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Türkiye–Israel Collaboration and Energy Diplomacy*

Oğuzhan Akyener and Abdullah Altun

The international system is undergoing a major transformation, mainly related to the changing structure of global value chains (GVCs). A GVC basically refers to the full range of globally dispersed activities for bringing a product from its conception to beyond final consumption.[1] Since the mid-1980s, the world has experienced what could be called the second great unbundling (or GVC revolution), which means that the separation of production stages across countries has become more attractive.[2] Thus, the GVCs dominate the global economy. Multinational-enterprise-coordinated GVCs account for more than 70 percent of global trade.[3] Since the 2007–8 food crisis and the 2008 global economic crisis, the expansion of GVCs has been disrupted. In particular, the self-sufficiency concerns after the 2007–8 food crisis and protectionist sentiments after the 2008 global economic crisis continue to increase because of the trade wars (2018), COVID-19 (2020–21), and the Russia-Ukraine war (2022).[4] The transformation of the existing value chains and the changing weight of the current production and consumption hubs are just some of the main signs. In this transition period, new collaborations, such as the Regional Comprehensive Economic Partnership (RCEP), Union State (a supranational union consisting of Russia and Belarus), and AUKUS (trilateral cooperation between Australia, the United Kingdom, and the United States), associated with new conflicts are emerging. The East, which is getting stronger and consuming more, unsettles the existing system dominated by the West. The war between Russia and Ukraine and the unjust annexation of Ukrainian lands by Russia cause much more grave concerns in this context.

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* Editor's note: We welcome the inclusion of the article in this year's Maritime Strategic Evaluation of the Maritime Policy and Strategy Research Center. However, we emphasize that its content and terminology reflect only TESPAM's views.

1 G. Gereffi and K. Fernandez-Stark, Global Value Chain Analysis: A Primer, 2nd ed. Center on Globalization, Governance & Competitiveness (Durham, NC: Duke University, 2016).

2 R. Baldwin, *Globalization: The Great Unbundling(s)*, prepared for the Finnish Prime Minister's Office as a Part of Finland's EU Presidency Programme, Economic Council of Finland, 2006; R. Baldwin, *The Great Convergence: Information Technology and the New Globalization* (Cambridge, MA: Belknap Press of Harvard University Press, 2016).

3 OECD, WTO and UNCTAD, Implications of Global Value Chains for Trade, Investment, Development and Jobs, prepared for the G-20 Leaders Summit, St. Petersburg, Russian Federation, 2013.

4 FAO, The State of Agriculture Commodity Markets 2015–16. Trade and Food Security: Achieving a Better Balance between National Priorities and the Collective Good (Rome, 2015); M. Datt, B. Hoekman, and M. Malouche, *Taking Stock of Trade Protectionism since 2008*. Economic Premise, No. 72 (Washington, DC: World Bank, 2011).

In this painful transition period, climate concerns, migration, and the energy crises negatively affect large energy import-dependent economies, such as the EU. At this point, multilateralism becomes much more important than ever to solve complex problems. In terms of geostrategic location, Türkiye and Israel are at the very center of the relevant global transition process. For this reason, cooperation between Türkiye and Israel will make significant contributions toward the stability of the region, sustainability of the value chains, resolution of the regional conflicts, contribution to the energy supply security of the allies, combating climate change, and minimizing the negative effects of migration.

In this article, after indicating some significant points about the contemporary transformation of the global economy, the increasing importance of energy diplomacy, Türkiye's growing role in this context, and the multifaceted benefits of Türkiye–Israel cooperation will be discussed.

Future of Global Crisis within the Context of Energy and Climate Change

The world is in an era of a great transformation. Although some scholars claim that there is considerable renunciation of globalization, the possibility of a new wave of globalization also seems very realistic. Indeed, partial de-globalization can be observed within the context of an ongoing globalization algorithm, but there are obvious signs of a new wave of globalization with a new trajectory. Since the 1990s, developed countries have outsourced various phases of their domestic production by using their outward foreign direct investments (FDIs). Abovementioned GVCs are the results of these outsourcings. When the FDIs of developed nations arrive in destination countries, they benefit from the lower local wages, import intermediate products from various countries to produce there and export all over the world from these destination countries. As a result of this algorithm, even foreign invested enterprises (FIEs) accounted for approximately half of the imports and exports of China, although they are responsible for just 17 percent of industrial production of China.[5] Not restricted to this example, many developing countries host considerable amounts of FDIs from developed nations and produce for them within the context of this algorithm. However, this algorithm is threatened by the abovementioned self-sufficiency concerns and protectionist sentiments. Most probably they will be the main driver of the transformations in the GVCs. There is no doubt that some of the most important issues in the midst of this great transformation are the contemporary energy

5 These ratios are the authors' own elaborations using data from the National Bureau of Statistics of China (NBSC), *China Statistical Yearbooks 2000*; NBSC, *China Statistical Yearbooks 2006*; NBSC, *China Statistical Yearbooks 2010*; NBSC, *China Statistical Yearbooks 2011*; NBSC, *China Statistical Yearbooks 2016*.

crisis and climate change. To clarify these issues further, we should consider their short-, medium-, and long-term dimensions separately.

Winter is coming! The 2022–23 winter will be very challenging for Europe. As the primary energy provider for Europe, Russia cut off gas exports to Europe. According to alternative scenarios, it does not seem possible for Europe to utilize other resources in the short run to satisfy their energy needs. Thus, such a difficult situation will have serious consequences for governments, enterprises, and households. Associated recession risks and increasing political instability are just some of these consequences. Contrary to emissions targets, Europe has started to operate its conventional energy facilities again. Europe's efforts toward reducing emissions seem to have been badly damaged as a result of the Russia-Ukraine war. Whether these outcomes can be results of the struggle between producers of conventional energy resources and alternative or renewable energy producers is an important question nowadays.

Here one important point should be further clarified: Is this short run energy crisis due to lack of energy? Of course, there are hesitations about the sufficiency of the world energy resources in the long run, but the current crisis is not related to this. The increasing energy prices that threaten the sustainability of contemporary production hubs and trade networks are very consistent with the power struggle in GVCs.

A series of events starting with the 2008 global economic crisis increase the tendency toward self-sufficiency concerns and protectionist sentiments among nations. The 2018 United States–China trade wars, the COVID-19 pandemic, and the Russia–Ukraine war all have very similar effects in terms of self-sufficiency and protectionism. Although this is a threat for available value chains, whether this situation may result in construction of new value chains is another question of interest.

The bipolar international system after World War II dominated global relations until the dissolution of the Soviet Union. Interestingly, the current environment after the Russia–Ukraine war bears traces of the bipolar world order. From a different point of view, the rise of China since the 1990s, driven mostly by Western FDIs, cannot be ignored. Although China once was supported mainly by the United States until it reached a certain level of production, the United States in recent years mainly tries to restrict China. Thus, the world goes toward a new world order, but whether this new order will be a bipolar or a multipolar order is not fully understood yet.

Technological leadership cannot be separated from all of the abovementioned topics of interest. China shows real progress in terms of intellectual properties and scientific studies. According to the latest statistics, China is the leader in terms of patent applications

(see Table 1) and a leader in the production of scientific documents (see Table 2). We will probably witness many different outcomes of changing technological leadership in the medium- and long-term.

Table 1: Patent Applications

Patent Applications	2007	2018	2019	2020
World Total	1,850,000	3,325,400	3,224,200	3,276,700
China	245,161	1,542,002	1,400,661	1,497,159
United States	456,154	597,141	621,453	597,172
Japan	396,291	313,567	307,969	288,472

Source: WIPO (2009, 2019, 2020, 2021)[6]

Table 2: The Number of Citable Scientific Documents and Ranks

1996			2020		
Rank	Country	Citable Documents	Rank	Country	Citable Documents
1	United States	350,258	1	China	744,042
2	United Kingdom	86,373	2	United States	624,554
3	Japan	89,430	3	United Kingdom	198,500
4	Germany	75,878	4	India	191,590
5	France	55,205	5	Germany	174,524
6	Canada	42,607	6	Italy	127,502
7	Italy	39,127	7	Japan	127,408
8	Russian Federation	32,243	8	France	112,838
9	China	30,741	9	Canada	110,247
10	Australia	24,754	10	Russian Federation	119,195

Source: SCImago[7]

In addition to the supply chain disruptions due to increasing freight costs and long delivery times driven by COVID-19, the recent Russia–Ukraine war makes the situation worse, especially in terms of energy and food value chains. Moreover, regarding the other conflicts such as the United States–China conflict over Taiwan, there may be more possible threats for the security of long GVCs.

The intense technological change especially in terms of the increasing role of robots, threatens employment in manufacturing industries. There is evidence of the negative impact of robots or automation on the employment of both developed and developing

6 World Intellectual Property Organization (WIPO), *World Intellectual Property Indicators 2009*; WIPO, *World Intellectual Property Indicators 2019*; WIPO, *World Intellectual Property Indicators 2020*; WIPO, *World Intellectual Property Indicators 2021*.

7 SCImago, "SCImago Journal & Country Rank", *SJR*, April 2022.

nations.[8] Although countries are aware of the issue up to a point, it is not possible to considerably control the ongoing transformation. Factories can successfully produce the same amount of goods with much lower levels of labor compared to ten years ago due to increasing technological capacities of capital goods. There will be possible challenges driven by the differences in the priorities of firms in terms of profit seeking and the efforts of governments to avoid unemployment. Artificial intelligence, 5G, machine learning, big data, Internet of Things, and other new developments have potential to cause many economic and social changes in the long run.

In the long run, a trilemma awaits us: the sufficiency of world energy resources, climate change and the energy hungry-countries such as China and India. More energy consumption means the earlier extinction of energy resources. The further progress of societies requires more energy but brings more emissions. The increasing climate change deteriorates agricultural lands and increases immigration. Sustaining food security becomes much more difficult. Very big movements of human population can be only dealt with by careful planning and efforts by the majority of nations.

The increasing self-sufficiency and protectionism, on the one hand, and increasing needs for multilateral cooperation, on the other, may pose a further challenge for the international community. Nations must first meet their energy needs in order to ensure their sustainability. In this transition and energy crisis period, energy diplomacy is more important than ever. In the next section, we will elaborate on some issues in this context.

Increasing Importance of Energy Diplomacy through the Energy Crisis Era

Energy is now undoubtedly more important for the world than ever before. While the global energy demand is increasing rapidly, many targets are set for energy transition in order to reduce carbon emissions. Energy supply and prices directly affect the growth targets of countries. While the global economy and technological superiority are slowly shifting from the West to the East, the global tension evolving in the axis of the United States–China conflict reveals a globalization model in which energy is put at the center. Balances shaken by extraordinary situations such as the pandemic turn into the launchpad of a global economic model focused on green transition.

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8 A. D. Kugler, M. Kugler, L. Ripani, and R. Rodrigo, U.S. Robots and Their Impacts in the Tropics: Evidence from Colombian Labor Markets, *National Bureau of Economic Research* Working Paper Series No: 28034, 2020; Francesco Carbonero, Ekkehard Ernst, and Enzo Weber, Robots Worldwide: The Impact of Automation on Employment and Trade, *International Labor Organization (ILO)*, Research Department Working Paper No: 36, October 2018.

Of course, together with all these developments, the contraction in the hydrocarbon sector and the lack of investment reveal that there are inadequacies in meeting the demand caused by the economic growth following the pandemic. Many states that dream of an early green transition are waking up from their rosy dreams into an icy energy crisis. In this process, the international organizations that recommend not taking the discovered hydrocarbon resources into production bury their heads in the sand in the face of these events.[9]

While this is happening, Russia unexpectedly and irrationally invaded Ukraine in February 2022, which deepened the energy crisis, and the international system is heading toward an inextricable crisis. GVCs, logistics networks, financial cycles, and international trade are facing a major bottleneck. With each new statement and sanctions, Russia's relations with the United States and the EU are getting more strained, causing the energy flow to be more difficult, and the prices are now causing many energy-importing countries to reach a deadlock.

While many countries are crushed under the worry of recession with rising energy prices, production is shifting toward countries where energy is cheap, especially in sectors with high energy intensity. The process, which started with the coal crisis in the Asian markets in September 2021,[10] affects the natural gas markets, and with the tense international system following the Russia-Ukraine war, natural gas and electricity prices have reached unmanageable levels, especially in the European markets.[11]

The price scales, which test tens of times what they should be in the spot markets, seriously affect the newer members of the European Union due to their relative financial weakness compared to earlier members. Energy has special significance for the unity of the EU, since the current energy crisis may threaten the EU countries in terms of social security and economic contraction. While energy became such a strategic issue for the EU, the goal of achieving a market free of Russian gas (or at least reducing dependence on Russian gas) has shifted to a more concrete plan. In fact, the history of dependence on Russian natural gas for EU countries started long before the EU was established. Natural gas, which is a much more practical and cleaner energy type (compared to coal), has

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9 IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector, *International Energy Agency*, May 2021.

10 M. Meidan, China and the Energy Crisis: Still on Track for 30–60, Commentary, Italian Institute for International Political Studies, *ISPI (Italian Institute for International Political Studies)*, January 5, 2022.

11 UN, Global Impact of War in Ukraine: Energy Crisis, United Nations Global Crisis Response Group on Food, Energy and Finance, Brief No: 3, August 2022.

been imported from Russia by many EU countries for many years, without hindering industrialization and growth targets.

On the other hand, mostly since the Cold War period, European countries have been trying to create markets that are less reliant on Russian gas. However, this situation has never been easy to accomplish. Because Russian gas has often been the cheapest, easiest to access, and safest regarding the supply route (generally sustainable). Due to this, an effective policy cannot be carried out in this context. Moreover, we have to note that the nature of the gas market, which requires giant investments and climate-related policies, also affects decisions in this regard.

Therefore, the EU was usually following a confused policy, where it cannot completely agree on accepting or denying additional Russian gas imports. However, this situation seems to have ended with the Russia–Ukraine war.[12] The Russia–Ukraine war was indeed a painful turning point that demolished the diplomatic bridges between EU countries and Russia. In fact, even though they had harsh rhetoric against Russia (as a matter of policy), the EU leaders knew that it was not possible to eliminate Russian gas from their markets in a short time. However, this war has broken all the ongoing dynamics.[13] Worsening sanctions, price cap (for Russian oil or gas) declarations, and planned sabotages to the Nord Stream 1 and 2 pipelines have greatly reduced the possibility of normalization of relations. For the winter of 2022–23, it can be estimated that, despite EU wishes, it will not be able to import additional Russian gas from the Nord Stream routes.

According to the long-term projections of the Turkish Energy Strategy and Research Center,[14] it is obvious that the resources that can be procured from countries such as the United States, Norway, Qatar, Australia, Nigeria, Algeria, Libya, and Azerbaijan (as long as the technical capacities allow) will not be a solution for the EU. In addition, it can be estimated that the related possible resources cannot be considered a long-term solution in the price-cost-reserves triangle.

So, what can the EU do? It has suspended its green transformation goals, has condoned coal plants, has cut down trees for heating purposes, and has reintroduced nuclear and natural gas into the clean energy class. At this point, establishing an effective energy diplomacy and long-term macro policies are perhaps the most feasible solutions. A new

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12 Oğuzhan Akyener, *Black Sea 2022 – Energy Crisis: The Only Realistıc Option for a Russian Gas-Free EU Turkiye Route* (Ankara, 2022).

13 Oğuzhan Akyener, *Black Sea 2022 – Energy Crisis: Worsenıng Energy Crisis in EU* (Ankara, 2022).

14 TESPAM, *World Energy Outlook 2100*, Turkish Energy Strategy and Policy Research Center (Ankara, 2020).

integrated route through Türkiye may be a long-term chance for the EU to reach a market free from Russian gas.

Türkiye's Strengthening Role for Being a Transit Country

Türkiye has been developing strategies to become an energy hub (specifically, a gas transit center) since the Nabucco pipeline project studies.[15] In this context, there is no doubt that the possibility of connecting Türkiye's eastern and southern neighbors (which are rich in energy resources) with its western neighbors is emphasized. Undoubtedly, many technical, economic, political, and financial conditions must be realized simultaneously in order for these plans to come to life. From this perspective, the current energy crisis and the EU's more coherent attempts to reach a market structure free of Russian gas can be an important advantage for Türkiye to be an energy transit hub. In addition to this, such a route and solution model can be the most realistic option for the EU's energy security.

At this point, as a solution model, TESPAM's long-term projections were used. TESPAM (Türkiye Enerji Stratejileri ve Politikaları Araştırma Merkezi) founded a GIS-based (geographic information system) dynamic energy flow model in 2020. This model is currently available only for TESPAM's internal studies and analysis. Within this concept, all proved and declared reserves, economic, social, political properties of each country, and relevant markets are combined within a numerical and geographical approach. Through this model, TESPAM tries to estimate and project long-term energy demands, supply potentials, costs, tariffs, prices, and market conditions within the neighboring geography of Türkiye. In this regard, Iraq, East Med (Eastern Mediterranean), and Turkic countries' gas exports were modeled to be transported to Türkiye and the EU. The results show that this model can only be achieved in the long term, has a huge economic and political cost, and the possible gas transit via this route may not be as cheap as Russian gas (by evaluating the unit production and transportation costs). However, this seems the only realistic, sustainable, and applicable option for an EU that is not dependent on Russian gas (within the current dynamics).[16] In this context, the EU's long-term gas demand and import scenarios (in 2050) can be observed in Figure 1:

- Romania will need an import volume of 6-bcma (billion cubic meter/year).
- Türkiye will need 80-bcma.
- Bulgaria will need 5-bcma.

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15 T. Umucu, M. Altunisik, and M. V. Kok, "Turkey as a Major Gas Transit Hub Country", *Energy Sources Part A,* 34 (2012): 377–384.

16 TESPAM, *World Energy Outlook 2100.*

- Italy will need 90-bcma.
- The balloons on the map show the demand of the other European countries.
- Through the possible transit routes (pipeline infrastructure) with some additional investments, gas markets in Baumgarten, East Austria, or Italy can be used to supply some Western and Central Europe countries such as Germany, France, Belgium, the Netherlands, Poland, and the Czech Republic. Through this route an additional 40-bcma can be available (by evaluating the limitations through the technical constraints).[17]

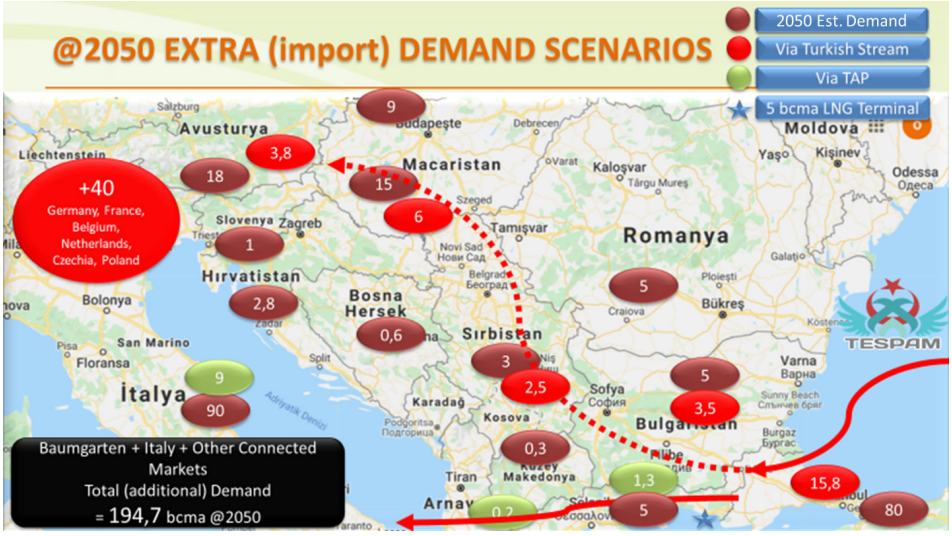

Figure 1: 2050 Gas Demand Projections in Some EU Markets[18]

As can be observed, Austria, Italy and other connected markets will be fed through a possible Turkish route. And the total reachable demand will be around 194.7-bcma in 2050 (without Türkiye).[19] As to export potentials, Figure 2 shows the possible volumes of additional exports of due countries or regions in 2050.

This huge supply potential can be achieved only if the security concerns and the conflicts are solved and an investment environment is sustained. Moreover, this volume can be a real long-term solution for an EU free of Russian gas. If the EU will not make the effort to

17 Akyener, *Black Sea 2022 – Energy Crisis: The Only Realistic Option for a Russian Gas-Free EU Turkiye Route.*

18 Ibid.

19 Ibid.

obtain this gas, we are sure that China is waiting (and making the investment) for all of the gas resources from this region (Turkic countries).[20]

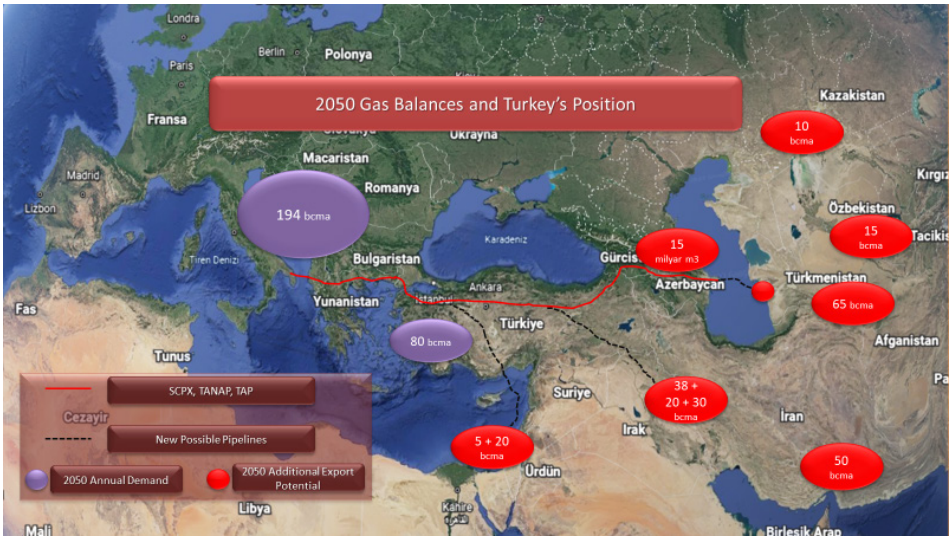

Figure 2: 2050 Gas Balances and Türkiye's Position[21]

East Med Gas Potential

Undoubtedly East Med has a very unique and strategic role in this model. That is, although export potential is not as high as the eastern regions, development capabilities and transportation costs make East Med preferred. On the other hand, existing political conflicts in the region worsen the situation. According to TESPAM's long-term projections, Israel and the Southern Side of Cyprus Island (SSCI) may have around 25-bmca gas export potential in 2050 (by accepting the limits of the current discoveries).[22]

Note that there is not enough evidence and proven data regarding ENI's latest discovery in the SSCI, and declarations about the Cronos-1 were not taken into consideration.[23] In this regard, it can be analyzed that first, Egypt, being in a position to have the ability to export its gas from the existing LNG (liquefied natural gas) infrastructure, is out of the equation in all political discourse. Second, Israel has a roughly 5-bcma additional export

20 Ibid.

21 Ibid.

22 Oğuzhan Akyener, "Future of Israel Gas Export up to 2050 & Turkiye", *Energy Policy Türkiye,* 2, no. 2 (2016): 15.

23 Press Release, "Eni Makes a Significant Gas Discovery Offshore Cyprus", *eni.com*, August 22, 2022.

potential by analyzing the long-term sales possibilities. However, again to make such exports, Israel needs to find a reliable and economically feasible market. In addition to this, Israel also has possible new structures (interpreted in the seismic studies) waiting to be invested and tested, which can be accepted as new reserves.[24] This means, again, for Israel to find investors for these new projects, the country needs a possible export route.

There is an important volume of export potential in SSCI (around 18-bcma plateau rate). However, due to the existing conflicts, there will not be any real investments for the further development of these projects. Israel's additional export potential and the SSCI discoveries can be exported together, which means the total volume to discuss will be around a peak of 25-bcma. This is a good volume in comparison to the gas supply security concerns of the EU. This volume politically and economically can be transported to the EU through a route in Türkiye. Türkiye is the biggest, as well as a reliable, sustainable, and commercial gas market in the region (which also may be a more profitable option for the gas suppliers in the East Med). There are huge conflicts in the region, and the best solution can be achieved through Israel's and Türkiye's integrated approaches.

The increasing cooperation between Türkiye and Israel may lead to the resolution of many regional conflicts from the Cyprus conflict to the Syrian Civil War and other regional conflicts. Energy and water problems on the whole island of Cyprus may be resolved with Türkiye's help. The current political climate can be used as leverage to solve all these blocked issues in the region, and gas trade opportunities can be used as a leverage point for Western countries.[25]

Importance of Türkiye–Israel Collaboration

The current situation clearly reveals the fact that energy can be used as a tool for resolving regional conflicts. Moreover, the current situation also shows that thanks to the ability of Türkiye and Israel to act together in this context, they can find many opportunities and support for the resolution of the relevant regional conflicts. In this context, it has become more possible to create a basis for the attention of the international public and the related problems to be resolved more quickly through fair and pragmatic means.

While the world is going through a great crisis and chaos and while the EU is experiencing such difficulties for the first time, further tensions in the Eastern Mediterranean will not benefit anyone. Energy-oriented steps by Türkiye and Israel will not only benefit the

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24 *Israel's Ministry of Energy*, Gas Fields & Exploration Licenses Offshore Israel, June 2020.

25 Oğuzhan Akyener and Abdullah Altun, Israel Gas Export Potential, Turkiye and Regional Dynamics, *Tespam*, October 5, 2022.

interests of the two countries but also contribute to the development of the possible resources of Lebanon and Syria in the long run. On the other hand, thanks to the abovementioned possible energy corridor (between Israel and Türkiye), the resources located in the south of Cyprus could also be brought into the economy and used for the welfare of the island's rights as well as all relevant markets.

It is no wonder that all global parties in the current situation cannot formally accept the existence of two nations and two states on the island of Cyprus. However, the synergy to be obtained from the cooperation and mutual win-win environment (after a possible energy corridor) can be used to change these kinds of existing conflicts. Otherwise, conflicts and further tensions in the region will continue to harm the interests of Israel, Türkiye, the EU, and the United States. Strategizing against Türkiye (a NATO member!), with harsh rhetoric and hypocritical attitudes, would mean increasing the dominance of countries such as Iran and China (which the United States and other Western allies perceive as threats) in the region. That is why it would be appropriate to follow more sincere policies in understanding these issues.

While energy has become such an important issue in this process, it would be beneficial to initiate an energy-centered cooperation process, even if the current problems are suspended, and to review the solution models later, taking into account the gains achieved in this context. For this reason, Türkiye–Israel cooperation and an energy diplomacy model that can be at the center in this context are very important for ensuring regional peace and for the long-term solution of conflicts.

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