**Global Developments in the Maritime Domain**

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**Introduction**

As in previous years, the situation evaluation in this report focuses on the Eastern Mediterranean and the Red Sea. However, it is impossible to disconnect the events transpiring in these two arenas from recent global developments, particularly in the maritime domain, due to the close links between global events and their impact on the regions near Israel.

The year 2022 was marked by several notable events and processes that also affected the maritime domain, including:

* The decline of the COVID-19 pandemic, which was accompanied by a sharp rise in demand, causing delays in the global supply chain.
* The military conflict between Russia and Ukraine and its global implications.
* Sanctions and boycotts imposed by the various parties involved in the conflict in Ukraine and their impact on the global economy.
* The strengthening of NATO’s eastern front in response to the Russian invasion.
* Sweden and Finland’s accession to NATO.
* The deterioration of US-China relations.
* The strengthening of balancing strategies against China in the Indo-Pacific region.
* Lack of progress on negotiations regarding Iran’s return to the nuclear agreement and its continued attempts to become a nuclear threshold state.
* Continued conflict between Turkey, Greece, and Cyprus in the Eastern Mediterranean.
* The continuation of the economic and political crisis in Lebanon and its implications.
* The signing of the Maritime Border Delimitation Agreement between Israel and Lebanon, brokered by the United States.
* Unprecedented natural disasters resulting from climate change caused by human activity.

The global security agenda in 2022 was dominated by the war between Russia and Ukraine and the escalating security tensions between China and the United States. Russia’s invasion of Ukraine on February 24, 2022, shocked the international community, especially in light of repeated Russian warnings suggesting the possibility of the use of nuclear weapons in certain extreme cases. The Western response to the Russian invasion focused on providing military aid to Ukraine and imposing economic sanctions against Russia. According to the Stockholm International Peace Research Institute (SIPRI), the consequences of the war will have far-reaching effects, including a severe impact on global food security, as both Russia and Ukraine are major food producers. Significant changes in European security arrangements (NATO) are taking place, which will lead to changes in political systems and national strategies of countries and blocs. The opposition to Russian actions in Ukraine was widespread but not universal, as was expressed by the fact that 35 countries abstained from supporting the UN’s resolution in March 2022 to condemn Russia’s invasion of Ukraine. Some countries challenged the Western narrative regarding the liberal and ethical aspects emphasized during the crisis, especially regarding the Russian invasion and its impact on the civilian population. It should be noted that China, which reaffirmed its close ties with Russia in early February 2022, was among those who abstained from the UN vote.[[1]](#footnote-1)

Following Russia’s invasion of Ukraine, a series of European NATO member countries announced a significant increase in defense expenses. So far, 29 European countries have committed to increasing their defense expenses by a total of over $209 billion – a sum that is likely to increase further. The European Commission announced that investments will be required to replenish low stock levels of military equipment, and Joseph Borrell, the EU’s High Representative for Foreign Affairs and Security Policy, called on the bloc to “spend together, more, and better” on its armed forces.[[2]](#footnote-2)

The relationship between China and Russia has changed in recent decades, from overt animosity during the Cold War to collaboration against the West in current times. Although there is no formal alliance between the two countries, there is an unofficial agreement between them to coordinate diplomatic and economic actions aimed primarily against the United States. This informal alliance is also based on personal ties between the two heads of state, Vladimir Putin and Xi Jinping. President Putin visited President Xi in Beijing in early February 2022 (prior to invading Ukraine) and in a joint statement, the two emphasized that the friendship between their countries knew no borders. The collaboration between them is unconditional and the two expressed a shared aversion to the United States and NATO. Three weeks later, Putin invaded Ukraine. The war in Ukraine, and particularly the declaration of the annexation of the territories it occupied in Ukraine after conducting fabricated “referendums” in them, has created economic and diplomatic dilemmas for China. However, this did not change the fundamental alignment of autocratic interests and values driving the Chinese-Russian relationship. At the same time, the differences in approaches between the two regimes is worth noting: while Russia is willing to destabilize the world order through actions such as the invasion of Ukraine, China prefers to maintain the stability required to protect its economic interests worldwide by cultivating a reputation for being prudent.[[3]](#footnote-3) Both China and Russia view the United States’ support of democracies in their region, and of those fighting against oppression and authoritarianism within China and Russia, as an effort to expand its influence and ultimately overthrow their regimes. Both leaders, Xi and Putin, also consider the network of alliances established and maintained by the United States, such as NATO and the Quad in the Indo-Pacific, as a direct challenge to the security of their countries and regimes. It should be kept in mind that President Xi has already secured his third term as head of the Communist Party. In this context, the backlash against the United States following the visit of then-US House Speaker, Nancy Pelosi, to Taiwan in August 2022 helped Xi distract the Chinese public from other problematic issues in China. However, it seemed that he was not willing to jeopardize his chances of reelection due to a military conflict that might occur due to the Taiwan crisis.[[4]](#footnote-4)

In this context, the issue of human rights is regaining a central position in international relations. The climate crisis is expected to be at the top of the global agenda as the greatest challenge facing humanity in the current era, as a barometer of norms in the international arena, and as a central basis for both cooperation and competition.

Based on the dramatic changes taking place around the world, it is becoming evident that the conventional concepts of the political left and right are losing their meaning and being replaced by a new type of shared ideology. Thus for example, after being elected, US President Joe Biden turned his back on the neoliberal legacy of his predecessors and supported increased government investment in stabilizing and developing the economy, regulation, and taxing giant corporations. So far, his presidency has been characterized by efforts to forge bipartisan alliances across these four areas: clean energy, investing in the working class, a commitment to social justice, and investing in infrastructures. The series of victories he secured in Congress in the summer of 2022 led to a large investment of resources in the fields of climate change, healthcare, transportation infrastructure, and taxation.[[5]](#footnote-5)

**The Battle between Superpowers the Rise of China as a Global Power**

China continues to pursue its goals of becoming a global power, preserving what it sees as its territory, and establishing its importance in regional affairs by building a superpower-class military, which could undermine the stability and norms of international relations. China’s military commitment includes a multi-year agenda of comprehensive military reform initiatives. Combined with the unprecedented expansion of its military, the question arises as to what use will be made of this force, especially in light of China’s increasing aggressiveness in all matters relating to its territorial claims in the South China Sea and Taiwan.

The visit of US House Speaker Nancy Pelosi to Taiwan in early August 2022 raised strong opposition from Beijing and concerns in the United States and throughout the Indo-Pacific region regarding the impact of the visit and the Chinese military’s response on regional security. Following the visit, Beijing launched large-scale military exercises, leading to public discourse on an issue that had already been experienced three times before and therefore became known as the “Fourth Taiwan Strait Crisis.” Both China and the United States tried to control the narrative regarding who caused the crisis. China repeatedly emphasized Pelosi’s high position in the political hierarchy of the United States in an attempt to define her visit as a provocation. Chinese Foreign Minister Wang Yi stated, “The US side claimed that China is escalating the situation, but the basic facts are that the United States first provoked China on the Taiwan question and blatantly violated China’s sovereignty and territorial integrity.”[[6]](#footnote-6) The Biden administration argued that China’s military exercises, including short-range ballistic missile tests over Taiwan, were a “manufactured” crisis and an overreaction to a routine congressional delegation visit. Under Secretary of Defense for Policy, Colin Khal, stated in regard to Pelosi’s trip that “nothing about the visit changed one iota of the US government’s policy toward Taiwan.”[[7]](#footnote-7)

The tension over the Taiwan Strait dominated much of the annual meeting of the Association of Southeast Asian Nations (ASEAN) foreign ministers, as well as the ASEAN Regional Forum in Cambodia, attended by both US Secretary of State Antony Blinken and Chinese Foreign Minister Wang Yi. As expected, ASEAN ministers issued a joint statement expressing concern and calling for dialogue without mentioning China or Taiwan by name. However, this does not mean that individual countries in Southeast Asia are not concerned about China’s aggressive response. The consensus among the elites and a large part of the public in Southeast Asia is that Pelosi’s visit may have been ill-timed or even harmful. However, China’s response was unusual in its intensity, forcing the United States to stand firm and not cancel the visit. Philippine leaders are beginning to realize that they are likely to be involved in any conflict over Taiwan, whether they like it or not. It should be noted that the northernmost islands of the Philippines can be seen from Taiwan, and some of the military exercises declared by China were within the Philippines’ exclusive economic zone. This led the United States and the Philippines to conduct talks for the first time regarding their respective expectations in the event of a Chinese invasion of Taiwan. This is part of a modernization process the alliance is undergoing, which began with last year’s bilateral strategic dialogue and includes ongoing negotiations on new defense guidelines, a comprehensive military information agreement, a new dialogue on maritime security, and other security issues. In early November, Philippine authorities announced their intention to accelerate the implementation of the 2014 Enhanced Defense Cooperation Agreement, which allows American troops to be stationed for extended periods and access local military bases. The Philippine government also announced that it was conducting talks with Washington regarding additional sites to be covered by the Enhanced Defense Cooperation Agreement, including areas near Taiwan and the South China Sea that is in dispute.[[8]](#footnote-8)

China has also expanded its involvement in the Middle East through its “grandiose and flagrant penetration into Saudi Arabia, which has always been defined as American territory.”[[9]](#footnote-9) In early December 2022, the Chinese president visited Saudi Arabia and held a tripartite summit with Saudi Arabia and the leaders of the Gulf countries, as well as a separate and more comprehensive Arab summit. During the visit, President Xi signed a comprehensive strategic agreement between the two countries and agreements worth tens of billions of dollars. This alliance threatens the United States’ dominance that prevailed not only in Saudi Arabia but throughout the Persian Gulf. Although Saudi Arabia presented the agreement as being part of the joint effort to integrate King Salman’s 2030 vision with China’s Belt and Road project, official data shows a growth of more than 380% in the trade volume between the countries between 2016 and 2020, mainly due to a sharp increase in Saudi oil exports to China. In 2021, the total exports amounted to approximately $44 billion.[[10]](#footnote-10)

The Biden administration’s official National Security Strategy (NSS) was published in October 2022. The document outlines the President’s priorities for the crucial decade ahead in regard to addressing global challenges. The most urgent strategic challenge facing the United States stems from regimes that combine authoritarian governance with revisionist foreign policies, referring to Russia and China, which pose a challenge to peace and stability. According to the document, the United States will prioritize maintaining a sustained competitive advantage over China while restraining Russia, which is still considered a dangerous country. Russia is defined as an immediate threat to the free international system because it utterly disregards the fundamental laws of international order, as evidenced by its aggression against Ukraine. China, on the other hand, is defined as the sole competitor that has the intention of reshaping the international order and increasing its economic, diplomatic, military, and technological power in pursuit of this goal. Another significant challenge presented in the document involves dealing with transnational phenomena such as climate change, food insecurity, infectious diseases, terrorism, energy shortages, and inflation. Beyond that, the strategy focuses on local investments to maintain the United States’ competitive advantage, modernizing and strengthening the military, and creating coalitions to deal with the influence of its rivals.[[11]](#footnote-11)

The Biden administration has continued to restore and improve relations with its partners in the European Union and NATO following the damage caused by the Trump administration. The Russian conflict in Ukraine undoubtedly contributed to both sides recognizing the need to strengthen and even expand the alliance. In August 2022, the United States Congress approved the addition of Sweden and Finland as new members of NATO, which involved convincing Turkey to remove its objections to their accession. At the NATO summit of leaders held in Madrid in June 2022, the organization decided to increase its readiness level to 300,000 soldiers in response to the Russian invasion of Ukraine.[[12]](#footnote-12)

At this summit, as part of the comprehensive dialogue held around the Russian invasion, two topics stood out in particular and were at the heart of the summit’s discussions. These were the inclusion of Asia Pacific countries in the discussions and the increased investment in emerging and disruptive technologies (EDTs). NATO adopted the 2022 Strategic Concept document, which reaffirms NATO’s values and objectives.[[13]](#footnote-13) The Strategic Concept document has been updated every ten years since the Cold War to reflect the security environment assessment and provide a roadmap for military and diplomatic development. Among the changes made this year, it was necessary to clarify how NATO countries operate and invest in their long-term goals to diversify their partnerships and expand their military toolkit, while ensuring a proper foreign relations system with China and reducing dependence on the United States.[[14]](#footnote-14) The strategic document identifies Russia as the “most significant and direct threat” and China as a “systemic challenge.” There is a shared understanding among NATO member states that Russia cannot be dealt with in isolation from China. China has expanded its military support for Russia, created dependency in the global supply chain, and exerted regional dominance by increasing military exercises. NATO members declare that they will continue to work toward just, inclusive, and sustainable peace, and remain a stronghold for a rules-based international order. The document highlights the deterioration in the international relations system and the uncertainty this creates. It points out that the Russian Federation’s aggression against Ukraine has shattered the peace and seriously altered the global security environment. The organization emphasizes that a strong and independent Ukraine is vital to the stability of the Euro-Atlantic region and notes the need to continue to address the ongoing threat of terrorism in all its forms and expressions. Increasing instability, strategic competition, and progressive authoritarianism challenge the interests and values of the organization, and therefore it sees it as its obligation to cooperate in the Indo-Pacific region through agreements and alliances such as the ones between the United States, Britain, and Australia (AUKUS and the Quad).[[15]](#footnote-15)

NATO’s main missions according to the Strategic Concept document are:
Defense and deterrence.
Crisis prevention and management.
Cooperative Security[[16]](#footnote-16)

The Quadrilateral Security Dialogue (Quad), which includes the United States, Australia, India, and Japan, was established following the 2004 tsunami in the Indian Ocean and is not a formal alliance. In 2021, the group strengthened its ties due to the increased shared concern of the leaders of the four countries regarding China’s assertive behavior in the region, leading them to propose a constructive framework for cooperation. It should be noted that the countries of the Pacific are currently at the center of a continuing geopolitical battle between the United States and China. The Indo-Pacific region spans two oceans and several continents, making it important to United States’ maritime interests. Economically, the Indo-Pacific region is a center of global trade and commerce, making it a potential area for economic growth for the countries in the region, where 65% of the world’s population, 63% of the global GDP, and 46% of the world’s trade in goods are located.

In February 2022, the White House published the United States’ Indo-Pacific Strategy document, which opened with a quote from President Biden: “The future of each of our nations - and indeed the world - depends on a free and open Indo-Pacific enduring and flourishing in the decades ahead.”[[17]](#footnote-17)

The document states that the future of the region depends on the actions we take today, and that the crucial decade ahead will determine whether the region’s countries can cope with and address expected climate changes, among other things. In addition, the region’s countries need to examine how the region is recovering from the coronavirus pandemic, which is a once-in-a-century occurrence, and decide whether they can uphold democratic principles of mutual respect, openness, and transparency. The United States expressed hope that together with its partners in the region it will be able to strengthen and prepare it for the challenges of the 21st century, while taking advantage of opportunities to make the Indo-Pacific region prosperous and strong and able to contribute to the well-being of all the world’s countries.

The document focuses on the following topics:
Promoting a free and open Indo-Pacific
Building connections within and beyond the region
Driving Indo-Pacific prosperity
Bolstering Indo-Pacific security
Building regional resilience against transnational threats expected in the 21st century

On his first trip to the region since taking office on May 24, 2022, President Biden met with the leaders of the Quad in Tokyo, which was in fact the first personal meeting between the group’s leaders since the war in Ukraine began. The latest security agreement between China and the Solomon Islands was also on the agenda, as well as trade, technology, and climate change. At the end of the meeting, the four countries presented a maritime initiative to combat illegal fishing and pledged to invest over $50 billion in infrastructure development in the Indo-Pacific region as part of their aim of dealing with China’s increasing influence in the area. The leaders of the countries noted in their joint statement that they “commit to work tirelessly to deliver tangible results to the region.”[[18]](#footnote-18) It should be emphasized that the Russian invasion of Ukraine jeopardized the group’s unified front, as India, which has close ties to the Russian Federation, opposed the other partners’ calls to condemn the war.[[19]](#footnote-19) China reacted to the meeting by describing the group as an “Asian NATO,” although the four countries did not sign a mutual defense agreement and only deepened their military, economic, and diplomatic ties. However, China’s increasing influence in the small scattered island countries of the Pacific Ocean continues to raise concerns for the United States: a tracking of Chinese activity reveals that Chinese actors are operating slowly and often quietly in these countries and attempting to increase their dependence on China through funding infrastructure projects and diplomatic persuasion of influential actors in these countries. The leakage of an economic and security agreement exposed China’s intentions of signing ten Pacific Island countries onto a deal that could fundamentally shift the balance of power in a region that comprises almost a third of the world. Chinese Foreign Minister Wang Yi embarked on an unprecedented and unannounced trip between May 26 and June 4, visiting eight countries throughout the Pacific Ocean to offer economic assistance packages that would dramatically expand China’s security influence in the region. Wang landed in the Solomon Islands, then went on to Kiribati and Samoa, and later to Fiji, Nauru, Tonga, Papua New Guinea, and Timor-Leste. This visit took place despite the ongoing COVID-19 pandemic that is still raging in some islands due to dysfunctional healthcare systems, and therefore they are still closed to visitors.[[20]](#footnote-20)

In regard to the Eastern Mediterranean, during his visit to Israel and Saudi Arabia in July 2022 and in his meeting with the Gulf leaders in Saudi Arabia, President Biden stated that the United States’ commitment to the Middle East is based on five principles: partnership, deterrence, diplomacy, integration, and values. Partnership: the United States will support and strengthen partnerships with countries that have signed onto the rules-based international order and ensure that these countries can defend themselves against external threats. Deterrence: the United States will not allow foreign or regional powers to endanger the freedom of navigation through the waterways of the Middle East, including the Hormuz and Bab el-Mandab Straits, and will not tolerate any country’s efforts to control another or the region through the deployment of military forces, invasions, or threats. Diplomacy: the United States will not only aim to deter threats to regional stability, but will also work to reduce tensions and resolve conflicts wherever possible through diplomacy. Integration: the United States will build political, economic, and security relationships with its partners wherever possible, while respecting the sovereignty and independent choices of each country. Values: the United States will always advance human rights and the values enshrined in the UN Charter.[[21]](#footnote-21)

After prolonged negotiations between Israel and Lebanon, mediated by the United States, an agreement was reached regarding the demarcation of the maritime border. The maritime agreement primarily focuses on establishing the status quo of the existing maritime boundary near the coast (the “buoy line”), setting a permanent maritime border between Israel and Lebanon from the end of the buoy line to the edge of the economic waters, acknowledging that the agreement is final and fair and marks the end of the conflict over the disputed maritime area, and regulating the development of the cross-border reservoir in the disputed maritime area. The agreement is expected to enable Lebanon to have the supply of gas negotiated in recent months completed, from Egypt via Jordan and Syria to Lebanon, thereby easing the severe crisis in the country regarding electricity supply. In addition, in the short to medium term, Lebanon will probably seek to leverage the agreement in order to join the energy market by exploring the potential energy reserves in the depths of the sea in the Kanah field. For Israel, the agreement removes doubts concerning the development of the Karish field due to the risk of potential instability or escalation, and it may also benefit from the wells found in the Lebanese Kanah gas field, which is shared by both countries.

On the two-year anniversary of the Abraham Accords, which normalized diplomatic relations between Israel, the United Arab Emirates, Bahrain, and Morocco, and raised hopes that have not yet materialized regarding Sudan, new opportunities for security cooperation have emerged, especially between Israel, Bahrain, and the UAE, who share a similar perspective on the security threat Iran poses to the Middle East. The Negev Forum, which convened in Be’er Sheva in the spring of 2022, included Egypt in the Abraham Accords coalition and suggested additional options for cooperation on shared interests, including energy, food and water security, healthcare, and other issues. However, cooperation between Israel and its Arab partners has not succeeded in advancing the relationship between Israel and the Palestinians, despite the fact that the Negev Forum’s agenda included steps to improve the Palestinians’ living conditions. The Abraham Accords have not yet succeeded in adding new members, and despite some softening in Saudi Arabia’s position in the bilateral relations, including in the field of security cooperation and opening its airspace to Israeli flights, it remains committed to the existing 2002 Arab Peace Initiative (API) and maintains that the normalization of relations with Israel will come at the end of the process, not at the beginning. Also Gulf countries such as Oman and Qatar that had (and who still may have) unofficial relations with Israel have so far refused to turn them into full diplomatic relations. On the two-year anniversary of the Abraham Accords, normalization has opened the door for private sector entities, especially in the UAE, who were in a convenient position to expand and take advantage of the bilateral trade and commerce opportunities that arose as a result. However, the agreements have not yet succeeded in changing the attitudes of Arab populations towards Israel. Apart from Morocco, where surveys indicate that only 11% of the population see Israel as a threat, the Arab public generally continues to view Israel in a negative light, primarily due to its recent failure to resolve the Palestinian issue. This issue undoubtedly causes decision-makers in other Arab capitals, especially Riyadh, to hesitate to advance normalization. In light of this, the risk is that the lack of progress on the Palestinian front will ultimately lead to the Abraham Accords being seen as just another cold peace.[[22]](#footnote-22)

As a reminder, in 2017 the island of Tiran was transferred/returned from Egypt to Saudi Arabia. The Tiran Straits, located west of the island, have a long history related to Israel’s freedom of navigation to and from Eilat: Egypt’s blocking of the Tiran Straits before the Sinai War in 1956 through the deployment of coastal artillery at Ras Nasrani was one of the main causes for the outbreak of the war. In May 1967, Egypt blocked the passage through the Tiran Straits, which was the main factor leading to the outbreak of the Six-Day War. During his visit to Israel and Saudi Arabia in mid-July 2022, US President Joe Biden announced that the Multinational Force and Observers (MFO), which oversees the implementation of the peace agreement between Israel and Egypt reached in 1979 through US mediation and which is intended to ensure freedom of navigation in the Tiran Straits, will end its mission, and that the area will be monitored by optical means. This may be part of what Israel agreed to give the Saudis in exchange for advancing the relationship between the countries.

A study conducted by the Center for Maritime Policy and Strategy Research at the University of Haifa presents the factual background regarding the transfer of the island from Saudi Arabia to Egypt and back and discusses the challenges facing the region in terms of maritime law in light of the transition from an agreed legal status (Israel-Egypt) to an legal status that was not agreed upon (Israel-Saudi Arabia). The author of the article notes that in light of history and maritime law, the future may hold challenges related to freedom of navigation in the Tiran Straits.[[23]](#footnote-23)

On the other hand, in the field of security in the Red Sea region, the Saudis have shown willingness to work with Israel. They agreed to allow Israeli civilian flights to pass over the Kingdom’s territory on flights to and from the East and approved direct travel of pilgrims from Israel to Mecca. Both moves reflect a more accepting Saudi stance toward cooperation with Israel. It should be noted that Israeli policymakers may also consider developing relations with Saudi Arabia outside the framework of the Abraham Accords.

In contrast, Iran sees itself committed to the fight against the United States and its regional allies and assumes that they are seeking to reduce its geopolitical influence in the Middle East and are trying to change the regime in Tehran. Iran’s actions reflect its perception regarding the hostile attitude of the United States, Israel, and Gulf states. It will continue to project power through its security apparatus (including the Iranian Revolutionary Guard Corps) and proxy forces, seeking to extract diplomatic and economic concessions from the international community. As for US interests, Iran’s willingness to conduct attacks depends largely on its perception of the United States’ readiness to respond, the latter’s ability to carry out attacks without them leading to direct conflict, and the likelihood that carrying out attacks will jeopardize the easing of US sanctions in the future. The leaders of President Raisi’s new regime have toughened their stance and continue the policy of “walking the brink” in regard to the negotiations on the Joint Comprehensive Plan of Action (JCPOA). Iran is determined to continue maintaining its influence in Syria as part of its strategy to expand its regional influence, for example in Lebanon and through Hezbollah, which will threaten Israel. Iran will take advantage of the ongoing economic crisis in Lebanon and try to use civilian aid (including fuel supply) through Hezbollah to prevent the Lebanese government from seeking assistance from the West. It will continue its ongoing support for the Houthis in Yemen, as Tehran’s support for the Houthis, including the supply of missiles and unmanned systems, poses a threat to US partners and interests, especially through attacks on Saudi Arabia. Iran will continue to threaten Israel, both directly through its missile forces and indirectly by supporting Hezbollah and other terrorist organizations.

The Biden administration has not developed a consistent policy toward Turkey, despite the fact that several complex situations in the region affect Turkey’s relations with the United States and other key players, as Turkey is seeking a more independent foreign policy. These include Russia’s invasion of Ukraine in 2022, the Syrian civil war (which resulted in over 3.6 million refugees fleeing to Turkey), and other challenges related to Greece, Cyprus, and Libya. Since 2021, Turkey has worked to reduce tensions and increase trade with Israel (including upgrading diplomatic relations to an ambassadorial level), the UAE and Saudi Arabia. There is no clear definition of US diplomatic goals regarding Libya and there are no policy goals regarding Syria’s reconstruction. Turkey is publicly discussing a new military operation in Syria aimed at removing Syrian Kurds affiliated with the PKK from areas near its border, however concerns from the United States and Russia may affect if and how such an operation takes place.

There are concerns among NATO members in light of rising tensions in security relations between Turkey and Greece, as evidenced by a number of incidents between the two countries’ air forces, which occurred while NATO was trying to focus on presenting a united front against Russia in light of its invasion of Ukraine. Experts are worried that if the tension escalates into hostile actions, Russian President Vladimir Putin may exploit it. Both Turkey and Greece are heading into crucial elections next year, with Turkish President Recep Tayyip Erdogan facing a significant challenge to his 20-year rule due to economic difficulties and immigration issues, while Greek Prime Minister Kyriakos Mitsotakis, who was elected in 2019, is suffering some loss of popularity due to rising energy prices resulting from the war in Ukraine. It is likely that Ankara will continue its two-pronged approach to Turkey’s conflicts in the Mediterranean, attempting to strike a balance between “arm twisting” with diplomacy.

In summary, the Eastern Mediterranean region requires a new political order. Without a strong, coherent, and coordinated policy on the part of the European Union and NATO, relations in the Eastern Mediterranean are likely to become even more volatile. However, political solutions to the maritime border dispute between Greece and Turkey, the Cyprus issue, and the conflict in Libya, based on the rule of law and the existing political reality, have the potential to positively impact the entire region in the present, reboot EU–Turkey relations, and build future cooperation between the European Union, the Eastern Mediterranean countries, and North Africa (MENA).

**The Red Sea, Arabian Sea, and Persian Gulf Region**

The Red Sea, the Gulf of Aden, and the Persian Gulf were at the center of international tensions in 2022. The tense atmosphere between Iran and the Gulf states has always been a contributing factor to regional instability. However, since the United States withdrew from the JCPOA in 2018 during the Trump administration, covert wars between Israel and Iran and between the United States and Iran, which had previously taken place on land and in the air, have shifted to the waters of the Persian Gulf, the Gulf of Oman, and the southern Red Sea. In addition to the main rivalries mentioned, this campaign should also be seen as part of the battle between the Shiite bloc led by Iran and the Sunni states in the Middle East and the countries belonging to the Gulf Cooperation Council (GCC).

The Red Sea itself is rife with regional and international geopolitical barriers, especially at its chokepoints. The Hormuz Straits were and remain threaten by Iran’s proximity. The war in Yemen and Iran’s support for the Houthi rebels has subjected the Red Sea, and particularly its southern part, to geostrategic and geopolitical threats similar to those in the Persian Gulf. In recent years, the eastern and western shores of the Red Sea have become a shared political and security arena, where both regional powers and countries in the area have significant interests, especially regarding free trade conducted through the Red Sea and the Gulf of Aden, valued at approximately $700 billion annually. The impacts and implications of the Suez Canal being blocked for six days in March 2021 by the Ever Given container ship have revealed the strategic centrality of the Red Sea as a transit route for oil and global trade.[[24]](#footnote-24) From a geopolitical perspective, there are multiple national interests involved in this region, forming the foundation for the close relationship between its two coasts: the Arabian Peninsula and the Horn of Africa. The increased number of ports and new military facilities in the coastal areas of Sudan, Eritrea, Djibouti, and Somalia emphasizes the crucial relevance of East African countries to Gulf States, as well as to other external powers involved in the region such as Russia, Turkey, and China. At the same time, African countries are leveraging their strategic position to attract investments, thereby enabling powers to strengthen their grip on the region.

The western coast of the Red Sea and the Horn of Africa have also become a focal point for geopolitical changes: the UAE and Saudi Arabia’s ambition on one hand and Turkey and Qatar’s on the other, to gain control of the Horn of Africa has led to instability and insecurity in an already volatile region known for its lack of governability. The competition between Egypt, Sudan, and Ethiopia over the use of the Nile remains unresolved and can potentially cause future conflicts between these countries. Severe armed conflicts persist in Somalia, South Sudan, Sudan, and Yemen, involving countries on both sides of the Red Sea. This rivalry between Middle Eastern players raises the strategic rivalry between the United States and China and Russia to the top of the national security agenda.[[25]](#footnote-25)

**The COVID-19 Pandemic and Its Impact on the International System**

The outbreak of the coronavirus pandemic in late 2019 created a sense of vulnerability and to a certain extent helplessness around the world, rapidly and intensely changing daily routines and affecting all aspects of life. The impacts of the pandemic extend far beyond global health and affect the economic, political, and security spheres. COVID-19 is likely to remain a threat to populations worldwide until vaccines and effective treatments are widely disseminated across all sectors of the global population. The economic and political ramifications of the pandemic will continue to emerge for many years to come.

**The Global Economy**

According to the Global Economic Prospects report issued by the World Bank, following the impact of the COVID-19 pandemic the Russian invasion of Ukraine has deepened the slowdown in the global economy, which is entering what could become a prolonged period of weak growth and high inflation. This raises the risk of stagflation, with potentially damaging consequences for economies with low to medium income. Global growth is expected to decline from 5.7% in 2021 to 2.9% in 2022 - significantly lower than the 4.1% forecast made in January 2022. This is expected to be the case during 2023-2024, as the war in Ukraine disrupts activity, investment, and trade in the near term, pent-up demand fades, and fiscal and monetary policy accommodation is withdrawn. As a result of the pandemic and the war, income levels in developing economies will be nearly 5% lower this year than the pre-pandemic trend.[[26]](#footnote-26)

Some claim the COVID-19 outbreak had only temporary effects on the global economy and that globalization will renew once it subsides. However, recent research has produced other data indicating that the pandemic will have significant long-term effects on globalization. These conclusions are based on three observations. First, the pandemic increased inequality between and within countries and reversed trends in poverty reduction, which will increase anti-globalization sentiment in the future. Second, the pandemic has fueled populism, nationalism, and a return of state intervention in the economy, which has paved the way for an increase in protectionism. Third, governmental responses to the COVID-19 crisis have undermined the international institutions that have so far facilitated globalization. These forces have led to growing global uncertainty and higher transaction costs in international business. Research suggests that the reconfiguration of global value chains will result in a less global and more regionally fragmented global economy.[[27]](#footnote-27)

However, the results of a survey conducted in March 2022 by McKinsey indicate that geopolitical instability remains the most cited threat to the global economy, and runaway inflation has overtaken volatile energy prices to become the second most cited concern. Supply chain disruptions is the third leading risk, followed by fluctuating energy prices and rising interest rates (see Figure 1). Overall, the level of pessimism regarding the second half of 2022 is on par with the first months of the COVID-19 pandemic in 2020, with more than half of those surveyed predicting that global economic conditions will worsen in the coming months.[[28]](#footnote-28)

**Figure 1:** Disruptions in the supply chain - the three leading risks

The report also offers new insights regarding the impact of the war on energy markets, which also casts a shadow on the global growth forecast. The war in Ukraine has led to an increase in prices of a wide range of energy-related commodities. Higher energy prices are expected to continue to lower real income, increase production costs, worsen financial conditions, and limit macroeconomic policies, especially in energy-importing countries.

**Global Trade**

***The Global Supply Chain***

The COVID-19 pandemic has affected every part of the value chain, from the purchase of raw materials to the end customer. It has challenged the commercial, operational, financial, and organizational resilience of most companies around the world, highlighting risks and vulnerabilities for many organizations. The pandemic has impacted or led to:

• Logistic disruptions

• Production delays

• Overreliance on a limited number of third parties

• Doubling down on technology investment

• Commodity pricing

• Workforce and labor[[29]](#footnote-29)

The supply chain challenges anticipated for 2023 include:

*Material shortages:* This is due to a sudden and abnormal surge in consumer demand coinciding with the highly limited availability of many parts and materials. A recent survey conducted by the Institute for Supply Management (ISM) revealed long lead times, wide-spread shortages of critical basic materials, rising commodity prices, and difficulties in transporting products between industries.

*A rise in shipping costs:* The need for shipping containers increased significantly during the pandemic. This led to a greater demand for imported raw materials and consumer goods (a large percentage of which are transported in shipping containers), which was met with inadequate shipping capacity and an unprecedented shortage of empty or available containers. The shortage caused a significant increase in shipping costs, and in 2022 for example, shipping costs from China to the West Coast of the United States skyrocketed by 240%.

*Difficulty with predicting demand:* The COVID-19 pandemic has undermined the forecasts of countless retailers and suppliers of consumer products and services, making it impossible for them to estimate the amount of inventory they should hold or manufacture at any given time.

*Port congestion:* The congestion caused by the pandemic remains one of the leading challenges for supply chains worldwide. While the loading/unloading process generally follows a plan, a shortage of manpower and social distancing due to the pandemic created major bottlenecks in several busy global ports, causing companies to be unable to deliver their goods on time. This also affects distributors and logistics providers who are unable to meet their delivery commitments.

*A shift in consumer behavior:* Consumer behavior has changed significantly during the pandemic, including demands for shorter delivery times and increasing demand for a positive customer experience.[[30]](#footnote-30)

The pandemic brought e-commerce demand to an all-time high. While an increase in order volume was an advantage for traders, new infrastructure needs and disruptions in the supply chain were major concerns.

The problems caused by the pandemic and its impact on the global supply chain were exacerbated by the war between Russia and Ukraine, which broke out in February 2022. Understanding Russia’s trade specialization is crucial in assessing the potential implications of war-related disruptions on global supply chains and their geographic aspect. Russia’s exports of oil, gas, and coal account for 15% of the global export of these commodities and the European Union is its largest importer, as well as the region with the highest dependence on imports from Russia. This explains the supply pressures arising in the natural resource sector. In addition to energy commodities, Russia is also a key exporter of raw materials, including those classified as critical by the European Commission (2020) due to their economic importance and high supply risks (see Figure 2). For example, Russia exports materials used to produce fertilizers, primarily potash, a field in which it has a dominant position, as well as rock phosphate and sulfur. In terms of critical raw materials, Russia is a major exporter of palladium, vanadium, and cobalt, which are mainly used in the production of 3D printers, drones, robotics industries, batteries, and semiconductors, thereby affecting other sectors too, such as electronic appliances, transportation, and most prominently the car sector. Russia is also the fourth largest producer of coking coal, used for steel production, where it also enjoys a dominant market position, while Ukraine is one of the largest exporters of iron ore, which is used in iron and steel industries.[[31]](#footnote-31)

The war also created a severe food shortage, mainly in Africa in low-income countries. This is because Ukraine and Russia produce about a third of the world’s wheat and a quarter of its barley, not to mention about 75% of the sunflower oil supply - all critical goods for maintaining human nutrition. The combination of sanctions imposed on Russia, the blocked Ukrainian ports, the closure of the Turkish straits, and the inability of Ukrainian farmers to work their fields, created global turmoil and a humanitarian crisis.

**Figure 2:** Russia’s participation in global value chains across sectors by modes (percentage share of total export, 2020)[[32]](#footnote-32)

**Figure 3:** Russia and Ukraine’s trade with three global economies (Source: UNCTAD)[[33]](#footnote-33)

On July 22, 2022, the Russian Defense Minister and the Ukrainian Infrastructure Minister signed an agreement allowing the opening of Ukrainian ports on the Black Sea for wheat and fertilizer exports. The agreement, which was mediated by Turkey and underwritten by the UN, could impact the global food market, particularly benefiting developing countries in Africa and Asia that cannot afford the high wheat prices caused by the war in Ukraine. Under the agreement, Ukraine will export produce from three main ports, including the port of Odessa. The UN established a coordination center staffed by officials from the organization, Turkey, Russia, and Ukraine, whose role is to oversee the implementation of the agreement. The agreement stipulates that Turkey and UN monitors will inspect ships entering the port of Odessa to load wheat to ensure that they are not bringing Western weapons to Ukraine, while the Russians commit to not using the passageways in the maritime minefields cleared by Ukraine to bring in landing ships and land troops on Ukrainian ports. The first ship loaded with wheat left the port of Odessa in early August 2022 and 16 more ships were waiting to be loaded with wheat.[[34]](#footnote-34)

The transportation arteries connecting China with Europe have also been affected by the Russian invasion. The rise in gas prices increases transportation costs across all modes of transportation. The railway route connecting the regions, which became highly competitive during the peak of the pandemic, especially for industries that value shorter delivery times such as the automobile and electronics industries, is now jammed. This is particularly true for the main corridor that crosses Russia, Belarus, and Poland before continuing to Germany, France, and other countries in Europe.

**Figure 4:** Supply chain pressure indicator in global manufacturing.
Latest observation: April 2022. Source: IHS Markit Ltd.

The value of global trade increased during the first quarter of 2022, although its growth continued to slow. Overall, the value of global trade reached a record level of around $7.7 trillion in the first quarter of 2022, an increase of about $1 trillion compared to the first quarter of 2021 and an increase of about $250 million compared to the fourth quarter of 2021. Both trade in goods and trade in services grew during the first quarter of 2022: trade in goods reached around $6.1 trillion (an increase of about 25% compared to the first quarter of 2021 and an increase of about 3.6% compared to the fourth quarter of 2021), while trade in services amounted to about $1.6 trillion (an increase of about 22% compared to the first quarter of 2021 and an increase of about 1.7% compared to the fourth quarter of 2021). Trade growth is expected to remain positive but continue to slow during the second quarter of 2022.[[35]](#footnote-35) The value of global trade grew due to rising commodity prices, while trade volume grew much more moderately (see Figure 5).

**Figure 5:** The impact of rising commodity prices on international trade (Source: UNCTADStat)[[36]](#footnote-36)

The organization predicts a worsening of the geopolitical situation and continued friction that could negatively impact global trade at the end of the second half of 2022.

**Figure 6:** Growth in trade across all regions (at a lower rate in East Asia and the Pacific regions)[[37]](#footnote-37)

***China’s Trade Balance***

China’s trade surplus unexpectedly declined to $79.39 billion in August 2022 from $59.13 billion in the same month last year, well below market expectations of $92.7 billion. The drop was due to a more moderate increase in exports amid disruptions to production output caused by new COVID-related restraints and historic heat waves, while foreign demand weakened as inflation rose in many countries (see Figure 7). Shipments grew by 7.1% compared to the previous year, marking the slowest growth in shipments and the first single-digit growth since April, and below the market estimate of 12.8%. Imports grew by 0.3%, marking the slowest growth in incoming shipments since the standstill in April - also weaker than the expected growth of 1.1%. In the period between January and August 2022, China’s trade surplus stood at $560.52 billion, with exports growing by 13.5% while imports grew by 4.6% compared to the previous year. The trade surplus with the United States shrank to $36.77 billion in August from $41.5 billion in July.[[38]](#footnote-38)

**Figure 7:** China’s trade balance in the first half of 2022
Source: Tradingeconomics.com General Administration of Customs

***Demand for Oil and the State of the Tanker Fleet***

European importers avoided crude oil sent from Russia in response to the invasion of Ukraine. This caused Russia to divert its oil exports toward Asia, mainly India and China. Assuming Europe will completely avoid Russian oil flows at a certain stage, this will affect the average monthly flows of 55 million barrels (around 1.8 million barrels per day) or up to 85 million barrels (2.8 million barrels per day) including oil from Kazakhstan.[[39]](#footnote-39)

As India has already increased the volumes it imports from Russia to over 900,000 barrels per day (compared to only about 30,000 barrels per day in 2021), it is highly likely that the country will be able to import 30 million barrels of crude oil from Russia every month (or around 1 million barrels per day). Meanwhile, China may increase its imports from Russia (primarily through additional shipments from Russia’s European ports) by 15 million barrels per month compared to last year’s activity, which is equivalent to an increase of half a million barrels per day.

This scenario will increase global demand for crude oil tankers by 3.5% (1.8% related to India and 1.7% driven by additional flows to China). A more optimistic scenario, in which India increases its flow from Russia to 45 million barrels per month, or 1.5 million barrels per day, and China to 25 million barrels per month, or 830,000 barrels per day, will cause global demand for crude oil tankers to rise by 5.6% (2.8% related to India and 2.8% to China). A factor that could affect the market is the possibility of a ban imposed both by Britain and the European Union on insuring Russian fuel-carrying vessels worldwide, which could significantly affect the global shipping industry.[[40]](#footnote-40) This ban, which will come into effect six months after the ban on oil transportation, could cause severe pressure against Russian oil exports from the Black and Baltic Seas, which could lead to a drop in exports by up to one million barrels per day. Without insurance, buyers will not agree to have the oil transported by sea unless governments establish mechanisms to cover local insurance, as was done in the past for fuel shipments from Iran.

The alternative observed so far, with Russia sending oil primarily to China and India, involves Russia having to rely on a tonnage estimate done under local control or ownership. According to estimates, replacing Russian oil shipments sent to China and India instead of Europe requires an additional 30 80,000-100,000 deadweight ton (DWT) Aframaxes tankers, 50 tankers capable of passing through the Suez Canal (Sueznaxes), and more than 40 VLCCs (see Figure 8).

**Figure 8:** Vessels for transporting fuel and distillates (Source: Eia)

It is important to note that the market for liquefied natural gas (LNG) transported by sea has grown significantly in 2022 in response to disruptions in pipeline gas supply. For the first time in history, this year at least half of Europe’s natural gas consumption was imported by ships.

***Chokepoints***

Chokepoints are strategic and narrow passages that connect two larger regions. When it comes to maritime trade, these are usually straits or channels through which high traffic volumes pass due to their optimal location. There are currently eight major chokepoints, These include the Panama Canal, the Suez Canal, the Hormuz Strait, the Bab el-Mandeb Strait, the Malacca Strait, the Dover Strait, the Gibraltar Strait, and the Turkish Straits (Bosporus and Dardanelles). These vital chokepoints pose a number of risks for ships that pass through them, including:

*Structural risks:* For example when the Ever Given ship blocked the Suez Canal for six days in March 2021; ship grounding along the canal’s coast if the passage is too narrow, causing traffic jams that can last for days.

*Geopolitical risks:* Due to their high traffic volume, chokepoints are particularly vulnerable to deliberate blockades or disruptions during periods of political unrest. An example of this was when Turkey closed the Bosporus and Dardanelles during the conflict between Russia and Ukraine in the spring of 2022.

Figure 9 depicts the risks associated with transit through the eight main chokepoints, divided into the categories of environmental risks, security risks, and administrative risks.[[41]](#footnote-41) The type and level of risk vary depending on the location of the chokepoints and the existence of alternative routes.

**Figure 9:** Risks to global trade at chokepoints[[42]](#footnote-42)

The blockage of the Suez Canal in March 2021 by the giant cargo ship Ever Given due to an environmental risk (a weather event) exposed chokepoint vulnerabilities and their impact on global trade. Another reminder of this was when the crude oil tanker Affinity V, sailing under the flag of Singapore, ran aground in late August 2022 at the same location where the Ever Given cargo ship had grounded in March 2021. Fortunately, the tanker was refloated after five hours, but as mentioned, this served as a reminder of the vulnerabilities of chokepoints through which the majority of global trade is transported.[[43]](#footnote-43)

Another incident occurred at a different chokepoint. In July 2019, the British-flagged tanker Stena Impero unknowingly strayed and entered Iran’s territorial waters while crossing the Hormuz Strait (presumably due to a security risk involving the disruption of its navigation system). The incident serves to demonstrate the vulnerability of the GPS navigation system to disruption and manipulation. GPS blocking is already within the reach of some countries, through jamming or spoofing. While military GPS signals are encrypted and harder to access and manipulate, this is not the case in the civilian/commercial domain. It should also be noted that the civilian GPS technology available today can be used to attack military assets indirectly. Maritime analysts suggested that the Iranian Revolutionary Guards’ navy faked the Stena Impero’s GPS signals in revenge against Britain for holding an Iranian tanker suspected of delivering oil to Syria.[[44]](#footnote-44) In the future, such incidents may become increasingly common.

The Ever Given incident that completely blocked maritime traffic in the Suez Canal for more than six days and led to an estimated daily loss of $9.6 billion in trade was attributed to a combination of environmental factors such as strong winds and human navigation errors by the bridge team. While this event was not a deliberate or malicious attack, maritime cyber experts recommend preparing for the possibility that adversaries with malicious intent may create similar incidents through cyberattacks or by disrupting navigation equipment at any one of the chokepoints or other narrow waterways.

Israel relies on three main chokepoints: the Suez Canal and the Bab el-Mandeb Strait for trade with the East, which accounts for a quarter of Israel’s total trade, and the Turkish Straits (the Bosporus and Dardanelles) through which it imports most of its wheat from the Black Sea Basin, which is expected to reach 1.74 million metric tons (MMT) in 2022.[[45]](#footnote-45)

***Protection of Underwater Infrastructures***

The war between Russia and Ukraine illustrates the importance of defending critical infrastructure from attacks. Technical dependence, risks to the supply chain, and damage to critical infrastructure create opportunities for unwanted foreign intervention. Current geopolitical struggles for power are increasing in the technological and digital domains and different countries and technology companies are advancing toward achieving technological superiority and control of the global cyberspace.

Underwater fiber optic cable networks carry around 95% of international communication traffic and data. They are vital to the digital revolution in regard to expanding computing power and advancing artificial intelligence. Most of the world’s internet traffic is transmitted through underwater cables spread out along thousands of kilometers of the ocean floor. The growth of this infrastructure is driven by a huge demand for data, cloud-based services, next-generation networks, and the need to adapt to the growing “Internet of Things.” Accordingly, there has been rapid growth in the deployment of underwater cables around the world in recent years. Hundreds of these cables, operated by various government and private entities, support a broad range of fields, from data and cellular network traffic to bandwidth-intensive applications such as video sharing, consumer shopping, and government communication. Therefore, underwater cables are the critical and core infrastructure in the digital age and can also affect geopolitical aspects that are currently still being ignored.[[46]](#footnote-46)

As a result, the resilience and security of underwater cables are vital for securing global governance and order now and in the future. They involve key geopolitical issues, ranging from connectivity, security, and regulation to narrow technical problems. Most of these cables are not owned by governments and are operated by separate consortiums of private companies or entities, with almost no international agency or intergovernmental system governing them.

In light of the threat assessment mentioned above and the fact that this threat was realized when the gas pipelines in the Baltic Sea were attacked in late September 2022, leading to a leak in the Nord Stream gas pipelines from Russia to Europe, British Defense Secretary Ben Wallace announced that Britain would procure two ships and convert them to protect underwater infrastructure such as communication cables and gas pipelines.[[47]](#footnote-47) The Italian navy also announced that it would take steps to bolster the protection of gas pipelines passing through the Mediterranean following suspicions of sabotage in the Nord Stream system. According to a plan developed by Defense Minister Lorenzo Guerini, the Italian navy will operate remote-controlled submarines to monitor key areas in the Mediterranean, particularly around the infrastructure used to transport gas from North Africa to Europe. Norway, which supplies gas to European countries such as Poland, has also increased its readiness regarding electronic communication, specifically focusing on underwater communication cables. In the spring of 2022, a data cable connecting the Arctic islands of Svalbard to the Norwegian mainland was damaged and official sources concluded that “human actions” caused the underwater cable to tear.

In the near future it will be necessary to expand the concept of maritime domain awareness to include underwater infrastructure and ways to maintain and protect it effectively.

**Climate Change and Its Impact on the Environment**

It is currently estimated that the impacts of climate change and continued environmental damage will create a combination of direct and indirect threats in the near future and beyond, including risks to the economy, political instability, increased numbers of refugees and displaced people, and new sources of geopolitical competition in the near future and beyond. Scientists warn that rising temperatures in the atmosphere, on land, and in the sea will create more frequent and variable extreme weather events compared to those of today, including heat waves, droughts, and floods that will directly threaten the interests of countries such as the United States if they are unable to cope with these conditions. The decline in the quality and depletion of soil, water, and biological diversity will almost certainly threaten infrastructure, health, water, food, and security, especially in many developing countries that lack the ability to adapt quickly to changes, and will increase the potential for conflict over rare natural resources.

The International Climate Change Conference was held in Glasgow, Scotland between October 31 and November 12, 2021, with the main goal of ensuring global net-zero carbon emissions by the middle of the century, thereby making it possible to keep global warming to a maximum of 1.5 degrees Celsius. After 13 days of negotiations between nearly 200 countries, the Glasgow Climate Pact was signed, completing the Paris Agreement rulebook.

Likewise, commitments were made regarding a variety of other issues such as forests, methane, vehicle emissions, and private financing. This included a commitment by 137 countries to “halt and reverse forest loss and land degradation” by 2030. Ending the use of coal for energy production was a key goal of the British presidency of the conference. 190 countries agreed to gradually phase out their coal-fired power plants, resulting in an expected 76% reduction in planned new coal power plants. Over forty countries declared their support for transitioning from coal to cleaner energy.[[48]](#footnote-48)

The Conference of the Parties (COP), which is the annual meeting of the United Nations Framework Convention on Climate Change (UNFCCC), was held in Sharm el-Sheikh between November 6–18, 2022. This was the largest event sponsored by the UN and was attending by approximately 37,000 official participants and 100,000 participants from civil society organizations. The conference was aimed at coordinating global efforts and discussing joint action to mitigate climate change, which could lead to a potential loss of up to 18% of global GDP by 2050. The conference also prepared to examine the implementation of decisions made at the previous conference, such as the establishment of the global mechanism for trading in emissions, setting a global adaptation target, and examining progress on funding for coping with climate change. In addition, a discussion was held on the issue of compensation for climate losses and damages.[[49]](#footnote-49) Prior to the conference, the UN stated that there was no realistic path to achieving the goal, as the world has not worked toward achieving it thus far. Therefore, an agreement was reached prior to the conference aiming to limit the increase to no more than two degrees Celsius. “Under pressure from countries such as Egypt, Saudi Arabia, Russia, and China, and due to the presence of many lobbyists from the oil and gas industries at the conference, critical clauses for the fight against global warming were not included in the agreement reached at the conference. Among other things, there was no clear commitment to stop using fossil fuels, and there was no commitment to bring about a drastic reduction in greenhouse gas emissions from 2025. In addition, there was no commitment by all the countries of the world to update their emission reduction targets by next year.”[[50]](#footnote-50) Egypt hosted the conference as a representative of the African continent.

After two weeks of discussions, representatives of around 200 countries agreed to establish a compensation fund for developing countries that have been affected by the damages of the climate crisis, which have mainly been caused by the activities of wealthy and polluting countries.[[51]](#footnote-51) This is a significant achievement for poor countries that have been fighting for this compensation for a long time. However, the representatives at the conference failed to strengthen global efforts to stop global warming that is causing climate damage, at a time when the window of opportunity to prevent severe crisis damages is closing rapidly. The world is currently on a path of catastrophic warming of at least 2.4 degrees Celsius compared to the pre-industrial era. Scientists warn that this warming will lead to dramatic changes to the nature of life on Earth and significantly increase the likelihood of natural disasters such as fires, droughts, extreme heat waves, floods, and more. The issue of compensating underdeveloped countries was at the center of the discussions at the conference from the first day, and this is the first time this issue has officially appeared on the conference agenda.

In the United States in recent years and especially during the presidency of Donald Trump, there has been a significant reluctance to acknowledge the severity of the climate crisis and the need to take drastic action to stop global warming. The situation changed with the election of Joe Biden as president and the start of his term in January 2021. President Biden introduced two legislative proposals on the issue: investments in infrastructure and jobs, and the social investments act. The first proposal, which included investments of $80 billion in transitioning to clean energy, was easily passed in the Senate, with support from 19 Republican senators. The majority of the climate-related investment was included in the second proposal, known as the Build Back Better Act. The Inflation Reduction Act, led by Senator Joe Manchin and Senate Majority Leader Chuck Schumer, includes $384 billion in new budgets to accelerate the transition to clean energy, incentivize consumers to purchase electric cars, and promote additional green priorities, as well as incentives for the oil and gas industry. This is one of the largest financial commitments made by the United States government to combat climate change and was signed by President Biden in mid-August 2022. The expected reduction in emissions due to this law is equivalent to the annual emissions from France and Germany combined, which are about 2.5% of the world’s annual emissions. This act alone may revive the goal of limiting global warming to 1.5 degrees Celsius, as determined in the Paris Agreement.[[52]](#footnote-52)

The International Maritime Organization (IMO) has also committed to working to reduce greenhouse gas emissions from ships in Resolution MEPC.304(72) with the intention of adhering to the decisions made at the Glasgow conference. It should be noted that the global shipping industry is responsible for generating 3% of all greenhouse gas emissions, and therefore it is important that it is aligned with the decisions made at the conference. The resolution emphasizes the benefits of working toward a synergy between clean air policies in shipping and building on existing measures related to reducing ship pollution under the International Convention for the Prevention of Pollution from Ships (MARPOL). The organization’s leaders expressed great concern regarding the findings of the IMO’s fourth greenhouse gas research for 2020, which estimates that if further steps are not taken, international ship emissions are expected to reach 90% to 130% of the emission levels in 2008 by 2050. The organization also recognizes that a rapid transition in the next decade to clean marine fuels, zero-emission vessels, alternative propulsion systems, and global availability of onshore infrastructure to support these is necessary to facilitate the shift to clean shipping. The statement signatories emphasized the need to establish an international coalition between proactive governments to work together and demonstrate that it is possible to reach zero-carbon emissions from ships while creating new business opportunities and socio-economic benefits for communities around the world.

On June 15, 2022, the seventh ministerial meeting of the Eastern Mediterranean Gas Forum (EMGF) was held in Cairo and attended by the President of the European Union, Ursula von der Leyen. The purpose of the forum is to serve as a regional framework for cooperation between governments and a multi-party dialogue on natural gas. During the forum, Israel’s Energy Minister Karine Elharrar signed a memorandum of understanding between Israel, Egypt, and the European Union on cooperation in trade, transportation, and natural gas exports to EU countries. The signatory parties will work together to enable regular natural gas supply to EU countries from Egypt, Israel, and other countries through existing natural gas infrastructure in Egypt. The agreement represents another step toward positioning Israel as a natural gas power, which will increase the country’s natural gas exports to Egypt and from there to other countries in Europe that require an additional natural gas source due to the global energy crisis. Natural gas exports serve as a lever for Israel’s geopolitical status while maintaining the amount of natural gas required for domestic consumption. This also has major economic implications for the local energy sector and the Israeli economy. Furthermore, this step helps Israel and countries such as Egypt reduce the use of polluting fuels such as coal and oil and dramatically reduces air pollution in the region.

***The Clydebank Declaration for Green Shipping Corridors***

In light of the negative contribution of the shipping industry to greenhouse gas emissions, the signatories of the declaration committed to supporting the establishment of green shipping corridors, i.e. maritime routes between two (or more) ports with no carbon emissions. The signatories of the declaration stated:

It is our collective aim to support the establishment of at least 6 green corridors by the middle of this decade, while aiming to scale activity up in the following years, by inter alia supporting the establishment of more routes, longer routes and/or having more ships on the same routes. It is our aspiration to see many more corridors in operation by 2030. We will assess these goals by the middle of this decade, with a view to increasing the number of green corridors. In the pursuit of these goals, with reference to the approach(es)…, signatories pledge to… identify and explore actions to address barriers to the formation of green corridors. This could cover, for example, regulatory frameworks, incentives, information sharing or infrastructure… [and] the inclusion of provisions for green corridors in the development or review of National Action Plans...[[53]](#footnote-53)

***Israel’s Commitment to Reducing Greenhouse Gas Emissions***

In July 2021 and in anticipation of Israel’s participation in the Glasgow Climate Change Conference, the Israeli government approved a proposal to transition to a low-carbon economy to meet the standards of advanced countries in the world (OECD) and set goals for reducing emissions. Initially, the government set modest targets: an 85% reduction in greenhouse gas emissions by 2050 compared to 2015 emissions and a reduction in emissions of only 27% by the end of the current decade. Shortly before then-Prime Minister Naftali Bennett attended the UN Climate Change Conference in Glasgow in November 2021, Israel decided to align with the OECD countries and declared a target of net-zero emissions by the middle of the century (2050). However, Israel has not yet submitted a detailed plan to the UN as other countries did and were required to do prior to the conference updating their nationally determined contribution (NDC).[[54]](#footnote-54) To implement the transition to a low-carbon economy, Government Resolution 171 was made stipulating that a cross-ministerial committee led by the director-general of the Ministry of Environmental Protection, Galit Cohen, was to develop and submit a detailed national plan for carrying out the necessary steps. As of the writing of this report, this plan has not yet been completed.[[55]](#footnote-55)

**Cyberspace**

Cyberattacks are designed to steal information, influence populations, and harm industries, including critical physical and digital infrastructure, and they will continue to pose a threat to countries and global companies around the world. Despite the increasing cyber capabilities of countries and non-state actors, the Western world is mainly concerned about Russia, China, Iran, and North Korea. The growing use of cyber operations by states as a means of wielding national power, including the increased use by militaries around the world, raises the likelihood of offensive and more harmful cyber activity. As states attempt more aggressive cyber actions, they have a higher chance of impacting civilian populations and strengthening other states seeking similar results. Authoritarian and illiberal regimes around the world will increasingly exploit digital tools to monitor their citizens, control freedom of expression, increase censorship, and collect information to control their populations. Governments will conduct more and more cross-border cyber intrusions that affect citizens beyond their borders as part of broader efforts to identify foreign populations and influence them. Over the past decade, state-sponsored hackers have infiltrated software networks and IT services, aiding in espionage, sabotage, and preparing for war.

The maritime industry, which is a central part of the supply chain for all products, is highly dependent on computer and control systems. More than 90% of global trade is transported by sea, and a cyberattack on ports or shipping vessels and companies can have significant and wide-ranging economic consequences. In recent years, it has become apparent that supply chains in many organizations and companies are vulnerable in terms of cybersecurity. A supply chain is a coordinated system of organizations, people, activities, information, and resources involved in delivering a product or service from a supplier to a customer. This means that an attack on a weak link in the chain can lead to the collapse of the global supply chain. In the maritime domain itself, which is a significant part of the supply chain, as ships continue to adopt more and more digital technology, the risk of cyberattacks increases. The IMO defines a maritime cyber risk as “the extent to which a technology asset could be threatened by a potential circumstances or event, which may result in shipping-related operational, safety or security failures as a consequence of information or systems being corrupted, lost or compromised.” However, during the COVID-19 pandemic it became clear that the greatest cyber threat actually lies in the shipping and ports sector. The pandemic accelerated the digitization that was already occurring in the world due to guidelines that required people to work from home via the internet. As a result, the shipping and ports sector has had to increasingly rely on internet communication, which requires shipping systems to remain continuously connected to the network, making them more vulnerable to cyberattacks. The situation is exacerbated by the fact that a large part of the systems and computers in the shipping industry rely on complex and outdated operating systems, which further compromises their resilience to cyberattacks. In 2017, the IMO’s Maritime Safety Committee (MSC) adopted guidelines for managing maritime cyber risk in safety management systems in Resolution 98 428.MSC. The resolution encourages shipping company managers to ensure that cyber risks are properly addressed in existing safety management systems (as defined in the ISM Code) no later than the company’s first annual verification of the compliance document after January 1, 2021. Internet-related (IT) and operational technology (OT) systems that may be exposed to cyber threats include, among other things, command bridge systems, cargo handling and management systems, propulsion and machinery management systems, power and access control systems, communication systems, and more. The ship crews’ limited ability to support or manage advanced cybersecurity issues are emerging as a persistent problem in the maritime industry.[[56]](#footnote-56)

A report issued by the maritime cybersecurity company CyberOwl published in March 2022 revealed significant gaps in cyber risk management in shipping organizations and the broader supply chain, despite the guidelines provided to shipping stakeholders by the IMO in 2021. The report is based on a survey of over 200 industry professionals, including C-suite executives, cyber security experts, sailors, port managers, and suppliers. The survey’s main findings are as follows:

The financial cost of a cyberattack can be extreme: when an attack results in a ransom payment, the average ransom paid by ship owners was $3.1 million.

However, most ship owners have invested significantly in cyber security management: over half of them spend less than $100,000 per year.

Two-thirds of industry professionals do not know whether their insurance covers cyberattacks.

Only 55% of suppliers in the industry are required by ship owners to prove that they have cyber risk management guidelines.

More than 25% of sailors do not know (and have not been trained regarding) what actions are required of them in the event of a cyber event.

Within organizations, the higher a person’s position, the less likely they are to be aware of a cyberattack.[[57]](#footnote-57)

In the future, it is highly likely that hostile regimes, non-state actors with malicious intent, and proxy organization supporters will create unprecedented destruction in coastal waters and chokepoints. Cyber threats and other electronic threats are particularly prominent in the maritime domain and have grown dramatically over the past decade. Malicious actors understand that the maritime domain depends on automation and will seek to exploit vulnerabilities in ship systems. Tactical and strategic damage in information-dependent systems are becoming so common and cheap that even small nation-state rivals and organized groups can exploit this dependence, either on their own or as proxies of larger powers. Additional countries interested in challenging the world order and non-state actors use and will continue to use cyber threats as a strategy against law-and-order-abiding states. This is a new form of irregular warfare and it is assumed that the cyber threat on ships, ports, and maritime infrastructure will increase sharply in the coming years. Therefore preparation is required to protect the assets mentioned, including international cooperation to defend and deter state or other actors from operating in this domain.

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