing the official government in Yemen – to the southern Red Sea, and concerns of maritime terrorism and piracy in this region.

Also in the background is the growing tensions between Egypt and Ethiopia (the latter being a landlocked country following the breakaway of Eritrea), following the construction of the Renaissance Dam in Ethiopia – a dam which Egypt views as a severe threat to the water reserves it needs in order to exist as a country with a large population.

The goal of this article is to shed light on the Economic Waters within the Red Sea and, in the process, to point out some fundamental data, varying details and the implications in terms of challenges and threat profiles regarding the countries bordering the Red Sea Basin. The first part of the article will review the fundamental factors in terms of maritime borders between the various countries, disputes or understandings and agreements. The second part will review the current activity regarding the actual or potential exploitation of the offshore energy resources. The final part will present an analysis of the implications and challenges facing the region's countries within the general context and within the specific context of exploiting the energy resources.

Geographic Fundamentals

Agreements, understandings and disputes concerning the demarcation of the Economic Waters and the maritime boundaries within the Red Sea

The unique geographic structure of the Red Sea,³ as a kind of 2,250 km (1215 nautical miles) long inlet from the Indian Ocean, allows in principle for a relatively straightforward division and demarcation of the Economic Waters zones between

³ For more on this see Benni Ben Ari's article, The Geography of the Red Sea. *The Strategic Series* 2020 (Haifa: Chaikin Chair for Geostrategy, University of Haifa, 2021) pp. 82–106 [Hebrew].

the various countries along its coast. There are two strategic choke points at both ends of the Red Sea, —in the south, Bab el-Mandeb, a narrow strait connecting the Gulf of Aden to the Red Sea, and in the north, the Suez Canal.⁴ The Red Sea has Egypt, Sudan and Eritrea on its western shores, with Djibouti straddling the southern tip of the Sea just west of the Strait of Bab el-Mandeb. On the eastern shores lie Saudi Arabia, which has the longest stretch of coastline along the Red Sea. Yemen lies to the south of Saudi Arabia while on the northern tip of the Gulf of Aqaba lie Jordan and Israel. The latter two do not have any mineral resources on the northern Gulf of Aqaba-Eilat.

Besides the importance of the Red Sea as a strategic shipping lane connecting the trade between three continents (Asia, Africa and Europe) between the Indian Ocean and the Mediterranean, it is home to a rich and diverse ecosystem, which has been endowed with deposits of oil and gas, and therefore the demarcation of its economic waters is of importance.

The countries on the western shores of the Red Sea

Egypt shares the longest common maritime boundary in the Red Sea with Saudi Arabia. This shared border is approximately 910 km long (approximately 490 nautical miles). It extends from the north of the Gulf of Aqaba down to the center of the Red Sea (latitude 22 degrees). An agreement was signed between the two countries in April 2016, regularizing the maritime border between them. This took place during Saudi King Salman's visit to Egypt, during which several investment projects were announced (see Figure 2). In the joint communique issued in Cairo, they said: "This [agreement] enables both countries to benefit from the exclusive economic zone for each, with whatever resources and treasures they contain".⁵ Based on this agreement, and as will be discussed later on, in the recent two years the two countries have begun taking measures to realize the energy potential within their respective exclusive economic zones.

An interesting point, which can be observed in the map of the agreement between Egypt and Saudi Arabia, is that the Egyptian side includes the maritime region of the Hala'ib Triangle – an area disputed between Egypt and Sudan (see Figure 3). It is likely that the marking of the maritime border opposite the Hala'ib Triangle was

⁴ For more on the Red Sea's characteristics, see: Benni Ben Ari and Moshe Terdiman's article, Geography and Strategy in the Red Sea – the Current Situation, In Shaul Chorev and Ehud Gonen (eds.), *Maritime Strategic Evaluation for Israel 2020/21* (Haifa: Maritime Policy and Strategy Research Center, University of Haifa, 2021) pp. 99–124.

⁵ Reuters Staff, Saudi, Egypt draw up maritime borders, *Reuters*, April 9, 2016.

introduced following a demand from Egypt, which has been claiming sovereignty over that area ever since Sudan achieved its independence in 1956. The area is rich in iron ore, gold, magnesium and other natural resources. In the past, the Sudanese government granted a Canadian company a concession to explore oil in the waters off the Hala'ib Triangle shores, a fact which inflamed tensions between Egypt and Sudan.



Figure 1: General map of the Red Sea, demarcating the Economic Waters of the countries bordering its shores



Figure 2: Map of the maritime boundary agreement between Saudi Arabia and Egypt from 2016

Sudan Nowadays, due to their common interest against Ethiopia's Renaissance Dam, the relations between Sudan and Egypt have warmed slightly, although it is still not clear whether this will at last bring about a settlement of the dispute between them over the Hala'ib Triangle. In any case, in tenders for natural gas exploration, which the Egyptians issued in 2019 in the Red Sea, the maritime region off the Hala'ib coast was included in the list of sites ("blocks") on offer. Contrary to the Egyptian position, the Economic Waters map claimed by Sudan shows that the maritime region opposite the Hala'ib Triangle is included in the Sudanese demand (see Figure 4). Beyond the Hala'ib Triangle, Sudan, which is also situated on the western shores of the Red Sea, shares a maritime border with Saudi Arabia, which is located on the eastern seaboard of the Red Sea. The maritime boundary shared between Sudan and Saudi

Arabia spans a stretch of approximately 440 km (approximately 240 nautical miles), not including the Hala'ib Triangle.



Figure 3: Map of the Hala'ib Triangle



Figure 4: Map of the Economic Waters claimed by Sudan

Eritrea is located on the southwestern shores of the Red Sea. It achieved its official independence in 1993 when it seceded from Ethiopia. Eritrea shares a maritime boundary with Sudan to the north, while opposite lie two countries along the eastern coast of the Red Sea – Saudi Arabia and Yemen (see Figure 5). The maritime boundary between Saudi Arabia and Eritrea is a stretch of approximately 320 km (approximately 170 nautical miles). In 1999, Eritrea and Yemen signed a treaty settling their maritime boundary in a section of approximately 380 km (approximately 205 nautical miles) (see Figure 6).⁶

The Republic of Djibouti is south of Eritrea, on the western shores of the Red Sea on the way to the Gulf of Aden. It gained its independence from France in 1977. Djibouti is on the southwestern side of the Straits of Bab el-Mandeb. Its southeastern border is with Somalia. Regarding the small Republic of Djibouti, no data or visual information was found as to the Economic Waters belonging to this country, nor were any claims, made by Djibouti in this regard, found.

⁶ For more on the maritime boundary treaty between Eritrea and Yemen, see: Award of the Arbitral Tribunal in the second stage of the proceedings between Eritrea and Yemen (Maritime Delimitation) Decision, vol. XXII, pp. 335–410, December 17, 1999.

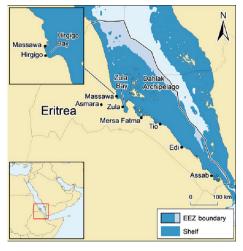
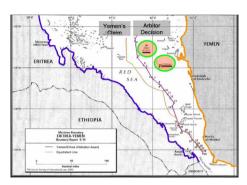
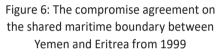


Figure 5: Map of the Eritrean Economic Waters





The countries along the eastern shores of the Red Sea

Saudi Arabia is located on the eastern side of the Red Sea and has the longest coast along this sea (including the Gulf of Aqaba) compared with the rest of the countries bordering it. Its shores span approximately 1,670 km (900 nautical miles). It borders Yemen to the south, which is currently being torn apart by a prolonged bloody civil war. The region along the Red Sea between Saudi Arabia and the Straits of Bab el-Mandeb are controlled by the Houthis, currently propped up by the Iranians. The Houthis are a bitter adversary of the central government both in Yemen and in Saudi Arabia. As for the demarcation of the Economic Waters between Saudi Arabia and Yemen, there are no known disputes. However, this issue is marginal nowadays in view of the violence and hostilities between the warring parties in the Yemeni civil war, where the Saudis support the central government, while the United Arab Emirates support the separatist Southern Transitional Council in South Yemen. The armed conflict in this region has its manifestations in the maritime space as well, including the use by the Houthis (with considerable support from Iran and Hezbollah) of naval mines, missiles, UAV's, suicide boats and various other weapons launched against shipping, infrastructure, and port installations along the Saudi coast.

Yemen is the result of the unification of North and South Yemen in 1990. It has a coastline that stretches between the shorter portion along the Red Sea as far as the Straits of Bab el-Mandeb and the longer portion on the northern coast of the Gulf of Aden. As for the Yemeni stretch of coastline in the Red Sea south of the Saudi coast

and opposite the Eritrean coast, an agreement had been signed in 1999 between Yemen and Eritrea, demarcating a shared maritime boundary of approximately 380 km.

To sum up this section, the countries along the Red Sea coast have for the most part settled the maritime boundary between them, and therefore it is generally quite clear how the Exclusive Economic Zones (EEZ) are divided between them. The only exception is the disputed region of the Hala'ib Triangle between Egypt and Sudan, along the 22 degrees northern latitude. The southern section where Yemen borders Saudi Arabia is unclear as well, in view of the civil war which is still raging there and the splitting of the Yemeni coast between several factions which control it.

Actual Realization of the Energy Resources in the Red Sea

Of the countries reviewed in the previous section, which dealt primarily with the demarcation of the maritime boundaries between them, Egypt and Saudi Arabia are the only countries⁷ which are actually exploiting the energy potential within their territories through the extraction of crude oil over several decades, while recently they have begun exploring for and extracting natural gas.

Egypt – Energy Fields in the Gulf of Suez

Egypt has been extracting crude oil since the early 1900s. Over half of Egypt's oil reserves are in offshore oil fields, primarily in the Gulf of Suez. Egypt is an important energy producer which is not a member of OPEC.⁸ Commercial amounts of oil were first discovered in 1908. Additional discoveries were made in the late 1930s along the Gulf of Suez coast and within the waters of the Gulf itself.

Egypt extracted crude oil from offshore installations in the Gulf of Suez, with the most prominent and widely-known being the oil fields dubbed Morgan, Belayim and July. During the Six-Day War (June 1967), Israel conquered the Sinai Peninsula and began extracting crude oil from the "Oil Corridor" on the eastern coast of the Gulf of Suez: the Abu Rodeis site, Ras-Sudar, Abu Zenima and a cluster of offshore

⁷ To be precise, Sudan, in the late 1950s, attempted to explore oil through the AGIP company along its Red Sea coast, with no meaningful results History of Oil Exploration in Sudan, *Republic of Sudan Ministry of Energy & Oil*. 50 years later (in 2010), Sudan announced that it would be searching for oil in the Red Sea waters with the help of the China National Offshore Oil Corporation, however it is unknown whether this initiative was indeed pursued. Sudan starts oil exploration in Red Sea, *The European Coalition on Oil in Sudan.*

⁸ Organization of the Petroleum Exporting Countries – OPEC.

production facilities known as Belayim. Israel shipped the crude oil it extracted from the oil corridor in Sinai using tankers, which were operating in its service, to the oil terminal in Eilat, and from there through the Eilat-Ashkelon oil pipeline (nowadays named Europe-Asia Pipeline Co, EAPC) to the Mediterranean. This production by Israel, through a government corporation named Netivei Neft, infuriated the Egyptians, who considered Israel to have usurped Egypt's natural resources for its own use. For this reason, the Egyptian leadership decided, among other things, to task the Egyptian Navy with laying naval mines at the Straits of Gubal during the October 1973 war, to prevent tanker traffic in Israel's service from making the trip between the Gulf of Suez and the Gulf of Eilat. The Egyptian mining was done in secret and caught Israel by surprise. On October 26, 1973, just two days after a ceasefire came into effect, the naval minelaying become evident to Israel when a tanker in its service named Siris hit two powerful mines and sank.⁹ The naval mining action in the Straits of Gubal was a final touch to the naval blockade the Egyptian Navy had imposed in the central and southern Red Sea through the use of destroyers and submarines. This was done in an effort to halt shipping to and from the Port of Eilat, and in particular to prevent crude oil from reaching Israel from the Persian Gulf.

In September 1975, as part of the interim agreement (Sinai II) with Egypt, Israel agreed to vacate the oil installations in Sinai. After the production facilities were returned to the Egyptians, additional oil fields were discovered in western Sinai. However, 50% of Egypt's crude oil continued to be extracted from the Gulf of Suez. Between 1996 and 2005, the crude oil production decreased following depletion of the existing fields and the failure to develop new ones. Concurrent with the decline in crude oil production, new deposits of natural gas were being discovered, initially in the Mediterranean, with the first signs of gas deposits being discovered in the late 1960s. The first was discovered in 1969 in the Abu Qir Bay (close to the Port of Alexandria).¹⁰ Egypt's gas fields in the Mediterranean, most of which were discovered from the 1990s onwards, and in particular during the first two decades of the 21st century, are not within the scope of this article.

The Gulf of Suez continues to be a source for production of crude oil, however in recent years it has also entered the era of natural gas production. The Norwegian

⁹ About the surprise naval mining in the Straits of Gubal during the October 1973 war, see: Shlomo Guetta, The Egyptian Sea Mining Surprise during the Yom Kippur War (October War 1973), In Shaul Chorev and Ehud Gonen (eds.), *Maritime Strategic Evaluation for Israel 2020/21*, (Haifa: Maritime Policy and Strategy Research Center, University of Haifa, 2021) pp. 228–242.

¹⁰ From the Egyptian Ministry of Petroleum and Mineral Resources website Natural Gas, *Ministry of Petroleum and Mineral Resources*.

company Neptune won an oil exploration tender in 2018 to explore and produce crude oil and gas in the offshore field named Al Amal (block No. 4), located in the southwestern section of the Gulf of Suez, south of Ras Gharib and north of Al-Ghardaqah (see Figure 7).¹¹

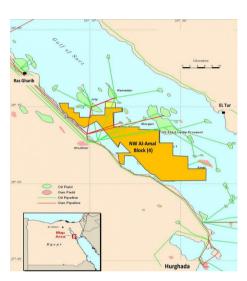


Figure 7: The Neptune concession map for oil and gas exploration in the South Gulf of Suez (North Red Sea).



Figure 8: Area of responsibility of the Egyptian holding company Ganope in the Red Sea (between latitude 22 degrees in the south and latitude 28 degrees in the north)

Egypt – Potential gas fields in the Red Sea

In the previous decade, feasibility checks were conducted for gas exploration in the Red Sea, headed by the Egyptian holding company Ganope. Apparently, following the maritime boundary agreement between Egypt and Saudi Arabia, signed in 2016, in 2017 agreements were signed with the American company Schlumberger and with the British TGC to conduct preliminary seismic surveys in the Red Sea. In March 2019, based on the findings of the seismic surveys, Egypt issued a huge gas exploration tender in 10 sites ("Blocks") within the maritime region spanning from the northern Red Sea as far as the Sudanese border, including the maritime region of the Hala'ib Triangle (see figures 8 and 9). The tender was closed in September 2019.

¹¹ Neptune Energy awarded oil exploration license in Egypt, *World Oil*, 2/12/2019.

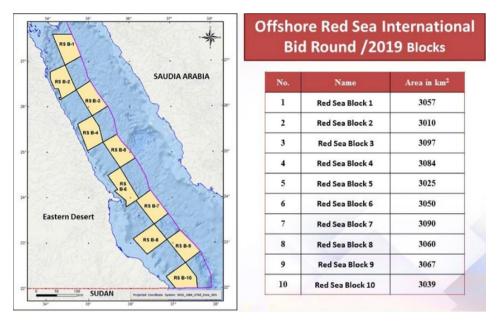


Figure 9: The blocks (sites) included in the 2019 Egyptian tender

At the end of December 2019, the names of the companies that had won three of the ten blocks included in the tender were announced. American company Chevron won block 1 (figure 10), Dutch Shell won block 3 (figure 11), and block 4 went to the United Arab Emirates company Mubadala, jointly with Dutch Shell (figure 12). It is worth noting that Shell and Chevron are also involved in gas exploration and production in Egypt's Economic Waters in the Mediterranean. Another noteworthy fact is that Chevron, the American energy giant, which until 2019 operated only in the Persian Gulf region in the Middle East, got involved also in Israel's Economic Waters after buying Noble Energy's assets in the Tamar and Leviatan gas fields.

In July 2020, the Egyptian parliament approved the wins those companies had made in those three north Red Sea blocks.¹² In this context it should be noted that so far, to the best of my knowledge, no activity has been detected indicating discovery or actual production of a single gas deposit from any one of the above blocks. Another unclear fact concerns block 2, the winner of which, if any, remains unknown.

Announcement of Egyptian Parliament approval of 12 gas and oil exploration agreements, including in the Red Sea: Egypt's House of Representatives approves 12 Oil & Gas E&P Agreements, Energy Egypt, July 7, 2020.

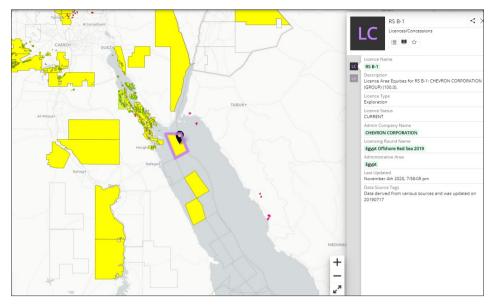


Figure 10: Chevron's win of Block 1

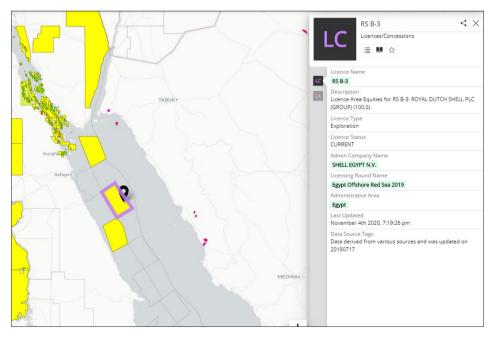


Figure 11: Shell's win of Block 3

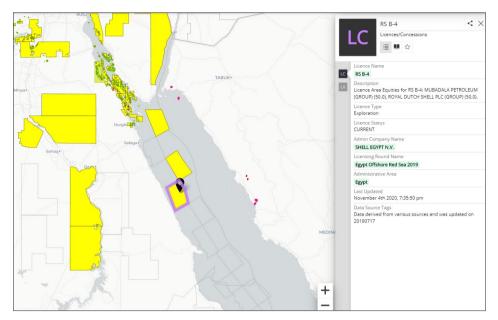


Figure 12: Mubadala's and Shell's win of Block 4

In short, Egypt has been producing crude oil from offshore and onshore production facilities within the Gulf of Suez region, on both its shores, for over 100 years. Norway's Neptune has recently begun producing gas in the southern Gulf of Suez. As for the Red Sea, following the maritime boundaries agreement with Saudi Arabia, seismic surveys were carried out, which likely produced positive results. Following these, Egypt issued a tender and three leading energy companies have in the meantime already had wins in the tender. Exploration activities or actual production have not yet been detected. Apparently, the Red Sea holds good potential, as far as Egypt is concerned, for gas deposit discoveries, which will be added onto the ample deposits which have already been discovered, in the Mediterranean over the past two decades.

Saudi Arabia – Potential and realization of energy in the Red Sea

Most of Saudi Arabia's energy reserves are concentrated in the Persian Gulf and on its shores. In particularly in the al Hasa Oasis. Saudi Arabia is one of the world's largest energy producers. This began in the 1940s through ARAMCO – the Arabian-American Oil Company – but beginning in the 1970s, Saudi Arabia took full control over the oil production within its boundaries. In 1980, Saudi Arabia became the Company's sole stockholder, and the company's name was changed to Saudi ARAMCO.

Following the agreement with Egypt in 2016, Saudi Arabia began searching for gas deposits in the Red Sea through its national energy company ARAMCO. On March 7, 2019, Saudi Ministry of Energy Khalid Al-Falih, announced the discovery of "large quantities of gas" in the Red Sea. Al-Falih noted that ARAMCO would be stepping up its natural gas exploration activities in the Red Sea over the next two years. In his statement, Al-Falih did not specify the estimated quantity of natural gas found, nor did he indicate the location of the newly-discovered deposit. He did however explain that the oil quantities in the Red Sea were low and that the cost of its extraction was prohibitive since the oil reservoirs are located at depths ranging from 1,200 to 1,500 meters below the surface. It should be noted, that before the new reservoir was discovered in the Red Sea, the 2017 data from the US Energy Information Administration showed that Saudi Arabia had natural gas production totaled about 12.4 billion cubic feet per day, compared with 12.03 billion in 2016.¹³

Regardless of the size of the new Saudi natural gas deposit in the Red Sea, the very fact of its discovery shows that the Red Sea, too, is a potential region where more gas deposits may be found. It is possible that the discovery in Saudi Arabia motivated the Egyptians to issue the tender for gas exploration that same year in the ten blocks on the western side of the Red Sea.

Oil pipelines in the Red Sea

This area is not directly related to this paper's main them ("Economic Waters"), however to complete the picture, and in order to present another aspect related to the importance of the Red Sea for the world of global energy marketing, it is worth discussing briefly.

Oil pipelines serve for transporting oil from its extraction site to an oil refinery or port from which it continues in tankers to oil refineries and from there to distribution stations. Oil pipelines are of considerable economic and political importance. As an interface to the Red Sea, one can point to three such piping systems:

 The oil pipeline from the Persian Gulf to Saudi Arabian city of Yanbu on the Red Sea coast. This line was built to bypass the Straits of Hormuz, which are under threat from the Iranians and their proxies, the Houthis. Unrelated to the Red Sea, the Saudis once had the TAPline pipeline, which traversed Jordan and split

¹³ A report quoting the Saudi news agency SPA: Large gas reserves found off Saudi Arabia's Red Sea coast, *Arabian Business*, 10 Mar. 2019. And also: Saudi Arabia finds 'large quantities of gas' in Red Sea, Energy, 8 Mar. 2019

to Syria and Lebanon. In addition, a pipeline is planned to exit Saudi Arabia via Oman to the Indian Ocean coast also in order to bypass the Straits of Hormuz.

- 2. The SUMED oil pipeline a pipeline in Egypt that transports crude oil from the Ain Sukhna terminal on the northern end of the Gulf of Suez to Alexandria on the Mediterranean coast. This pipeline is intended to serve as an alternative to the passage of oil tankers departing from the Persian Gulf through the Suez Canal.
- 3. The Eilat-Ashkelon Pipeline, which is today named the Europe Asia Pipeline Company (EAPC) was originally built to transport Iranian oil to the Mediterranean, bypassing the Suez Canal. Following the 'Abraham Accords', recent reports suggest it could serve for transferring crude oil from the United Arab Emirates in tankers to the Port of Eilat, from where it will continue through the pipeline to the Mediterranean. This option has aroused vociferous criticism from environmental protection quarters due to the fear of the risks of crude oil spills in the Gulf of Eilat as well as spills due to damage and malfunctions along the overland pipeline's route from Eilat to Ashkelon.¹⁴

In short, concerning the extraction of crude oil, the Red Sea is emerging as a region in which natural energy resources are being used. This has been done since the early 20th century, particularly in the Gulf of Suez, and concerning natural gas, this area has also seen an uptick in activity in recent years, following the measures taken in Egypt and Saudi Arabia.

Opportunities and Risk Scenarios

The previous two sections reviewed the picture of the Exclusive Economic Zones (EEZ) belonging to the countries bordering the Red Sea and the arrangements, agreements, understandings or disputes between them as to their maritime borders. As for the actual realization of the energy resource potential in the Red Sea, the review focused mainly on Egypt and Saudi Arabia.

In terms of the potential of the Economic Waters in the Red Sea, as well as from the aspect of actual realization, it is clear that the Red Sea will develop into another center of energy in the Middle East in the coming years. Although this will not be at the magnitude we have become accustomed to in the Eastern Mediterranean and Persian Gulf, it is still a focus that should be taken seriously in future. On the one hand, the region holds promise to increase the revenues of the stakeholder

¹⁴ On this issue, see Shaul Chorev and Moshe Terdiman, Extending the EAPC activity – and the lessons of the Guardian of the Walls Operation, Maritime Policy & Strategy Research Center, University of Haifa, June 2021 [Hebrew].

countries, however on the other hand, it might also provoke disputes and conflicts on top of those which have already existed there in the past decade. These include the tension between Egypt and Ethiopia over the Renaissance Dam, the political instability in countries like Sudan and Ethiopia, the protracted civil war in Yemen and the Iranian involvement in that war, which highlights the risks to freedom of navigation in the critical choke point at the south of the Red Sea – the Straits of Bab el-Mandeb. And last but not least are the threats of terrorism and piracy in the Gulf of Aden region on the way to the Red Sea.

The level of these risks and threats in the southern Red Sea has lately been on the agenda of the command of the American Fifth Fleet. In view of this, the US Navy (Fifth Fleet) Central Command decided to send two minesweepers into the southern Red Sea – the USS Gladiator (MCM 11) and the USS Sentry (MCM 3), which crossed the Straits of Bab el-Mandeb on October 18, 2021. These vessels are intended to purge and neutralize naval mines which get randomly laid by the Houthis near the Straits of Bab el-Mandeb and near Saudi ports and islands in the Red Sea.



Figure 13: The US Naby minesweeper that entered the Red Sea in October 2021

Regarding the clearly visible risks and opportunities concerning the Red Sea, it is worth quoting Dr. Moshe Terdiman, an expert on the Red Sea Basin and the environment in the Arab Muslim world:

Undoubtedly, the Red Sea Basin is becoming extremely active in terms of energy. Until now, the Red Sea has functioned as a main transit route for energy shipments. However, from now on, the Red Sea is in itself a source for energy production. This change is expected to radically alter the definition of the Red Sea Basin and its importance. It may be holding the seeds of a great promise and prosperity for all of the countries in the Basin, but at the same time it might also be a source of disputes and power struggles, especially when considering the battle raging between the superpowers and the regional powers over hegemony in the region. Time will tell how this unfolds. However, because of this, Israel, which is also located in the Red Sea Basin, should be mindful of events in this highly-dynamic region.¹⁵

Dr. Terdiman's analysis from early 2019 remains valid and relevant today too, in particular in view of the sensitivity that has emerged in the past two years around the Red Sea, which involves Israel. As mentioned earlier, Saudi Arabia and Egypt are currently the lead players concerning the Economic Waters in the Red Sea and their exploitation, and therefore we shall devote a few final words to the challenges and threat profiles, and to these two countries' response to them.

Saudi Arabia

Most of the Kingdom's energy assets are concentrated in the eastern parts of the Arabian Peninsula bordering the Persian Gulf. However, in recent years, Saudi Arabia has come to regard the Red Sea as being highly important and is even establishing one of its most prestigious projects there – Neom, a futuristic city in the southern part of the Gulf of Aqaba, which will serve as a bridgehead to Egypt's Sharm el-Sheikh. The project was announced in 2017 as a central feature of the Saudi Vision 2030 Plan.

The Saudi naval force buildup is also in full momentum, part of which is being directed at the Red Sea Region. Saudi Arabia has three main ports in this region – Jeddah, Yanbu and Jizan. The Port of Jeddah is Saudi Arabia's main Red Sea port, named after the Late King Faisal. The Port's naval dock serves the Saudi "Western Fleet".¹⁶

The main Saudi Navy vessels currently deployed in the Red Sea are four French-made missile frigates (*Al-Madinah* class), built in the 1980s and also two missile boats and a minesweeper. The rest of the surface combat vessels (frigates and missile corvettes), which were built in the United States and France are deployed in the Persian Gulf.

¹⁵ See Moshe Terdiman's article, The World in Turmoil / A Sea of Energy. Davar, March 22 2019 [Hebrew]. Further elaboration about the Red Sea can be found in the two following articles: Moshe Terdiman, The Boiling Water of the Red Sea: Power Struggles and Israel's Iterests. Mitvim, The Israeli Institute of Regional Foreign Policy, September 2018; Moshe Terdiman, Israel and the Red Sea Basin: Challenges and Opportunities. Mitvim, December 2020 [Hebrew].

¹⁶ The Saudi Navy is split between two arenas. The "Eastern Fleet" in the Persian Gulf, whose home port is Jubail, named after the Late King Abdulaziz, and the "Western Fleet", based in Jeddah. The Naval headquarters are located in the capital Riyadh. For general information on the Saudi Navy, go to the Wikipedia entry: Royal Saudi Navy

Presently, the Saudi Navy is in the midst of an ambitious procurement drive, apparently as part of the Vision 2030. The total worth of this drive is approximately \$4 billion. It can be assumed that some of the vessels included in this program will be posted to the Red Sea arena:

- Four multipurpose missile frigates of the *Freedom* class are currently under construction in the Fincantieri Marinette Marine shipyards in the United States. Delivery is scheduled to begin in 2023. This deal is worth approximately \$2 billion.¹⁷
- Five missile corvettes model AVANTE-2000, which are currently under construction at the Navantia shipyard in Spain. So far, three corvettes, which are included in this project, named Sarawat, have been launched, costing approximately \$2.1 billion.¹⁸



Figure 14: Vessels under construction in the United States and Spain

Saudi Arabia has in the past decade been embroiled in the ongoing civil war in Yemen. It supports the central government headed by Yemeni President Abdrabbuh Mansur Hadi. Saudi Arabia's bitter enemies in this war are the Houthis, who are supported, trained and armed by Iran. Iran also provides the knowledge needed for self-production of various armaments. Since the Houthis control the Red Sea region of Yemen, this war has also assumed considerable naval dimensions. The Houthi

¹⁷ About the construction of the frigates in the United States, see: David B. Larter, Lockheed inks \$1.96B contract for Saudi frigate, *Defense News*, December 20, 2019.

¹⁸ Sarawat, the name given to the corvette construction project in Spain, is a mountain range in western Saudi Arabia, bordering the Red Sea. Does the project name hint to the boats' being deployed in the Red Sea? Possibly. For more on the construction of the corvettes in Spain, see: Avante 2200 Combatant corvette is designed and built by Spanish shipbuilder Navantia, *Naval Technology*, September 18, 2020; Royal Saudi Navy launches new ship in Spain, *Arab News*, April 1, 2021.

rebels have laid naval mines along the coast in Yemeni waters and also opposite the Saudi coast. They have used explosive boat and launched land-to-sea missiles primarily against Saudi naval vessels. At least one case is known (in April 2018) in which they hit a Saudi oil tanker.

Egypt¹⁹

Egypt's main energy assets are currently located in the Eastern Mediterranean – particularly prolific gas deposits discovered over the past decade. However, the Red Sea is of no less strategic importance because of the two choke points – the Suez Canal and the Straits of Bab el-Mandeb – that are very important to Egypt's economy. Freedom of navigation in these points have implications on Egyptian revenues.²⁰

As for the threat of naval mine laying mentioned earlier, it is worth noting that in 1984 Egypt itself fell victim to naval mines laid by Libya in the Gulf of Suez, apparently at the behest of Iran, in order to disrupt the transfer of weapons destined for Iraq from Egypt's Port of Suez to the ports of Aqaba in Jordan and Yanbu in Saudi Arabia. This mining activity demonstrated to Egypt and to the other users of the Suez Canal the risks involved in such hostile action.

The importance of these choke points to Egypt is further increased due to the potential gas deposits in the Red Sea region, being a continuation of the energy deposits already in use in the Gulf of Suez.

In addition, there are serious tensions building up between Egypt and Ethiopia due to the construction and operation of the Renaissance Dam in Ethiopia. Egypt considers it an existential imperative that the proper flow of water in the Nile River is not disrupted due to this dam, and that the flow rate needed by a populous country like Egypt (over 100 million inhabitants) must not be diminished. Sudan shares this concern with Egypt. Although Ethiopia does not have an outlet to the sea following the separation from Eritrea, the maritime medium in the Red Sea and Gulf of Aden allows Egypt to come dangerously close to Ethiopia. This might

¹⁹ On the challenges facing the Egyptian Navy and on its significant force buildup in recent years, see Shlomo Guetta, "The Egyptian Navy - Its Origins and Its Future (Is It on Its Way to Becoming a "Green Water" Navy?" in Shaul Chorev and Ehud Gonen (eds.), *Strategic Maritime Evaluation for Israel 2019/20* (Haifa: Maritime Policy and Strategy Research Center, University of Haifa, 2020) pp. 1–22; Shlomo Guetta, The Egyptian Navy: Renewal in the Face of Combined Challenges, *Israel Defense*, May 24, 2020 [Hebrew].

²⁰ The incident in March 2021, when the Suez Canal got blocked for a week by the giant *Ever Given* container ship, demonstrated this dependency and the economic damage caused by the blocking of shipping traffic in the Canal was estimated at \$9.6 billion per day.

explain the cooperation agreement Egypt signed recently with Djibouti, including the construction of a logistic base on its territory.²¹

Another challenge breathing down Egypt's neck in the Red Sea is the possibility of Turkish penetration and presence in the Red Sea. Turkey nowadays is an adversary of Egypt, ever since 2013, when President Abdel Fattah a-Sisi deposed the then-President of Egypt, Mohamed Morsi, who was a member of the Muslim Brotherhood. Ever since the attempted coup in 2016, Turkey has been actively implementing a Neo-Ottoman policy in the Red Sea region and in the Horn of Africa. In 2018, Ankara signed an agreement with Khartoum, allowing it to maintain a military presence in Sudan and in its territorial waters, including a base on the Island of Suakin, and it is also negotiating with Dibouti on the construction of another base. Qatar also signed an agreement with Sudan in 2018 regarding a port in Suakin. The Red Sea, then, is an arena in which various countries like Turkey and Qatar are increasing their involvement.²² It is unclear where the relations between Turkey and Sudan stand today following the improvement in relations between Egypt and Sudan due to their shared interests over the Renaissance Dam. Further uncertainty has been added in late October 2021 in view of the political turbulence in Sudan. It is likely that Turkey will continue to seek renewed dialog with Sudan as part of its strategy of restoring the Ottoman "glory" of yesteryear.

From the Egyptian perspective, the Red Sea region, including the Gulf of Aden, poses challenges and threat profiles which the Egyptians are compelled to address. The current characteristics of the Red Sea arena, as well as the challenges Egypt is facing in this arena, have resulted in a strategic decision to reorganize the Egyptian naval space and to divide it into two arenas and, accordingly, into two fleets: the "Southern Fleet" in the Red Sea and the "Northern Fleet" in the Mediterranean. This division has been made in order to improve and streamline the naval force building and its operation. To enable each "Fleet" freedom of operation and control in their respective arenas, in an effort to reduce to a minimum the interdependency between the two arenas as had been the case in the past – for example when the Suez Canal was blocked between the June 1967 war and the October 1973 war.

The organizational division included considerable contents and resources. First of all, new, advanced surface, submarine and aircraft platforms have been procured and

²¹ For a report on Egyptian President A-Sisi in Djibouti in May 2021, see: Egyptian, Djiboutian presidents hold talks over ongoing water dispute with Ethiopia, *Arab News*, May 28, 2021.

Yoel Gozhanski and Oded Eran, The Red Sea: An Old-New Area of Interest. *Top View*, Issue 1067, June 12, 2018, INSS The Institute of National Security Studies [Hebrew].

inducted into service for maritime missions, part of which have been carried out in the Red Sea arena, including one of two helicopter carriers built in France (Figure 15). Second, a modern new naval port has been built in Ras-Banas (one of several new ports and naval bases recently built in Egypt, mostly in the Mediterranean) (Figure 16). The new naval port in Ras-Banas (with an area of approximately 600 sq. km) is located 90 km from the border with Sudan. It constitutes a significant addition to the Egyptian Navy, whose main Red Sea base, so far, had been in the more northerly Port of Safaga. The port was built with support from the UAE and was inaugurated in January 2020 by President a-Sisi in the presence of Emirati Crown Prince Mohammed Bin Zayed.²³



Figure 15: Egyptian helicopter carrier



Figure 16: The new port in Ras-Banas

Assuming the relations between Saudi Arabia and Egypt will continue on a cordial note as they are today, one can assume that the Egyptian military might in general, and its naval strength in the Red Sea in particular, will also serve the Saudis, who have important ports and assets along the Red Sea coast. In addition to the friendly relations between the two countries, it should be noted that the Saudis, as well as the United Arab Emirates, contribute much toward the Egyptian economy, including toward its military procurement. Therefore, insofar as Saudi Arabia might need protection of its Economic Waters and its other assets in the Red Sea, it will be able to rely on support from Egypt.

In addition to the Saudi and Egyptian naval force buildup and their implications to the Red Sea arena, the establishment of the Arab Naval Coalition is noteworthy. It is headed by Saudi Arabia, and is intended to prevent Iran from continuing with its weapon shipments to the Houthis, and also to deal with the naval threats posed by the Iranians and the Houthis in the southern Red Sea, with special emphasis on the Straits of Bab el-Mandeb. This naval coalition conducts joint naval exercises with

²³ Yoel Gozhanski, The Red Sea: Embroiled in Conflicting Rivalries. *IDF Website*, September 2020 [Hebrew]; Jeremy Binnie, Egypt inaugurates major Red Sea base complex, *Janes* 16, January 2020.

the regional navies. For example, the Morgan 16 exercise, conducted jointly by the Egyptian and Saudi navies in the Red Sea in January 2020, was intended to practice coping with current and future threats.²⁴

Regarding naval activity in the Red Sea, it should be noted that since 2016, an Iranian special operations ship (espionage/logistics) named *Saviz* had operated opposite the coast of Yemen/Eritrea. This ship belongs to, and apparently was operated by, the Iranian Navy, however due to the support provided through this ship to the Houthis in their war with Saudi Arabia, it is likely that the Revolutionary Guards Naval Force was also involved, or at least coordinated with its operation. In early April 2021 this ship was hit, according to various sources by Israel. In July 2021 an identical "sister" ship, the *Behsad*, took up its position in the region.



Figure 17: The Iranian Saviz spy ship and its location in the Red Sea

Another noteworthy framework is the "Council of Arab and African States Bordering the Red Sea and the Gulf of Aden", which can be relevant concerning the economic assets. It was established as a Saudi initiative in a summit meeting in Riyadh in December 2018 attended by Saudi King Salman Bin Abdelaziz and the Foreign Ministers of Saudi Arabia, Egypt, Yemen, Somalia, Jordan and Djibouti. At the end of the summit, Saudi Foreign Minister Adel al-Jubeir stated that "This is part of an overall effort on the part of the Kingdom to safeguard its interests and those of its neighbors", and promised to expand the economic cooperation between the countries. Since most of them are anyway clients of the Saudi Arabian coffers, the

²⁴ Egypt, Saudi Arabia conduct 'Morgan-16' naval exercise. *Egypt Today*, January 22, 2020.

"Union" will be underwritten by the Kingdom in full.²⁵ Regarding the establishment of the military and economic alliances with the Red Sea states that Saudi Arabia initiated, it is worth reading Dr. Terdiman's updated review: Israel and the Red Sea Basin: Challenges and Opportunities.²⁶

To sum up the regional and global interest in the Red Sea, one can say that the Red Sea is gaining more and more importance in global geopolitics. Considering its importance for global trade and security, increasing geo-economic forecasts, military rivalries and the danger of conflict between central regional and international players. The regional countries as well as the superpowers are making efforts to increase their influence in the Red Sea and Horn of Africa, which analysts Luigi Narbone and Cyril Widdershoven believe might create a new potential conflict. One of the examples of such a conflict is the war in Yemen. They believe the security of the Straits of Bab el-Mandeb is related to resolving the war in Yemen.²⁷

And what about Israel?

Concerning Economic Waters and Exclusive Economic Zones, Israel is not a player in the Red Sea when compared to the assets it has in the Mediterranean. This being said, Israel does have clear interests in whatever happens and is being done in the Red Sea. It is clear that the same challenges and threat profiles which occupy the agendas of the Saudi Arabia, the United Arab Emirates and Egypt should also be of interest to Israel, such as the interest in preserving freedom of navigation in the Straits of Bab el-Mandeb and in the Suez Canal. The shipping lanes to and from Israel via the Red Sea and Suez Canal are significant. So is the potential threat on the part of the Houthis and the Iranians in the southern Red Sea – this is a challenge that must be monitored carefully.

The Red Sea-related military and economic alliances which have been set up under Saudi initiatives in recent years, which also radiate toward East Africa, could serve as a platform for regional cooperation as a complement to the Abraham Accords and the peace treaty with Egypt. Israel should seek recognition of its status in the Red Sea just as it has been recognized as a member of the Mediterranean Gas Forum.

²⁵ Shaul Yanai, The Red Sea Alliance, *Ynet*, January 24, 2019 [Hebrew].

²⁶ Moshe Terdiman, Israel and the Red Sea Basin: Challenges and Opportunities. *Mitvim*, December 2020, pp. 4–5 [Hebrew].

²⁷ Luigi Narbone and Cyril Widdershoven, The Red Sea link: Geo-economic projections, shifting alliances, and the threats to maritime trade flows. *Robert Schuman Center*, European University Institute, July 2021.

This is also the opinion of analysts from the Robert Schuman Center, according to whom a framework of regional security and integration, and inclusion in the "Red Sea Alliance", may from Israel's perspective be influenced by the Abraham Accords.²⁸

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