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# THE GEOPOLITICAL VARIABLE AND ITS IMPACTS ON THE MANAGEMENT OF THE IRAN-ISRAEL CONFLICT

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### Introduction

Geopolitics in the international arena has seen several accelerating shifts and changes over the past two decades, especially regarding the major world powers' map of geographical clout as well as the spheres of regional and international competition. Global developments and cutthroat competition between the global poles have led the arenas of competition between the major world powers to extend to geographical regions that have become the focus of strategic priorities such as the Indo-Pacific, Eastern Europe and the South Caucasus. This has led to the escalation of disputes in these regions whereas the disputes in the traditional Middle Eastern hotspots have cooled down.

Looking at the Iran-Israel conflict, which falls within the scope of this study, we find that it has been impacted in one way or another by the aforesaid geopolitical developments. This includes the decline of the US presence in the Middle East, pivoting resources to confront the mounting Russo-Chinese influence in the Indo-Pacific, Central Asia and Eastern Europe, the collapse of the nuclear talks,

formally known as the Joint Comprehensive Plan of Action (JCPOA), with Tehran moving closer to the nuclear threshold. This is in addition to the geopolitical shifts in the Middle East, represented by some Middle Eastern nations opting tor ending all differences and tensions with Iran to secure their security interests in light of the declining US protection umbrella. Yet another factor is the mounting tensions between Tehran and Tel Aviv over the past few years in the context of the "shadow war." All of the aforesaid developments led to an increase in the indicators of perceived threats from Iran against Israel.

To counter the threat, Tel Aviv is seeking to develop a confrontation strategy against Iran. It is opting for strategies that serve as alternatives to its security policies, in accordance with the core tenet of its offensive military doctrine of "transforming the battle to the enemy's territory." (1) Additionally, Israel seeks to overcome the obstacle posed by the distance separating Tehran and Tel Aviv —2,200 kilometers — by utilizing the geopolitical variable in the management of the dispute between the two sides. Iran has been seeking over the past decade to encircle Israel through taking advantage of the geopolitical tectonics created by the geopolitical transformations in the region in the context of what is known as the "shatterbelt" in the geographical regions surrounding Tel Aviv — which is also known among Arab research and media platforms as the Shiite Crescent (Syria, Lebanon and Iraq) — to tighten the noose around it in its lebensraum. Similarly, it seems that Israel is seeking to achieve the same end through making geopolitical infiltrations into Iran's lebensraum to the north, thus creating a foothold in these regions.

These developments in turn give rise to the question regarding the repercussions of Israeli cooperation with the countries located in the South Caucasus and Central Asia adjacent to Iran's northern borders, on the direction of the Iran-Israel conflict. Could this cooperation enable Tel Aviv to create its own "Israeli Crescent" or shatterbelt akin to Iran's Shiite Crescent in the Middle East? Last but not least, will the geopolitical map of the South Caucasus — in terms of spheres of influence and the control of regional actors — help Israel achieve its objectives in that region? The study will answer these questions.

# The Relationship Between Geopolitics and Conflict Management

The literature focusing on studying the patterns of conflicts between countries indicates that all patterns in international relations contain assumptions that highlight regional and global conflict. International conflict has been engrained throughout the course of history. In the case of geopolitics, the assumption of conflict reflects both the conservative bias

and the traditional security perception within the framework of geopolitics because it is in harmony with the assumption that conflict is a natural phenomenon in all political relations — and conflict is present in human nature and states' behavior. Yet the global stage reflects a dangerous environment; thus, the world's countries must focus on national integrity for the sake of survival. This prompts statesmen to guide their nations to what guarantees them the assumption of safe positions to preserve their vital resources that are available in their own environments. (2)

Here it is worth noting that Colin S. Gray (1943 –2020), a British-American writer on geopolitics and professor of International Relations and Strategic Studies at the University of Reading, was among those who pioneered the idea that conflicts are deeply engrained in geopolitics. He indicated that the significance of geopolitics, and therefore the Heartland Theory coined by Sir Halford John Mackinder, lies particularly in the fact that it discusses a chief dimension in global disputes: the geographical dimension. The significance lies also in the fact that the theory seeks to specify and explicate the patterns of global disputes. Gray's hypothesis has represented an important element of the study of geopolitics from the classical perspective. (3) In this respect, it could be said that there are some geographical formations in the context of the science of geopolitics that boost or curtail the dangers of a dispute. These are constantly placed within the spatial sphere —just like pivotal geopolitical structures, foremost of which are:

**Shatterbelt**: These regions were given a wide array of names in the past, including "crush," "clash zones, "middle tiers," "belts of political change," "devil's triangles" and "zones of contact." (4) The concept of a shatterbelt was commonly employed in Central Europe and the Middle East and to a lesser degree in Southeast Asia by early writers on geopolitics. (5)

In their original categorizations, the perceived characteristics of a shatterbelt included political, ethnic and economic tensions but still invited interventions on the part of more powerful neighbors. Stimulus wars through which smaller states have encouraged larger outside powers to intervene in their favor against local rivals are the hallmark of a shatterbelt. Briefly put, a shatterbelt sparks conflict and war, thus posing a danger to regional and global peace. <sup>(6)</sup>

A shatterbelt emerges when specific countries, both at the local and strategic level, decide to engage in alliances with/against friends or foes — both local and strategic. These alliances are formed through political options rather than specific regional characteristics. Therefore, we find strategic rivals competing against others in specific regions; and these regions are also restive. Local regions accept the intervention on the

part of major world power patrons. The final upshot sees these alliances deepening, escalating into prospects of war. (7)

• **Checkerboards**: This structure presents another position in the context of the balance of powers, the conflicting rivalries and alliances that arise in scattered periods throughout history. The diplomatic patterns in South American foreign affairs provide an example of this geopolitical structure. The checkerboard best fits the maxim "Your neighbor is your natural enemy and your neighbor's neighbor is your friend." Borders are always a source of international tensions between neighboring nations, but these potential balances break down through the establishment of alliances with neighbors who are located in more distant regions and continents. The level of stability inside a checkerboard is determined by the precise geographical configurations identified within that structure. (8) The most evident example of this structure is the Peloponnesian War experienced by the Ancient Greeks. The checkerboard pattern can lead to greater violence; this pattern had led to the thwarting of all peaceful settlements. The borders of competitors were close enough for several city states and empires to incentivize rivalry. The Athenians' failed siege on Syracuse weakened the city, and the neighboring Persians helped fund the Spartan fleet, turning the contest to Sparta's advantage, a pivotal pass that vanquished the Athenians after a 30-year war. (9)

This is analogous to some of the current conflict patterns in the Middle East, several Balkan regions and the South Caucasus.

Overall, it could be said that the correlation between geopolitics and the conflict that arises between countries, as mentioned above, is an introduction to applying the aforesaid theoretical projection to the Iran-Israel conflict, encompassing the Middle East, the South Caucasus and Central Asia. There is a relationship between the geopolitical variables that produce geographical formations such as a shatterbelt and the conflicts stimulated by these formations. A shatterbelt appears when the competing major world powers have a foothold in a certain geographical region in which they seriously vie to establish dominance This is because they perceive strong interests in doing so and that there are available opportunities for creating a foothold for an alliance with the region's countries, which increases the likelihood of the dispute escalating into a proxy war between the major world powers. (10) Focus will be placed on the impact of these geopolitical formations and structures which have emerged in the Middle East and Asia regions; both ravaged by local disputes within a number of their countries. These formations and structures invite interventions on the part of outside strategic competitors in collaboration with local competitors, as is the case in the areas of dispute in the Middle East, including Syria, Iraq, Lebanon and Yemen, in addition to the South Caucasus and Central Asia. Therefore, the study will discuss how far these geopolitical formations impact the Iran-Israel conflict, given that the two are rival regional powerhouses in the mentioned regions, both forging patterns of alliances with local disputants there. These alliances are established through political options rather than specific regional characteristics, with the aim of encirclement at times and containment at others.

# The Geopolitical Map of the Middle East and the Iranian Strategy to Encircle Israel

The Middle East's geopolitical map has seen a host of accelerated shifts over the past two decades. These transformations have impacted the region's dynamics. The US invasion of Iraq and the so-called Arab Spring uprisings —which erupted in 2011 and 2012 — led to a decline in the role of traditional Arab powers such as Iraq and Syria. This enabled outside regional powers to increase their clout and activities, creating a foothold to fill the void left behind by these Arab powerhouses. Iran also embarked on significantly enhancing its clout in the region. Tehran began taking advantage of regional tensions and the geopolitical shifts to bolster its clout. As a result, several of the region's countries are now ravaged by dangerously destructive disputes (thus becoming shatterbelts) in a way that allowed Tehran to seize this moment to improve its positions in the region.

Thus, the continuing geopolitical transformations in the region are the result of:

- The US invasion and the conflicts that have ravaged the region over the past two decades.
- The events related to the so-called Arab Spring, which have led to the weakening and destruction of the main Arab countries in the region such as Syria, Iraq and Yemen.
- The decline in the US protective umbrella as a result of the Middle East decreasing in significance and priority for the US administration.
- The rise in the trend toward regionalism in global politics, which depends on the significance of regional powers and institutions as well as security alliances;

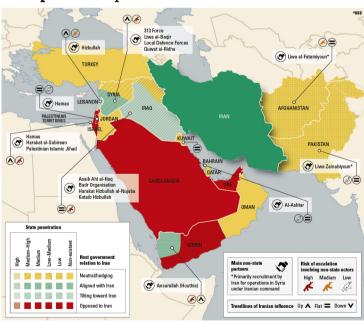
BRICS, the Collective Security Treaty Organization (CSTO), the Shanghai Cooperation Organization (SCO), the Eurasian Economic Union (EEU) and the Belt and Road Initiative (BRI).

• The rise of non-state actors involved in the political, economic and social processes of the region's countries.

All the foregoing has led to accelerating transformations in the Middle East. As a result, the chief regional actors (Iran, Israel and Turkey) as well as the global actors (the United States and Russia) have started looking for political solutions that take into account the new regional realities while at the same time protecting their own interests.

In light of this geopolitical regional reality, Iran has worked on consolidating and implementing its strategic culture to increase its clout and secure its interests in the face of US-Israeli clout in the region through its "forward defense strategy and "asymmetrical warfare doctrine." (11) The rationale of these doctrines is based on maintaining strong ties with political and military entities throughout the region (powerful government entities and non-state actors in Syria, Iraq, Lebanon and Yemen) as well as deploying forces and militias on the ground. This network is known as "the Axis of Resistance" by the Iranian leadership. (12)

By pursuing this approach and strategy, Iran seeks to push any potential military front as far away as possible from its borders as well as deter the enemy (Israel) from encircling it. Tehran also aims to maintain the ability to threaten, attack and engage rivals (Israel, the United States and Saudi Arabia) in an asymmetrical fashion through its proxies outside Iran. Tehran has already succeeded over the past decade in increasing its presence and clout in a number of the region's countries in the context of the so-called Shiite Crescent nations (Syria, Iraq and Lebanon). It gained a bigger foothold in Syria, thus increasing support for Hezbollah and entrenched its clout in Iraq (see Map 1). [14]



Map 1: The Map of Iranian Clout in the Middle East

**Source:** The International Institute of Strategic Studies (IIS).

Tehran is basing its strategy on the fact that the military capabilities of the United States and its partners surpass its own. This prompted Iran to abandon the notion of confrontation in all the main defensive spheres, instead focusing on the loopholes in the enemy's defenses. Iran also works to counter threats on distant borders, thus creating a military front far away from its borders. On the basis of these strategic approximations, Iran has developed tactics such as establishing the "Axis of Resistance," which includes a host of organizations and movements aligned with Iran in different parts of the region. Iran has established partnerships with non-government formations in its neighboring countries and has also created allied structures such as the Lebanese Hezbollah, the Popular Mobilization Forces (PMF) in Iraq, the Houthis in Yemen, which have added an opportunistic element to Iranian foreign policy. (16)

In this context, we will shed light on a number of pillars on which Iran's strategy has been designed to deter its rival Israel and encircle its lebensraum in the region:

- Enhancing the centrality of the Palestinian cause in Iranian rhetoric: In its strategy to enhance clout and counter regional and global powers, Iran combines ideology and pragmatism. In the case of the Middle East, the Iranian ideological rhetoric supportive of the Palestinian cause through confronting Western-American imperialism and manifesting hostility to Israel assists in providing a cover for supporting proxy groups in Lebanon, Palestine and Syria. (17) This rhetoric enhances the loyalties of these groups to Iran.
- Enhancing the military capabilities of proxy actors in the context deterrence: Iran is enhancing its military, particularly its missile arsenal and proxy actor capabilities throughout the region, to impose deterrence and counter US-Israeli clout. For instance, Iran provides the Lebanese Hezbollah with advanced weapons and missiles capable of striking deep into Israeli territory. This enabled Hezbollah to wage a costly war in 2006. Through the missiles it sent to Hezbollah, Tehran managed to deliver a message of deterrence to Tel Aviv, the core theme of which is that fighting with Tehran or Hezbollah will lead to massive losses for the Israeli home front. (18) Currently, Hezbollah continues to enhance its military capabilities with the help of Iran though not according to its desired pace or scale. However, Hezbollah managed to increase its firepower capabilities, develop a high-precision missile program and enhance its acquisition of drones and air defense systems. (19)

In other words, Iran, through Hezbollah, managed to plug the gap between it and Israel, which possess cutting-edge technological capabilities. This explains why the Iranian leadership is viewing Lebanon and Hezbollah as

two strategically significant actors for Iran, since they represent a chief pillar in its "Forward Defense Strategy" adopted for deterring potential foes. (20) On the other side, Iran is balancing the distribution of military support between the Syrian and Lebanese fronts. Several Israeli reports indicate that Iran has established facilities for manufacturing and providing missiles in Syria, which is a strategic target for the pro-Iran axis in the region, given that it represents the chief hotspot of supplies for Hezbollah. The Iranian leadership argues that in case Iran did reach Syria, it would have spent more money on its national security to protect its borders, eventually grappling with the implications of the conflicts that erupted in Syria and Iraq. (21)

Overall, the Iranian approximation toward Syria and Lebanon serves as a basis for its military campaign, waged in collaboration with Hezbollah, against Israel. During peacetime, it includes efforts to enhance military capabilities through the domestic production and transfer of weapons from Syria to Lebanon. During wartime, the campaign depends on fighters and reservists in Lebanon with diverse military capabilities (firepower, special forces, maneuvering forces, ground-to-ground missiles, antitank missiles, cruise missiles and drones). This is in addition to the reserve forces in Syria to strengthen the front in Lebanon. As a result, "Tel Aviv is waging a military campaign on the two fronts, while recognizing the reciprocal influence of operations in Syria and in Lebanon," according to INSS Strategic Analysis for Israel 2023. (22)

• Laying the foundation for a sustained military and societal presence: Iran seeks to bolster its military presence in its spheres of influence in the Shiite Crescent states. Over the past years, its military presence has been noticeably increasing through aligned armed groups or elements affiliated with the IRGC and Quds Force. According to some reports, Tehran dispatched advisors and personnel from the IRGC to Syria, with numbers ranging from hundreds to thousands. [23] It also mobilized approximately 20,000 fighters from Lebanon, Iraq, Afghanistan and Pakistan to fight in Syria. (24) In addition, Iran has carved out and enhanced its presence and clout within the Syrian army and local militias (the National Defense Forces (NDF) and Local Defense Forces (LDF) were established and trained by Iran). (25) There has been increasing Iranian interference in fields such as education and culture, as well as attempts to expand economic cooperation in the fields of energy, industry and trade. (26) This in addition to the influence exerted by Iranian proxies on the political balance of power in the three Shiite Crescent countries, thus undermining the possibility of establishing, maintaining and safeguarding national governments and systems. (27)

Related to these moves to enhance its regional clout, Iran seeks extensive

influence and aims to create a foothold in Israel's neighboring countries through establishing what is known as the Shiite Crescent or the "Axis of Resistance," not to mention the stalled nuclear talks. All these changes have raised Israeli security concerns regarding Iran's capabilities that enhances its deployment of proxies to wage potential attacks against Israel. Tel Aviv now viewing Iran's presence close to it in Syria and Lebanon, as well as its support for the Palestinian resistance factions (Hamas and the Islamic Jihad) as the primary challenge facing its security on the northern, eastern and southern fronts. The security assessments of the Israeli security and military establishments opted for addressing the challenges through laying out scenarios for handling a war on multiple fronts. This was voiced by former Israeli Army Chief of Staff Aviv Kohavi in a speech he delivered on September 25, 2019, in which he identified Iran and some of its proxies as the chief source of threat to Israel. He also indicated that a collision with Iran is nearly inevitable, asserting that the army is preparing for such a scenario. (28) To achieve this end, Israel has adopted the "campaign between wars" (CBW) strategy which it announced in 2015. This is based on waging limited military campaigns with the aim of aborting threats and imposing deterrence while avoiding escalation and moving to the level of full-blown war. (29) This appeared in the continued strikes conducted by Tel Aviv in Syria and Iraq, expanding the geographical scope of its attacks on Iranian targets since 2019. (30) Yet there has been an escalation in the shadow war between the two sides, which has been raging over the past six years, particularly in 2021, with the scope of operations targeting the Red Sea basin. Iran and Israel mounted mutual attacks on commercial vessels in this context. (31) Additionally, Tel Aviv has stepped up the targeted killing of major Iranian personalities working for Iran's military and nuclear complex such as the Iranian nuclear scientist Mohsen Fakhrizadeh. Moreover, Israel helped Washington by providing basic intelligence that enabled Washington to take out Quds Force Commander Qassem Soleimani, one of the IRGC's main extraterritorial arms. (32) There have also been some operations targeting the infrastructure of Iranian nuclear facilities, which appeared in the explosion at the Natanz nuclear site in the summer of 2020, which is believed to have been orchestrated by Israel's intelligence services. (33) This is in addition to the cyberattacks targeting Iran's nuclear installations, foremost of which was the Israeli cyberattack using the Stuxnet virus. which targeted the Natanz nuclear site in 2010. (34)

Tel Aviv and Tehran — whose position toward each other has remained unchanged over the past years — know that an open warfare scenario will lead to excessive losses for both sides. Yet the chances of Israel carrying out a strike against Iran on its own, without assistance from the United States, are minimal due to the geographical challenges related to the distance separating the two countries. Reaching Iran requires a passage permit from several countries, in addition to fueling aircraft after taking

off from Tel Aviv. (35) It could be said that the prospect of an open warfare scenario remains unlikely, especially as the world powers (European countries plus Russia and China), and to a lesser degree Washington, are not supportive of this scenario. This has prompted Tel Aviv to develop lowcost confrontation strategies such as the CBW strategy and the shadow war, opting for enhancing deterrence and imposing pressures on Iran. Israel has taken advantage of the geopolitical changes experienced by Tehran's neighbors in the north —the South Caucasus nations — which are suffering from shatterbelts as a result of border disputes, such as the renewed dispute between Azerbaijan and Armenia, in a way that allows Israel to infiltrate the region and find a foothold there. Israel is taking advantage of the fact that these countries are seeking to achieve balance among one another. Therefore, we find that there is Iranian-Armenian cooperation versus Azerbaijani-Israeli cooperation.

### The Geopolitical Map of the South Caucasus and Central Asia and the Israeli Strategy to Encircle Iran

The geopolitical variables in the international arena at present, in terms of the cutthroat competition between major world powers as well as the global order shifting toward multipolarity, are overshadowing the geopolitical map of the regions at the heart of the scene of this competition such as the Middle East, the South Caucasus and Central Asia (see Map 2).



Map 2: The Caucasus and Central Asia

Source: M. K. Bhadrakumar, "Russia Consolidates Its Position as a Black Sea Power: The US, NATO and Geopolitics of the War in Georgia," The Asia-Pacific Journal, Volume 6, no 9 (September 2008), accessed September 10, 2023,

According to the aforesaid Iranian vision to exploit these variables to enhance its regional clout and secure its security interests in the Middle East, particularly in the northern region bordering Israel, Tel Aviv seems to be seeking to pursue the same orientation, taking advantage of the geopolitical transformations in the northern part of the Iranian strategic region. Israel's aim is to achieve deterrence and undermine Iranian clout. Among the major variables on which Tel Aviv depends to implement its strategy in the region are the following:

• The US intention to counter the Russo-Chinese clout: In the context of current US efforts to enhance its security and preserve its standing as a dominant global power in light of the ensuing geopolitical changes connected chiefly to the Russo-Chinese rise, it is now working to expand its clout along the Russian flanks. (36) This is in addition to taking advantage of the geographical formations of the emergent geopolitical structures in these regions such as the shatterbelts arising from the border disputes of the countries neighbouring these regions. Therefore, the United States will help settle these regional disputes and support the balance of power to encircle its rivals (Russia and China) through alliances with their regional rivals. (37) The United States is leveraging the resistance on the part of Russia and China's neighbors to their expansionist clout to contain both revisionist powers. This would help create an encirclement (made up of nations) hostile to Russia and China and resistance to any further expansion plans.

Looking at the shatterbelts extending throughout the northern region of Iran's strategic neighborhood (in the South Caucasus and Central Asia), we find that the stimulus wars raging in these regions — foremost of which is the border dispute between Azerbaijan and Armenia — invite intervention on the part of outside strategic competitors such as Russia, the United States, Turkey, Iran and Israel. This intervention comes following agreements with local rivals within their specific frameworks of attempting to counter the clout of the other.

This is evident at present through the US moves in the South Caucasus region, illustrated by the extensive US communications with senior officials from the two major disputing countries in the region (Armenia and Azerbaijan).<sup>(38)</sup> This is in addition to the important signs of cooperation at the military level. The Armenian Ministry of Defense announced on September 6, 2023, the launch of military drills with the United States dubbed "Eagle Partner 2023," which were conducted as scheduled on Armenian territory during the period from September 11-20, 2023. <sup>(39)</sup>

These moves reflect the US approach that is modelled on the aforesaid checkerboard structure to support the balance of power against Russia in the South Caucasus region. The aim is to encircle Russia through forging close ties with its old ally Armenia and take advantage of the tensions en-

suing between Moscow and Yerevan, which is resulting from the growing Armenian awareness of the Russian abandonment of Armenia in its latest dispute with Azerbaijan.

• The Azerbaijani-Armenian dispute: The post-USSR sphere in the South Caucasus witnesses continuous tensions and escalations. Some shatterbelts associated with border disputes in these regions have emerged. Among these tensions are those between Abkhazia and Georgia, South Ossetia and Georgia Transnistria/Pridnestrovia and Moldova. The conflict between Azerbaijan and Armenia over the Nagorno-Karabakh territory is at the forefront of these conflicts, with roots dating back to 1992 when the two sides fought their first war, which Armenia won. The conflict resurfaced in 2020 when Azerbaijan was able to regain control of the disputed region. It is worth noting that the signs of the conflict are still visible today as a result of Azerbaijan's efforts to impose a siege on the Lachin Corridor and force the Armenians to leave Artsakh/Nagorno-Karabakh by isolating them from Armenia. (40) This was revealed during Azerbaijan's military operation to combat terrorism, which began on September 19, 2023, and targeted Armenian forces in the Nagorno-Karabakh territory, according to its statement. The Armenian Ministry of Defense disputed this, stating that it had no forces in the region. (41)

As a result of the transformations in the nature of the dispute between the two sides and the balance of power tipped in favor of Azerbaijan, this has coincided with some geopolitical shifts. These shifts are mainly related to restoring the role of the outside strategic competitors after agreements with local competitors, with the aim of imposing balance between the two sides. This has in turn facilitated the enhancement of the Israeli presence via Azerbaijan because of Baku's reliance on Israeli technology such as military drones. According to Azerbaijani President Ilham Aliyev, during a meeting with Israeli Prime Minister Benjamin Netanyahu in 2016, he reiterated that Azerbaijan had purchased weapons worth \$5 billion from Israel, including drones and satellite systems. [42] In 2017, the Stockholm International Peace Research Institute reiterated that Baku had purchased military technology from Israel worth \$127 million. [43]

This is in addition to reports indicating that Israel has an arrangement with Azerbaijan that allows the former to conduct potential airstrikes beyond its borders. [44] Iran has also repeatedly claimed that Israel is using Azerbaijan as a base for gathering intelligence on Iran, even alleging that Israel has an espionage station in Azerbaijan. [45] In 2012, after the assassination of the nuclear physicist Mostafa Roshan, Iran accused Azerbaijan of aiding Israeli intelligence. [46] Iran also levelled similar accusations against BakuinOctober2021. [47]

At present, Azerbaijan is seeking to isolate Iran by controlling the

Zangezur Corridor (annexing the Syunik region), which will allow Baku to be directly connected to the autonomous Nakhichevan Republic, thereby impeding Iran's outreach to Armenia. This is in addition to cutting it off from Russia and Europe, and even isolating it from the energy corridors in favor of the Turkish-Azerbaijani project. According to a media platform affiliated with the IRGC, the so-called Zangezur Corridor will pass through Armenia's region of Syunik, thus blocking Iran from establishing its strategic linkage with Europe and Russia.

• Turkish-Iranian competition: Given the shifts in Turkey's foreign policy, with it ushering in the concept of strategic depth, Ankara seeks a stronger geopolitical engagement with the Middle East and other regions. This is currently actively applied in the South Caucasus and eastern Black Sea. Turkey is seeking to achieve more geopolitical clout through its growing military cooperation with Georgia and Azerbaijan. Recent ventures of cooperation, such as building an overland corridor that reaches the Caspian Sea and establishing stronger military and energy ties, will enhance Ankara's footprint in the eastern part of the Southern Caucasus. [51]

These Turkish moves raise Iran's concerns, which always believes that the enhanced Turkish presence in its strategic neighborhood undermines its clout. This has evidently appeared in recent years in the aftermath of the Second Nagorno-Karabakh War in 2020. Turkish interests have been enhanced along the northern borders of Iran through the signing of the so-called Shusha Declaration in June 2021 by the Turkish president and his Azerbaijani counterpart in a ceremony held in Shusha. According to the document, an attack on each of the two countries is considered an attack onbothofthem. (52)

This is in addition to the signing of a memorandum of understanding between Turkey and Azerbaijan whereby the Turkish company BOTAŞ Petroleum Pipeline Corporation opened a tender for a pipeline to supply Nakhichevan with gas. (53) This supply route will curb Iranian gas sales to Azerbaijan. (54)

From a regional perspective, Iran fears Turkey's push for the creation of an overland corridor reaching Azerbaijan and the Caspian Sea. Turkey's intervention and the possibility of reaching its sisterly republics in Central Asia would be a devastating development. This comes especially following Azerbaijan's violation of the agreement signed on November 9, 2020. This violation took place on March 25, 2023, when Azerbaijani forces crossed the demarcation line in Shusha. The Azerbaijani army took control of several highlands between the villages of Gagzor and Zabukh in addition to a big region along the border. (56)

This emerging competition between the two regional powerhouses, in which the balance of power in favor of Ankara is enhanced, represents a

new gateway for enhancing the Israeli presence in the region through Tel Aviv's growing cooperation with Ankara. Turkish-Israeli relations saw a thaw in August 2022. Both Israel and Turkey announced the normalization of relations and the exchange of ambassadors. (57) This development could assist in establishing a new axis of cooperation in the South Caucasus region, whose members are Turkey, Israel and Azerbaijan. This could also pose a geopolitical threat to Iranian clout in its lebensraum in the northern region.

• Fraught Russia-Armenia relations: Currently, there are tensions between the two traditional allies Armenia and Russia in the aftermath of the recent dispute in the Nagorno-Karabakh region. Armenia views the neutral Russian position toward the recent dispute as abandonment of it. It also believes that the Russian position has led to an imbalance of power between it and Azerbaijan, which emerged victorious as a result of Turkish-Israeli support. These changes have led to greater Armenian-Western cooperation, particularly with the United States. On September 6, 2023. military drills between Armenia and the United States, dubbed "Eagle Partners 2023," were launched. There were also other indications, such as the visit on the part of the Armenian premier to Kyiv along with the UN secretary general and the provision of humanitarian assistance. (58) Yet there have emerged several reports that speak of Armenia's intent to withdraw from the Eurasian Customs Union and the Collective Security Treaty Organization.(59)

This has drawn Russia's ire, which summoned the Armenian ambassador and submitted a note of strong protest as a result of what the Russian statement described as unamicable steps taken in recent days. This included Yerevan's approval of Rome's statute of the International Criminal Court, given the timing of the Armenian recognition which followed the court's condemnation of Russia's President Putin and its callforarrestinghim. (60)

These Armenian moves are chiefly associated with the central tenet of Yerevan's foreign policy, which is the pursuance of a multiparty foreign policy. Armenia has always considered its asymmetrical reliance on Russia a burden that curbs the country's ability to maneuver in an increasingly multipolar global order. (61) This presents Tel Aviv with an opportunity to secure its presence in the international presence calculus equation of Yerevan, a traditional ally of Tehran, via the gateway of the United States.

• Tense Azerbaijan-Iran relations: Relations between the two sides are continuously tense. Tensions reached their peak when the Azerbaijani embassy in Tehran was stormed on January 27, 2023, an incident in which an employee was killed and two others wounded. (62) As a result, the embassy's staff and their families were evacuated on January 29, 2023, which is an additional proof of the deteriorated relations between the two sides. These tensions are rooted in several factors, foremost of which is the Iranian-Azerbaijani competition over oil resources in the Caspian Sea. Azerbaijan is preventing Iran from achieving its ambitions in the Caucasus.

Additionally, the Azeri minority living in Iran is one of the stimulants of tensions between the two sides. (63) The presence of the Azeri component in the Iranian demographic makeup is one of the sources of threat that Tehran fears could be exploited by Baku's international supporters such as Israel, Turkey and the United States to stir up secessionist disputes on its northern borders with Azerbaijan. This bargaining chip is used from time to time by Azerbaijan. In August 2022, several media outlets linked to the Azerbaijani presidential administration published articles and analyses claiming Baku had the right "reunite" with northern Iran. (64) It was remarkable when four of Ali Khamenei's representatives in Azerbaijan justified Baku's steps to reclaim Nagorno-Karabakh, saying it is "totally legal according to Sharia" and "complies with four decisions by the Supreme National Security Council." The Azeri minority and the competition with Azerbaijan over oil resources heighten Iran's concerns. (65)

As a result of these tensions and Iran's attempt to establish a counterweight to Azerbaijan through supporting its foe Armenia, Israel has been able over the past years to establish a foothold in Baku. These indications have evidently emerged in the increasing military cooperation between the two countries and Tel Aviv's provision of advanced technologies and weapons to Baku<sup>(66)</sup> as well as elevating the level of diplomatic representation between the two countries. Azerbaijan opened a new embassy in Tel Aviv in March 2023 and Azerbaijani Foreign Minister Jeyhun Bayramov and his Israeli counterpart Eli Cohen in a press conference on March 29, 2023, mentioned that Israel and Azerbaijan share the threats posed by Iran, accusing Tehran of creating a state of instability. (67) This development increased tensions between Baku and Tehran. On April 5, 2023, up to 210 Iranian lawmakers issued a joint statement in which they condemned the Azerbaijani move to open an embassy in Tel Aviv and send an ambassador to Israel. (68)

This is in addition to the reports speaking of Baku pledging to allow Tel Aviv to use its airports in case of carrying out any potential attacks on Iranian nuclear facilities. This is according to a report by the Israeli newspaper Haaretz in early March 2023, (69) which was denied by the Azerbaijani ambassador to Israel. (70)

Iran accuses Azerbaijan of facilitating Israeli activities along its borders, saying that Israel is exploiting the South Caucasus republics as a springboard for regional aggression and espionage. (71) In the aftermath of the attack carried out by Baku in September 2022 against Armenia, Iran

launched maneuvers on October 17, 2022, along the border with Azerbaiian dubbed "the Great Iran." (72) These drills occurred within the framework of the Iranian military doctrine of deterrence to reflect Iran's readiness to respond to any outside threat.

• The Great Game strategy in Asia: This strategy reflects the geopolitical changes resulting from the cutthroat competition between the major world powers, particularly the United States and China. The United States is seeking to counter Chinese clout in Asia through reliance on key countries in different geographical regions, especially in light of the strategic competition between the major world powers in these regions for dominance and clout in Central Asia. This comes in the context of the New Great Game, with a host of global actors vying for control and dominance over this region and its resources, particularly those located in the Caspian Sea, which contains huge resources of oil and gas. (73)

According to the US strategy of reliance on key countries, it is working on establishing new frameworks for multiparty alliances, which could lay the groundwork for new regional orders and integrated efforts against foes. (74) These frameworks, in turn, provide Israel with an opportunity to infiltrate into these regions through forging alliances with key countries there under the patronage of the United States. This is evidently reflected in the I2U2 alliance that involves India, Israel, the UAE and the United States, which was established during the visit of US President Joe Biden to the Middle East in July 2022. (75) The United States seeks to establish frameworks for its allies so that they become the main actors rather than the United States itself.

Though the clear aim of such alliances is to assist in containing growing Chinese clout in Asia, they will also address the security concerns of allied partners, including those posed by Iran. Alliances enhance the defense capabilities of its members. This was illustrated by the deployment of the missile defense system Barak-8 in the UAE's Al-Dhafra. And this is viewed as a clear strategic outcome of Israel-India-UAE cooperation. (76) It is expected that this cooperation and coordination will extend to other geographical regions including the South Caucasus.

These geopolitical shifts and aforesaid variables reflect the enhancement of Israeli infiltration into the geopolitical points of contact with Iran. The last of these efforts was Israeli Foreign Minister Eli Cohen opening, during his visit to Turkmenistan, which shares a 1,200 kilometer borders with Iran, a new embassy on April 19, 2023. (77) Therefore, the geopolitical factor, which is the primary variable at present in the South Caucasus and Central Asia, helps Tel Aviv to achieve its objectives related to deterring Tehran, encircling it in its strategic vicinity and threatening its security interests.

### The Future of the Dispute in Light of the Geopolitical Variables Between the Two Countries

The aforementioned shifts reflect the nature of crowd geopolitics in the Middle East, the South Caucasus and Central Asia as well as these regions' advanced positions regarding the accelerated changes in terms of the global distribution of power. The connection between the developments in the South Caucasus and the changing global order has revealed the reemergence of the region's deep bonds with the Middle East. The South Caucasus had been gradually isolated from the geopolitics of the Middle East since the establishment of Russian imperial rule in the region in the early 19th century. (78)

This connection is evident in the extensive interventions on the part of regional powers in the South Caucasus region in the affairs of the Middle East. The deep interference on the part of Russia, Iran and Turkey in the Syrian crisis led to reverberations in the Southern Caucasus. In addition, Turkish reliance on energy supplies from the Caspian Sea has increased. The Second Nagorno-Karabakh War in 2020 showed that the region is deeply linked to Turkey and Iran, particularly within the frameworks of cooperation at times and competition at others. As a result, the decisions they adopted for the Middle East were indirectly linked to their decisions for the South Caucasus.

Here, it is worth noting that this link between the two regions; the Middle East and the South Caucasus, at the level of regional power interactions, is also related to the involvement of greater powers in the South Caucasus to facilitate a change in the balance of power. Each of these powers is seeking to gain a greater foothold in Eurasian geopolitics. (79) This means that their geopolitical vision for the South Caucasus will be directly linked to the developments in the Middle East and relations with the West and China, which is currently occurring, especially in the context of the United States working to retain some of the elements of its clout to ensure the flow of energy resources from the Caspian Sea into Europe through circumventingtheRussianmainland.(80)

According to these geopolitical realities, a geopolitical connection has emerged between the spheres of competition and dispute between Israel and Iran through the Middle East, the South Caucasus and the Middle East. This is within the framework of each of the two sides seeking to secure its interests while tightening the noose around the interests of the other. However, in light of these geopolitical changes experienced by the global order, as well as the regional order, the equation of the dispute between the two sides are subject to several scenarios, which could be summed up as follows:

• **Avoiding an open warfare scenario:** There is a growing awareness on the part of Tehran and Tel Aviv of the high cost the two sides would pay in case they engaged in open warfare, especially in light of the internal challenges endured by each of them. Yet the variables of the regional and international geopolitical context are not ready for this scenario which would not be supported by any of the major world powers given the huge consequences for the stability of the global order and balance of power, making this scenario unlikely in the medium and long term. This comes especially in light of the failure of the attempts of Israeli politicians to prompt the United States to take the decision to wage all-out strikes against Iran. In addition, the US administration is inclined to resume dealing with Iran and reach a new nuclear deal. This makes it harder for Israel to exert pressure to take a firmer position toward Iran. As an alternative to this scenario, Tehran and Tel Aviv are resorting to the imposition of deterrence, sending mutual signals of deterrence through limited and tactical escalation which makes each of them understand the other's capabilities in case a dispute unfolds. This especially applies to Iran, which is well aware that if a war breaks out, it will be fighting against the United States, even if its direct foe in the war is Israel.

• Continued geopolitical pressure and encirclement: Both Iran and Israel have been working over the past years to develop strategies to impose pressures and geopolitical encirclement to the fullest in a way that achieves the desired deterrence without leading to open warfare. As part of the geopolitical changes experienced by the spheres of competition in which the two sides are involved, some developments have occurred. prompting each party to increase the effectiveness of the pressure on and encirclement of the other. For Israel, this has appeared in the development of its CBW strategy and the shadow war campaign it has been waging against Iran on the ground and at sea<sup>(81)</sup> through carrying out continued military strikes against Iranian targets in Syria and Iraq. There have also been cyberattacks targeting the infrastructure of nuclear sites, not to mentions the assassinations of nuclear scientists and military commanders. At the geopolitical level, Israel has worked to enhance the geopolitical encirclement of Iran through expanding ties with Iran's Arab neighbors in the region via the Abraham Accords. This is in addition to infiltrating into the geopolitical points of contact of the Iranian lebensraum in the region located at its northern borders. For doing so, Tel Aviv has developed ties with Azerbaijan and Turkmenistan.

Conversely, Tehran is seeking to exert pressure against Tel Aviv through encircling it on several fronts and developing the so-called "chain of fire" around Israel, which Iran is encircling through its proxy actors in the Shiite Crescent states. Through this encirclement, Iran seeks to counter the clout and threat not only of Tel Aviv but also of the United States and its Arab allies in the region. Therefore, Iran seeks to push the potential arena of confrontation away from its borders. At the geopolitical level, Iran is currently working on creating a counterweight to the Arab-Israeli agreements through ending all outstanding issues and cooling down tensions with its neighbors in the region. This appeared in the China-sponsored agreement to normalize relations with Saudi Arabia in April 2023.

• Countering the clout between the two sides via the axes led by the major world powers: As part of the Great Game strategy, in which the major world powers are jointly involved to counter the clout of rising powers, which appears evidently at present in the cutthroat competition between the United States and Russia and China, regional powers such as Iran and Israel are working to take advantage of this geopolitical development to enhance their room for maneuver. This is aimed to balance the strength and clout of each of them against the other via the axes led by the major world powers. For example, Tel Aviv is increasing its presence in some alliance frameworks being formed by the United States to counter Chinese clout such as the I2U2. Yet, Israel shall participate in the trade interconnection project announced by President Biden which will connect India to Europe and will pass through the Gulf states and Israel. (82) On the other side, Iran works to counter Israeli clout through the East axis made up of Russia and China. This evidently appears through the increasing cooperation and military support on the part of Iran to Russia in the Russia-Ukraine war. Additionally, Iran accepted the Chinese sponsorship of the normalization agreement with Saudi Arabia. Furthermore, Iran has expressed support for the regional organizations in Eurasia, which will be an alternative to the alliances and institutions led by the West, which comes in the context of enhancing regionalism to counter the clout of intervening outside powers.

### Conclusion

The geopolitical variables experienced by the global order, and particularly the regional orders in the Middle East, the South Caucasus and Central Asia, impose dynamics that control and guide the direction of the dispute between Israel and Iran. These dynamics contribute to achieving the trichotomy of "imposing pressure, mutual deterrence and strategic encirclement" as an alternative to an open warfare scenario between the two sides. This helps the two sides to manage the dispute according to the pattern of "limited and tactical escalation" in the short and medium term. The US role currently helps maintain the status quo to provide some security guarantees for Israel and its regional allies through what could be called the Monroe Doctrine which first appeared in 1823. This doctrine is a declaration that aimed to prevent the creation of shatterbelts by any non-American actors in Central America. It called for driving out Eurasian forces intervening as rivals of the United States — the latter was concerned, back

then, that its rivals would be able to replace its spheres of influence in North America. The United States is presently seeking to curtail the implications of shatterbelts spreading throughout the Middle East to reassure its regional allies and counterbalance other intervening international powers, particularly the Iranian presence. This has recently appeared in US movements in the region, particularly in the Shiite Crescent regions where Iranian clout reigns supreme. Several reports have referred to these moves. For instance, an August 2023 report referred to movements by US forces stationed at Ain Al-Asad Airbase in the western Iraqi province of Anbar and its intent to close the borders with Syria. This has coincided with the arrival of US military reinforcements deployed deep within Syrian territory. Yet some reports have spoken of US military movements in the eastern and southern Yemeni provinces, a move that occurred in sync with the arrival of American and British vessels to the Red Sea. Furthermore, other reports stated that the US Congress has debated over providing the government of Kurdistan with antimissile and air defense systems to protect the region from Iranian shelling.

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# THE IMPLICATIONS OF AZERBAI-JAN'S STRATEGIC PARTNERSHIP ON IRAN'S NATIONAL SECURITY

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### Introduction

Iran is located in a turbulent regional environment. Its land borders are surrounded by seven countries and maritime borders by eight countries. Its diverse surroundings provide Iran with a unique geopolitical position and great opportunities; however, there are risks. Iran is one of the countries in the region that faces the most direct and indirect confrontations. It always faces threats that impact its national security. One of these threats comes from Azerbaijan, a state in the Caucasus. This threat is fueled by a historical factor; large parts of Azerbaijan belonged to Iran's territories until the 1990s. Regarding geopolitical threats, Azerbaijan had been under the former Soviet Union's control and later forged strategic partnerships with major and regional countries hostile to Iran.

Iran believes that Azerbaijan's strategic partnerships with major powers such as Russia and the United States and regional powers such as Turkey and Israel, will change the balance of power in the South Caucasus, threatening its national interests and security. These developments raise questions related to how such partnerships and the extent of their impact on Iran's national security and interests. Given, their ramifications, it is expected that Iran will enter into a confrontation with Azerbaijan and its allies.

The theoretical framework of the study is based on the school of realism in international relations, specifically on the balance-of-threat theory; this theory is established on the assumption that states work to achieve a balance against the most threatening actors (states) not the most powerful ones. According to this theory, states take into account four factors or sources when confronting any threat that jeopardizes their security or interests; namely the overall strength of the state (the sources of threats), geographical proximity, offensive capabilities and aggressive intentions. As for the methodology, the study uses the case-study approach. It focuses on the implications of Azerbaijan's strategic partnerships on Iran's national security, complex relations, and challenging calculations in the volatile South Caucasus, where conflicts could erupt at any time because of the rivalry among regional and international powers and their interactions in the context of global balance of power calculations.

The study discusses four main topics:

Iran-Azerbaijan relations.

Azerbaijan - major power strategic partnerships.

Azerbaijan - regional power strategic partnerships.

The impact of Azerbaijan's strategic partnerships on Iran.

### Iran-Azerbaijan Relations

Iran-Azerbaijan relations are influenced by a critical historical factor. which is still impactful today. The South Caucasus was mostly under the control of successive Iranian empires. However, with the emergence of the Muscovy state in the 15th century and its quest for expansion, the region experienced changes. Its invasion of Astrakhan in 1556 marked the beginning of its advance toward the Caspian Sea and the expansion of its influence in the Caucasus. It is considered to be the beginning of contact or geographical rapprochement between Russia and Iran and the two empires' sharing of influence in the region. The northern part of the Caspian Sea was attached to Russia and the western and southern side of the sea to Iran.(1)

With the advent of "Peter the Great" and his policies to expand the borders of the Russian Empire, especially toward the south and the east, the Russians occupied Baku, Derbend and Rasht, taking advantage of the anarchy in the Safavid state in 1722. Russia also concluded an agreement with Shah Tahmasp II. Accordingly, other territories were ceded to Russia. However, renewed Iranian power, which was associated with the rule of Nader Shah and the relative decline of Russian power, forced Russia to evacuate most of the territories it occupied on the southern tip of the Caspian Sea. The signing of the Treaties of Resht in 1732 and Kenja in 1735

was the outcome of this victory. This situation continued until the end of the 18th century. The ruler of Georgia triggered great wars between Russia and Persia (now Iran), placing his country under the guardianship of Russia. Therefore, the ruler of Georgia abandoned Persia, which he used to depend on. These wars resulted in the loss of Persia. The first war led to the Treaty of Golestan in 1813, and the second war to the Treaty of Turkmenchay in 1828. Under the terms of these treaties, the Caucasus was separated from Iran, which includes what is today Dagestan, Georgia, Azerbaijan and Armenia.

Following the Bolshevik Revolution in Russia in 1917, the regions carved out of Iran in the South Caucasus resulted in the establishment of new states, namely Armenia and Azerbaijan. On May 28, 1918, the Azerbaijan Democratic Republic declared its independence. However, it was soon invaded on April 28, 1920, by the Soviet Army. After Azerbaijan was defeated, the Bolsheviks in Baku announced the establishment of Azerbaijan SSR. The Transcaucasian Soviet Federative Socialist Republic (TSFSR) was established on December 10, 1922. It consisted of Azerbaijan, Georgia and Armenia. On December 30, 1922, the Soviet Union was established. At that time, the Soviet Union included the Russian Soviet Federative Socialist Republic, Ukraine, Belarus and the Transcaucasian Socialist Federative Soviet Republic. The latter was abolished on December 5, 1936, and Azerbaijan was annexed directly by the Soviet Union. This remained the case until its independence in 1991 following the collapse of the Soviet Union. (4)

The "Islamic Republic of Iran," founded in the aftermath of the revolution against the shah's ruling system in 1979, shockingly received the news of the collapse of the Soviet Union and had conflicting emotions of joy and fear. On the one hand, it was free of a neighbor that had posed problems for it for over 200 years. This opened up space for Iran to communicate with the republics of Central Asia and the Caucasus, which were previously part of the Persian Empire — until the early 19<sup>th</sup> century. On the other hand, it was fearful of the vacuum that appeared in the mentioned countries and how they could be employed against it by the United States and its regional allies, namely Turkey and Israel.

The Republic of Azerbaijan, Iran's former province Arran (also referred to as Aran), was inhabited by Tatars until 1918 — the word "Tatars" was used by Russian sources. (5) It is located in the Southern Caucasus, adjacent to the western coast of the Caspian Sea, with an area of 86,600 square kilometers, or 46% of the total area of the South Caucasus. The language of the people is Azerbaijani, and the majority religion is Islam. (6)

### Azerbaijan — Major Power Strategic Partnerships

The nature and substance of strategic partnerships vary, especially in terms of their significance and purpose. A strategic partnership could be a strategic alliance and could be a tool that is part of a country's foreign policy that only alters in line with its political and strategic calculations. Azerbaijan's relationships with major powers could be understood within the context of its national interests, the pending threats after the independence of Central Asia and the Caucasus republics from the Soviet Union, and the security vacuum that emerged — particularly Iranian threats; Tehran was considering Azerbaijan as part of its territory. The following reviews some of these partnerships between Azerbaijan and the major powers: the United States and Russia, highlighting their significance, purpose and limitations.

### Azerbaijan-US Strategic Partnership

The United States recognized the independence of Azerbaijan on December 25, 1991. In March 1992, the United States opened an embassy in Baku. A few months later, Azerbaijan opened an embassy in Washington. Under the Clinton administration, the US-Azerbaijan relationship improved significantly, especially economically. During the presidency of George W. Bush, the two countries moved to a new level of strategic relations in light of the US global strategy, which prioritized the Middle East, South and Central Asia and the Caucasus region.

Azerbaijan worked to create an effective strategic partnership with the United States in order to receive support in the context of the Nagorno-Karabakh conflict with Armenia. It tirelessly proved that it was a reliable energy partner by meeting the expectations of the United States and Europe through participating in the Baku-Tbilisi-Ceyhan pipeline, Trans-Adriatic Pipeline project and Trans-Anatolian Pipeline project to transfer energy from Shah Deniz. Azerbaijan fully supported the United States in Afghanistan and Iraq by opening its airspace and deploying troops. (7)

Azerbaijan-US relations, however, witnessed some tensions. During the Obama presidency, relations between the two countries deteriorated because the US administration focused frequently on human rights issues in Azerbaijan. Consequently, the latter declared its disagreement with the US position and considered US statements as acts of interference in the internal affairs of Azerbaijan and a means of pressure. (8)

However, despite the turbulence in relations at some points, one cannot escape the fact that Azerbaijan is important to the United States, especially in terms of securing energy supplies and as a link in the energy transit route connecting the South Caucasus with Central Asia without the need to cross Russian and Iranian territories.

Azerbaijan welcomed the United States as an energy partner as well as all forms of economic cooperation. Azerbaijan also engaged in large-scale military cooperation with the United States and received defense equipment, services and training. However, the shift in policies during the Obama administration left Azerbaijan with a feeling of mistrust and the belief that the United States may at any juncture decline to continuously develop the active relationship with it. <sup>(9)</sup> This was demonstrated when Nancy Pelosi, speaker of the US House of Representatives, visited Armenia on September 17, 2022. She described Armenia as a "peaceful, prosperous and democratic" country, while condemning the Azerbaijani attacks on Armenian territory as "lillegal and murderous." <sup>(10)</sup>

### Azerbaijan-Russia Strategic Partnership

The South Caucasus, located in southwestern Russia, is one of Russia's peripheral environments or the so-called "near-abroad." The region plays a significant role in Russia's Eurasian policy. After the dissolution of the Soviet Union, Russia pursued a policy of non-interference in the external environment for almost a decade. However, since Vladimir Putin came to power, Russian geopolitical outreach was revived. This was part of Putin's strategy to restore Russia's global position. The increasing importance of the Caspian Sea, its geo-economic issues, investments, and the growing presence of Western powers in the established independent republics after the collapse of the Soviet Union, which Russia considered a vital space, convinced the Kremlin to reconsider its presence and relations with regional states, including Azerbaijan, where Russia was concerned about the growing influence of the United States. (11)

Azerbaijan worked to gradually improve relations with its larger neighbor Russia after bilateral relations were negative in the 1990s. Their advanced relationship helped establish a strategic partnership in the early 21st century. In Azerbaijan, Russia's military support for Armenia in the Nagorno-Karabakh conflict complicated relations between Moscow and Baku and made the development of effective bilateral relations with Azerbaijan difficult to achieve. However, positive changes in Russian foreign policy directions since the beginning of the third millennium, and the increasing number of high-level mutual visits, marked a new era of bilateral relations and cooperation resulting in agreements that established and then reaffirmed friendship and strategic partnership between the two sides. (12) This rapprochement bore fruit when a new Azerbaijan-Armenia war erupted again over areas in Karabakh on September 27, 2020, and lasted 44 days. The two countries concluded a

ceasefire agreement brokered by Russia, which provided for Baku to reclaim control over the provinces in the region. Articles 8 and 9 of the agreement provided for the restoration of all economic and transport links in the region. It also stipulated that Armenia should ensure the safety of transport lines between Azerbaijan and the Nakhichevan Autonomous Republic in order to ensure the free movement of citizens, vehicles and goods in both directions. The agreement indicated that transport vehicles should be surveilled by the border guards of the Russian Federal Security Service. "By the agreement of the parties, the construction of new transport communications connecting the Nakhichevan Autonomous Republic and the western regions of Azerbaijan will be ensured." (13)

Moreover, on February 22, 2022, Azerbaijan's President Ilham Aliyev and Russia's President Putin signed a declaration on the "alliance between the Republic of Azerbaijan and the Russian Federation" in Moscow. It included several points, namely the improvement of bilateral relations to a qualitatively new level, the agreement on the legal status of the Caspian Sea dated October 12, 2018, was considered as an applicable legal base for maintaining and strengthening security and stability in the Balkans. including energy and transport corridors and technology. (14)

Russia and Azerbaijan aim to develop strategic partnerships in various fields including politics, economics and culture. Russia is attempting to balance its role with the that of Iran and Turkey in the South Caucasus, including Azerbaijan. Through its foreign policy, Baku is trying to achieve some level of equity in its relations between Russia and the West, which is accused by Moscow of attempting to destabilize the South Caucasus through fueling the conflict between Azerbaijan and Armenia and separating Russia from its "near-abroad."

### Azerbaijan-Regional Power Strategic Partnerships

Azerbaijan has not only worked to achieve a balance in its relations with international powers to tackle threats and promote its interests but has also at the same time forged relations with regional powers to achieve a balance against Iran, its powerful neighbor.

## Azerbaijan-Turkey Strategic Partnership

Turkey is Azerbaijan's top partner. Turkey-Azerbaijan relations have flourished since the independence of Azerbaijan in 1991. Turkey was the first to recognize it. Bilateral relations have drawn closer since that time. The two countries are currently tied by projects in the political, military, economic, cultural and social spheres, while relations between the two peoples are embodied in the dictum: "one Nation, two states." (15)

On the military side, Azerbaijan and Turkey have signed several military training agreements. In June 1996, the two countries signed a cooperation treaty in the military, technical and scientific training fields in Ankara. The July 1999 agreement resulted in the deployment of Azerbaijani peacemaking forces to Kosovo within the Turkish Battalion. This was the first foreign mission of Azerbaijani armed forces. (16) Turkey has long supplied Azerbaijan with weapons and other military assistance. In 1993, Turkey closed its border with Armenia in solidarity with Azerbaijan.

In addition to military assistance, Turkey has also provided political support to Azerbaijan. In the summer of 2001, Iran's warplanes attacked Azerbaijani ships that were carrying out excavations in the southern Caspian Sea. Iran claimed that the fields were located in its territorial waters and later repeatedly violated the airspace of Azerbaijan with fighter jets. Turkey dispatched several fighter jets to Baku, which participated in a symbolic parade in Baku. This move demonstrated Turkey's support for Azerbaijan and mitigated the Iranian threat. Turkey has also played an active role in ending the refugee and internally displaced persons crisis in Azerbaijan. Starting from the 1990s, Turkey provided humanitarian assistance to the displaced Azerbaijanis and set up Turkish camps in Azerbaijan to provide relief assistance to war victims. Moreover, the Turkish government has provided thousands of scholarships to Azerbaijani students to study at Turkish universities. (17)

During the visit of Turkey's President Abdullah Gul to Baku in August 2010, the parties signed a new strategic partnership and mutual support treaty, which was passed by the Parliament of Azerbaijan on December 21 of the same year. In September 2010, Turkey and Azerbaijan signed another deal to establish the Turkish-Azerbaijani High Level Strategic Cooperation Council, aimed at increasing bilateral cooperation. Under the agreement, if a third party attacks either side, the two countries must provide military assistance to each other. The agreement also states that the parties are bound to strengthen "military-technical cooperation, arms supply and the establishment of infrastructure for possible joint operations in the future." (18)

In recent years, Azerbaijan and Turkey have held joint military drills. On July 29, 2020, the Turkish and Azerbaijani armed forces held comprehensive military drills in Azerbaijan, named "Turkish-Azerbaijani Eagle 2020," days after the outbreak of border clashes between Azerbaijan and Armenia. Commenting on these drills, Turkish Presidential Spokesperson Ibrahim Kalin stated that Turkey would hold military exercises in Azerbaijan, and there is indeed a military and security pact with it. He stressed that Turkey

was determined to support Azerbaijan till the end, no matter the source of the threat. (19) Both held joint military exercises called "Unshakable Brotherhood 2021." also referred to as "Unbreakable Brotherhood 2012" in Nakhichevan Province running from October 5 to October 8, 2021. It was directed against Iran. On June 15, 2021, Turkish President Recep Tayvip Erdogan and his counterpart also signed the Shusha Declaration on allied relations. It outlined a roadmap for several sectors: technology, industry, defense, energy, transportation and the economy. (20)

Along with the most visible aspects of the Turkish-Azerbaijani strategic partnership and the cultural and linguistic ties—given the fact that Turkey is considered as Azerbaijan's elder brother — is cooperation on energy supplies, including energy corridors. Azerbaijan's relative isolation from world markets as a geographically landlocked country prevents its natural resources from being exported. Therefore, as production increased. Azerbaijan was in need to build new oil and gas pipelines. This was supported by Western countries. The Baku-Tbilisi- Ceyhan oil pipeline and the Baku-Tbilisi-Erzurum natural gas pipeline contributed to cementing Turkey-Azerbaijan energy relations. (21)

One of the most important dimensions of Turkey's foreign policy toward the Caucasus is the policy of pipeline Turkification and energy transfer through Turkey to other places. The geopolitical and geostrategic location, the easy access to open waters and the location between East and West have given Turkey a privileged position. (22) Turkey attempts to connect its territories with Azerbaijan through corridors of energy and railroad. At the end of October 2017, the railroad between Baku, Tbilisi and Kars was officially opened to connect the three countries. It aspires to transporting 1 million passengers annually between these countries and goods up to about 6.5 million tons per year. (23)

Simultaneously, Turkey attaches importance to the development of trade and investment relations with Azerbaijan. Azerbaijani Prime Minister Ali Asadov stressed that about 5,000 Turkish firms are active in Azerbaijan. This, according to Asadov, indicates that Turkey leads the ranking of foreign firms in Azerbaijan. He added that "Turkish firms participate in about 450 projects worth \$17 billion in the state budget. More than 2,600 Azerbaijani firms operate in Turkey." Asadov referred to the participation of Turkish firms and their Azerbaijani counterparts in the reconstruction of the liberated areas of Karabakh. (24)

The Turkish-Azerbaijani partnership is strategic, serving the interests of the two countries and cementing their political presence at the regional and international levels.

### Azerbaijan-Israel Strategic Partnership

Since the declaration of independence, Azerbaijan has found in Israel a supportive state. It was one of the first among the newly formed post-Soviet republics to recognize Israel on December 25, 1991. Diplomatic relations were established between the two countries on April 6, 1992, when Azerbaijan became involved in a bloody conflict over the fate of the Nagorno-Karabakh region. In April 1993, in response to the Armenian occupation of Azerbaijani territories, Israel supported Baku in this conflict by providing Azerbaijani troops with stinger missiles. (25)

Azerbaijan was also economically fragile, politically unstable and militarily weak compared to neighboring Armenia. Therefore, Tel Aviv found an opportunity to help Baku develop its military arsenal. Due to the shock triggered by the defeat in Karabakh in 1994, Azerbaijan invested heavily in Israeli arms and looked for strategic partners. For Israel, the establishment of such a relationship with a non-Arab or Islamic country was a strategic goal and complemented its strategy of encircling its regional adversaries. [26]

In this context, the parties exchanged high-level official visits. Israel has evidently great interest in this relationship within the framework of its anti-Iran policy. During his visit to Baku in 2012, Israeli Foreign Minister Avigdor Lieberman described his country's ties with Azerbaijan as "more important for Israel than (the then existing relationship) with France." (27)

Over the past years, Azerbaijan and Israel have respected regional sensibilities. Israel has maintained its embassy in Baku since 1993. Azerbaijan refused to open a diplomatic mission in Israel. The Azerbaijani authorities have always interpreted this diplomatic imbalance by referring to "political restrictions." Azerbaijan uses the complex geopolitical situation, especially its proximity to Iran and membership in international Islamic organizations as reasons why it cannot open a diplomatic mission in Israel. However, the two countries have continued their cooperation in the security, military procurement, energy, communications, medicine, trade, educational and cultural fields. [28] In May 2008, the Azerbaijani president described relations between Baku and Tel Aviv as "an iceberg, nine-tenths submerged, away from the eyes of outsiders." [29]

But things have started to change recently. Azerbaijan officially opened its embassy in Israel on March 29, 2023, and Israeli President Isaac Herzog visited Azerbaijan on May 30, 2023, at the invitation of Aliyev. The latter said that the opening of the Azerbaijani embassy in Tel Aviv created "more opportunities to have closer interaction." Herzog's visit was a new step in the expansion of bilateral relations with Azerbaijan. (30)

In the field of armaments, Azerbaijan was Israel's second largest destination of arms exports between 2018 and 2022. These weapons, in particular precision aircraft and missile interception systems, played an important role in Azerbaijan's success in the second Karabakh War. (31) The volume of trade between Israel and Azerbaijan reached \$200 million in 2020. Between 2016 and 2020. Israel accounted for 69% of Azerbaijan's major arms imports. Azerbaijan's oil exports to Israel also grew and now account for more than 40% of its imports. (32)

The Azerbaijan-Israel strategic partnership is based on several pillars: Baku's need for weapons and military technology, Israel's need for energy and joint interests. Azerbaijan is home to the last remaining Iewish community in the Caucasus. Other factors that play an important role in the strategic partnership between Azerbaijan and Israel include shared concerns about Iran, the pursuit to balance relations with Russia, and the role of the Israeli lobby in supporting Azerbaijan in the United States, especially in light of the power that the Armenian lobby enjoys in Washington.

### The Implications of Azerbaijan's Strategic Partnerships for Iran

Due to the geopolitical and geo-economic factors, Azerbaijan's international and regional strategic partnerships have adversely affected Iran. In response, Iran has been forced to pursue various strategies to confront them.

# Impact on Iran's National Security and Interests

Azerbaijan is not an ordinary country for Iran, its northern neighbor. Baku has a strategic location, natural resources and a predominantly Shiite population. Since its independence, Azerbaijan has raised Iran's concerns. What adds uncertainty toward Azerbaijan is its strategic partnerships with countries that are considered to be hostile to Iran. Drawing upon realism. namely the balance of threat theory, Iran and Azerbaijan are both balancing the threat toward each other. According to Stephen Walt, states tend to ally against the most threatening opponents (states/actors) or simply threats rather than against the most powerful states. Walt argues that the level of one country's threat is affected by the following four factors (criteria): aggregate power (variables such as population, industrial and military capability, technological power), geographical proximity, offensive capabilities and offensive intentions.

Based on these factors (criteria), we will explore the impact of Azerbaijan's strategic partnerships on Iran's national security and interests:

**Aggregate power:** The greater a state's total resources (population, industrial and military capability, technological power), the greater a potential threat it poses. Iran's aggregate power indicates that it is superior to Azerbaijan. It has a vast area of 1,648,195 square kilometers (636,372 square miles), a distinct geopolitical location, an estimated population of 85.03 million people in 2021, (33) significant military capabilities, and great economic capabilities as it is an exporter of oil, gas and a lot of minerals. In spite of the detrimental impact of international and US sanctions on Iran, Azerbaijan is a small country. It has an estimated area of 86,600 square kilometers, a population of about 10.2 million people and modest military capabilities compared to Iran. (34) Hence, Baku works to balance the threats posed by Iran and Armenia by resorting to establishing special strategic partnerships, especially with Turkey and Israel.

Given the heated competition over economic opportunities and strategic corridors in the Caucasus, Iran has deemed the Azerbaijani-Turkish strategic partnership to be risky in terms of the implications on national interests, especially in regard to Turkey's support for the Zangezur corridor, which if implemented would pass through the border strip between Armenia and Iran, controlled by Yerevan. Baku wants this corridor to act as a link to Nakhichevan, a region in Azerbaijan between Armenia and Iran. This corridor will eventually pass across Turkish territory, connecting Azerbaijan and Turkey (east-west) through southern Armenia. Iran firmly opposes the establishment of this corridor because it will reduce the dependence of other countries on it in terms of goods and people transportation from Nakhichevan to the mainland of Azerbaijan, the Caspian Sea and Central Asia. In addition, Tehran is concerned that the corridor will cut off Iran's territorial access to the Eurasian Economic Union through Armenia, and Russia, one of Iran's most important economic partners.(35)

Geographical proximity: According to Walt, distance is important in determining a threat, the closer a country is, the greater the threat is. The majority of the Azerbaijani people are Shiite. The only thing separating them from the Azerbaijani community in northwestern Iran, who constitute 16% of its population, is the Ars River. Due to Shiite and Azeri national aspirations, Iran fears that they will pose a challenge to its national security. During the reign of the shah, Azeris established an autonomous authority in the Azerbaijan region for a year from 1945 to 1946. This was realized by the support of the Soviet Union, which was occupying northern Iran at that time.

Azerbaijan and Iran adopt two divergent political systems. Azerbaijan is a secular state The government is democratic and presidential republican in nature. Iran's government is complex; a mix of Islamic theocracy with

democracy. Some of the Iranian people tend to oppose (do not recognize) this theocratic ruling system, i.e., they tend to delegitimize it.

Iran does not see a threat from the Russia-Azerbaijan strategic partnership, because Iran and Russia have changed from rivals to allies due to the new geopolitical realities and are allies of Armenia, although they attempt to remain neutral in the conflict between Azerbaijan and Armenia. Armenia believes that any US-Azerbaijan strategic partnership endangers its national security and interests. The United States has worked to isolate and exclude Iran from Azerbaijan and the Caucasus depending on the policy of "everything without Iran," especially in the fields of energy, strategic corridors and military exercises and maneuvers.

Iran is also concerned about the presence of Israel near its borders due to the strategic partnership with Azerbaijan. Israel works to have an intelligence presence in Azerbaijan. Thus, Iran accuses the government of Azerbaijan of allowing Israel to spy on it and carrying out sabotage operations and assassinations inside Iran from or through the territory of Azerbaijan. Iran believes that Israel propagates Iranian danger to the South Caucasus both secretly and publicly. Israeli President Isaac Herzog during his meeting with his Azerbaijani counterpart in Baku in May 2023, said that they discussed in depth "the entire global and regional security structure that is endangered and threatened by Iran." (36)

Offensive capabilities: Walt believes that countries with offensive military capabilities are more dangerous than those with defensive military capabilities. Although Iran's offensive capabilities are far greater than Azerbaijan's, the latter has worked to remedy the imbalance in recent years. Although Azerbaijan declares that it aims to establish a defensive balance with Armenia in the conflict over Nagorno-Karabakh, Iran believes that it is also targeted by Azerbaijan's military capabilities, and its strategic partners, especially Israel in particular and Turkey — through espionage. assassinations and sabotage operations targeting Iran's nuclear program. Offensive intentions: This can be realized by provoking separatist movements. This is mainly due to the desire of a number of Azerbaijani officials to annex Iranian regions to their country on the basis of shared ethnicity. Aliyev angered Iranians when, in November 2022, he spoke about that region located in the north of Iran, which includes Azeris. Aliyev described them as "part of our nation," although Baku carefully refrained from making statements, Tehran could interpret this as support for a possible separatist movement. However, since the massive antigovernment protests began in Iran September 2022, Baku ramped up its rhetoric by referring to northern Iran as "Southern Azerbaijan." (37)

In fact, this name is inaccurate; for example, Azerbaijan itself was called by several names such as Arran before 1918 and it had not existed before this date. The name Azerbaijan was used only inside the territories currently located in the north-west of Iran.

### The Limits of Iran's Strategic Response to Threats

Iran seeks to preserve the regional balance of power in the South Caucasus and maintain the status quo. It is in the interest of Iran to keep Azerbaijan weak. However, the geopolitical realities point to change, especially in light of Russia's focus on Ukraine and the West's desire to replace Russian energy supplies with Azerbaijani ones.

In this regard, Iran's strategy to confront Baku and its allies has different dimensions, most notably the following:

Political and diplomatic containment: Against the backdrop of the attack on the Azerbaijani embassy in Tehran on January 27, 2023, the truck crisis, Azerbaijan's accusations of Iran recruiting individuals for the sake of espionage and attempting to disrupt Azerbaijan's constitutional order, establish Islamic law and assassinate Azerbaijani public figures, Iran responded through diplomatic channels and worked to overcome tensions. Iranian Foreign Minister Hossein Amir-Abdollahian visited Azerbaijan to reconcile, lessen tensions and explore avenues for cooperation.

Threats and the flexing of muscle: Iran has repeatedly declared its refusal to change the existing geographical borders. This was clearly disclosed by the statement of the Commander of the Iranian Army's Ground Forces Kioumars Heydari in 2021. He stated, "Iran is very sensitive to changes in the official borders of countries in the region, and considers it unacceptable. All the legal borders must be preserved. One country's weakness in preserving its borders does not justify the disruption of [the status quo] at the borders caused by the foreign aid another country receives. Iran will not allow this." (38) Iran also held military exercises for the third time in 2022, near the borders of Azerbaijan, sending a message that force as an option in dealing with threats from the northern front with Azerbaijan is not excluded.

**Economic containment:** Within the framework of Iran-Azerbaijan relations, economic aspects have always been of particular significance. Iran and Azerbaijan have concluded many agreements and memoranda to facilitate trade. These include a trade agreement, the encouragement and support of mutual investment deals, a memorandum for the avoidance of double taxation, a maritime trade agreement, a customs agreement, a land transport agreement and an air transport agreement. The issue of the rights sharing on the Caspian Sea was also addressed with other Caspian

countries by the 2018 agreement. (39)

Despite political tensions, Baku and Tehran have maintained strong trade relations. Bilateral trade increased from \$608 million to \$688 million between March 2022 to March 2023. Transit constituted a particular driver for improving relations. During a visit to Iran in July, Azerbaijani Deputy Prime Minister Shahin Mustafavev noted that international transport between Baku and Tehran grew by 58%, highlighting that thousands of Iranian companies are active in Azerbaijan. One agreement was also signed to complete the construction of a road bridge over the Astarachai River which separates the two countries. Amid increased tensions between the two neighbors, the project stalled in 2021. A multinational project is planned to link India with Europe and Central Asia via Iran and Russia. Land roads may pass through Azerbaijani territory. Against this background, Baku signed an agreement in 2022 with Moscow and Tehran to develop the initiative. (40) Iran proposes the "Aras Corridor" project which links Azerbaijan to the Nakhichevan exclave through Iranian territory instead of the Zangezur corridor. This strategy helps in reducing tensions through economic cooperation.

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# THIRSTY BORDERS: IRAN'S WATER CRISIS AND SECURITY CHALLENGES WITH ITS NEIGHBORS

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#### Introduction

Arid Iran is grappling with a severe water crisis, impacting its security and neighborly relations. This paper explores the roots of the crisis, including climate change, poor water management, population growth and agricultural practices and highlights the potential security challenges it poses to Iran's relations with its neighboring countries. The scarcity crisis extends beyond Iran's borders, with shared water resources leading to transboundary disputes and potential diplomatic tensions with neighboring countries. Collaborative regional efforts are crucial for alleviating tensions and fostering sustainable water management practices, thus mitigating the risk of water-related conflicts. Furthermore, the paper examines how the water crisis might influence Iran's foreign policy decisions and alliances in the region. Non-state actors could exploit water vulnerabilities for political gains, heightening the importance of understanding the crisis' implications for regional stability. In Iran, a serious water crisis has been a consequence of a combination of climate change and poor water management practices. Dams built for agriculture and hydropower

have compounded the problem, leading to the depletion of significant rivers, lakes and groundwater levels. Wide-ranging implications of this crisis pose dangers to both Iranian and global security. Millions of people have been displaced due to water stress, which has resulted in unstable drinking water supplies, lost livelihoods and social instability across Iran. Additionally, the water issue in Iran has strained ties with nearby governments like Iraq and Afghanistan since reduced water flows in these countries have exacerbated water crises there, potentially escalating hostilities. Adapting to climate change, managing water resources sustainably and fostering regional collaboration are all necessary to address the urgent situation. (1)

Iran's national security includes the protection of its water resources. Climate change and a lack of water supplies have made border regions less secure. Accurate geopolitical perspectives and coordination with neighboring countries are necessary for managing shared water resources. Establishing regional agreements and achieving regional convergence is key to tackling this issue properly. Economic prosperity and increased international clout can be a consequence of effective water resource policymaking. The political, economic, social and environmental issues in this region must be taken into consideration to accomplish the aforesaid. Iran has the second-highest concentration of neighbors in the world, behind only Russia, along its sea and land boundaries. About 22% of Iran's borders, or 1,918 kilometers, are created by rivers. The Aras, Tigris, Euphrates, Sarisu and Karasu are the five rivers that Iran shares both directly and indirectly with Turkey in its western region. When it comes to the Aras, Tigris and Euphrates rivers, Iran is regarded as a downstream country. Water resources are one of the most important environmental aspects that influence relations between Iran and Turkey because they are two powerful countries in the West Asia region. The location of both countries in the dry and semidry region of the planet increases the significance of the issue and creates difficulties between them. Dust storms are one of the inescapable effects of Turkey's numerous development projects, which include building dams on the Tigris and Euphrates rivers, causing significant environmental harm both inside Turkey and in neighboring countries like Iran. (2)

Iran ranks 14th out of 116 countries in terms of its water crisis, highlighting the challenging state of its water resources. The country currently faces periodic water tensions, which are expected to become permanent as the population continues to grow. Over the years, Iran's renewable water per capita has declined significantly, dropping from 5,500 cubic meters per capita to less than 2,100 cubic meters between 1961 and 1976, and further decreasing to 1,750 cubic meters in 2001. By 2006, with a population of around 70 million people, the renewable water per capita had reduced

to approximately 1,670 cubic meters per year. (3) Iran is recognized as one of the most vulnerable countries in the region with the highest water stress in the world. In absolute terms, Iran has a large population and more economic production in a region with a high-water harvest than in other Middle Eastern and North African countries. More than 90% of Iran's population and gross domestic product (GDP) are in areas where water consumption is approaching unsustainable consumption levels. Water productivity in Iran is low and a significant share of water is consumed in agriculture, and the economic returns of agricultural water in the country are among the lowest in the region. (4)

Since the beginning of the 21st century, Iran has experienced extended drying, which is manifested in the disappearance of lakes and wetlands and widespread water stress. Such episodes of drought, which are examples of "anthropogenic droughts" — water stress brought on or exacerbated by aggressive, opportunistic and unsustainable land and water management — are human-induced, as previously illustrated by the reduced surface water availability in Iran. (5)

### Food and Water: Crucial Challenges to Iran's National Security

Chairman of the Iranian Chamber of Commerce Gholamhossein Shafei designated food security as an important economic issue while the water crisis is the most significant challenge facing the country. The water challenge is considered a great danger to Iran's economy. Referring to reports of international organizations, especially the United Nations, regarding the water crisis in Iran, Shafei said, "The United Nations report shows that if Iran continues in the same way in the next 20 years, the idea of a living creature in this country is far from expected." Iran has 10 years to prevent this scenario. (6) Important challenges that the water crisis can cause the Iranian government to face in the future include forced migration and population change in some provinces. Forced migration will disrupt the demographic composition of some Iranian provinces. According to one official, the phenomenon of "land subsidence," caused by improper withdrawal of water and discharge of groundwater aquifers, will result in the forced migration of more than 37 million people to the west and north of Iran. With the concentration of facilities in metropolitan areas, preparations have been made for the uncontrolled increase of population in these areas. (7)

Due to the concentration of industries and factories that consume a lot of water in the central provinces of Iran, where most of the population is Persian, several metropolises in these provinces are seriously prone to water crises; Tehran, Mashhad, Isfahan and Kerman are in a more dangerous situation than other cities and Shiraz is also moving in this dangerous direction, intensifying the underdevelopment cycle in the country. The context of this dangerous underdevelopment cycle is that, on the one hand, water intensive-industries such as power plants, petrochemicals, steel and cement are located in the arid geography of the central plateau, which faces a scarcity of water resources and empty aguifers. On the other hand, the major products of these industries are used for two main consumer sectors, namely housing and automobiles. (8) Referring to the water crisis in northwestern Iran, Majid Asanlu, the representative of Zanjan in the Supreme Council of Provinces, said that Iranian officials have not yet come to the conclusion that Iran is suffering from a water crisis, and when the water runs out and there is not even a drop left, maybe some of the officials will wake up and see that there is a crisis in the country. (9)

In 2012, Iran had 316 dams, and by 2018 this number had risen to 647. In 2019, with the aim of directing water to drought-hit cities, Tehran announced a two-year plan to establish a further 109 dams. By 2020 the Sirvan region had a total of 18 dams. Arif Keskin, a Turkish researcher specializing in Iran, stated that the water crisis is a foundation of many problems between Iran and Turkey, including the unsanctioned movement of Afghan refugees into Turkey with Iran's assistance. Keskin told Al-Monitor that "Iranian officials try to portray Turkey's dam projects as the main reason of drought not only in Iran but also in Iraq and Syria." Thus, Iran feels that the actions of Ankara impact its national security directly. (10)

# Centralism, a Key Factor in the Iranian Water Crisis

Having more than 9,000 industrial units and the largest factories such as Foolad Mobarakeh and Zobahan, Isfahan is in first place among Iran's industrial provinces. However, the establishment of water industries despite water shortages and without considering the necessary criteria in a radius of 50 kilometers east, west, south and north of the city center of Isfahan has contributed to depleting the water reserves of the Zayanderud dam in recent years. Hence, the establishment of major water intensive-industries such as steel, iron and others has become one of the major concerns of water authorities in the country and the province. (11)

As claimed by Mohammad Nazemosadat, a member of the Agriculture Faculty of Shiraz University, the population of Iran has multiplied over the past 100 years, so if the amount of water is at least the same as before, it can be concluded that the pressure on water resources has increased over a period of 100 years. There have been no noticeable changes in rainfall, but we have seen an increase in the demand for water resources because of poor management practices and population growth. Against this backdrop, the Iranian populace has faced a great challenge. (12) Simultaneous

sanctions, and the lack of water and natural resources will increase the country's dependence on the import of crops and livestock and imported agricultural goods (including livestock and poultry feed).

Like other arid regions, Iran must begin regenerating water as a step in its ecological diplomacy. In doing so, Tehran will be able to work on climate adaptation, international security and ecological regeneration. Ecological services, namely pollination, health regulation, potable water and disaster buffering all depend on sustained water supplies. A lack of water will not only impact the environment but also socioeconomic and political stability. If Iran loses such stability, we will likely witness international. regional and domestic aggression from Tehran. Managing water security in the country is a necessary initial step in overcoming systematic instability within Iran's borders. The factors that have led to the depletion of water resources include: a failed policy of agricultural self-sufficiency along with neglect of available water and export development of agricultural products with high water needs, water-based employment, population growth plans, deployment of people in water-scarce areas and expansion of metropolises, unsuitable locations for water industries, poor water consumption patterns, neglect of water loss in the distribution network, existence of inadequate environmental and sustainable development laws/ policies and lack of a water market. Iran must consider various options for water import, transfer between watersheds, desalination of seawater and its transfer to the central plateau of the country. (13)

According to the Iranian Parliament's Research Center, it is only 20 years away from reaching the brink of water poverty. The report of the Research Center shows that water per capita in Iran will reach 976 cubic meters in 2040, based on a population of 106 million. This means that water will be rationed, and Iranians will no longer be able to drink a glass of clean water by opening the tap. According to international standards, when water per capita in any country reaches below 1,000 cubic meters, it signals a water crisis in that country. According to the report of the Research Center. due to climate change, Iran's water resources will face a drop of 300 cubic meters in 2040 bringing it to 976 cubic meters per capita from the current level of 1,200 cubic meters. (14) The demand for water resources has greatly increased because of Iran's rapidly expanding industrial activity. Agriculture, industry and mining are just a few industries that depend heavily on water. The problem of water shortage gets worse as the industrial sector grows because more water is being taken from water sources that are already scarce. The available water supply is further stressed by industries' poor water consumption methods.

Urgent resource management issues arise from Iran's switch to electric energy for agriculture and the country's diminishing groundwater supplies. Without providing incentives for water conservation, the continuance of significantly subsidized electricity for agriculture is predicted to worsen the cost imbalance. In parallel, it is expected that groundwater levels will keep falling, raising short to medium-term energy requirements for agricultural and government subsidies. This can put pressure on the electric power sector and result in increased greenhouse gas emissions. It is crucial to recognize depleting groundwater levels as a warning indication. To reduce long-term socioeconomic effects, including job losses resulting from the depletion of high or marginal-quality groundwater, adaptive agricultural water management strategies must be put into place. [15]

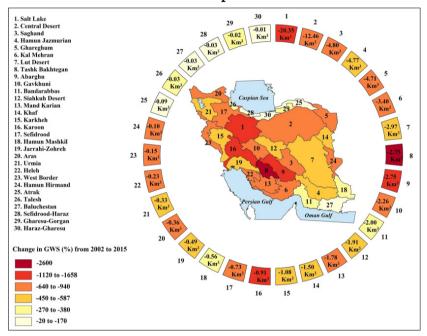
### The Impact of Climate Change on Water Scarcity in Iran

There have been some studies on how Iran's water situation is related to climate change. One of these studies predicts that climate change would significantly reduce Iran's water resources, including precipitation, accessible water, renewable water and groundwater, increasing the water shortage. Iran's climatic zones are all affected differently by climate change, with desert regions being particularly hard hit. To prevent environmental and socioeconomic problems, conflicts like those witnessed in African countries and complicated trade-offs in water distribution across sectors, urgent strategies are required to resolve the approaching water issue, particularly in dry regions. The vulnerability of individuals who depend on natural resources for their livelihoods rises due to the intensified effects of climate change on Iran's environmental water resources. To manage these tradeoffs and address geographical disparities in water scarcity, the government should prioritize regional development based on natural capabilities. (16)

Another research demonstrates the complexity of Iran's water difficulties, which are caused by both natural phenomena like climate change and droughts as well as man-made problems including ineffective administration, disorganized planning and misplaced development goals. Due to the socioeconomic drought that has resulted, there is a severe water shortage since demand considerably outweighs supply. Iran continues to invest in pricey structural solutions like water transport and desalination projects, despite their negative environmental and economic effects, rather than placing a priority on water conservation. Iran must shift from a "nature control" mentality to "nature management" and lessen its reliance on expensive technology fixes in order to successfully handle these issues. (17)

Reduced precipitation, more heat and higher evaporation rates are all effects of the area's ongoing temperature rise and relative warming. The

city of Mashhad has noticeably continued its warming trend. Indicators of maximum temperatures, such as hot days, tropical nights, dry spells and heatwaves are increasing as temperatures rise. Due to the city's increased demand for cooling during the summer, there has been a rise in pollution and the use of fossil fuels. On the other hand, based on daily minimum temperatures, cold days with frost and heatwaves have decreased. (18)



**Figure 1**: Anthropogenic Drought Dominates Groundwater Depletion in Iran

Source: Samaneh Ashraf, Ali Nazemi , Amir AghaKouchak, "Anthropogenic Drought Dominates Groundwater Depletion in Iran," Sci Rep 11, no. 9135 ( April 2021).

Groundwater depletion (in km3) in Iran's key basins between 2002 and 2015. Basins are arranged from greatest to smallest in the outer circle according to the total amount of groundwater storage that has been depleted in km3. Groundwater storage in percent was changed relative to baseline over the research period and is depicted in this figure using ArcGIS 10.8. (19) Recent climate change research shows that severe precipitation events are becoming more frequent and intense across many worldwide locations. In addition to struggling with severe climatic and human-caused droughts, Iran has also witnessed disastrous floods, including those in 2019 and 2022. Understanding the direction of change is still difficult because of

the intricate interactions between the various elements affecting flood frequency and size. To prevent future flash floods in Iran, it is imperative to reevaluate and regionalize the link between precipitation patterns and these floods. While previous studies have looked at long-term precipitation changes in various areas, little attention has been given to the relationship between trends in flood frequency and amplitude and severe precipitation events.(20)

### **Water Transfer Projects**

Since a comprehensive plan to resolve the water crisis has not been prepared by the Iranian government, the priority of governments in recent years has been to transfer water from the Arabian Gulf-Caspian Sea and from some border provinces of Iran to central provinces. The idea of transferring water from the Arabian Gulf to central Iran was raised after the revolution during the presidency of Hashemi Rafsanjani. But for the first time, Mahmoud Ahmadinejad made an official announcement in 2012: "It has been concluded that this issue has started in the provinces of Kerman and Yazd, and we are looking for its implementation in Isfahan as well. Despite the government's insistence on implementing water transfer projects, some experts believe that the amount of water transferred in the form of these projects is not commensurate with the amount of water required in residential, industrial and agricultural areas. By spending less than these costs, other solutions can be found to resolve the water crisis."(21)

# The Arabian Gulf Water Transfer Project

Some Iranian media outlets call this project a "super project," considering it the longest water transmission line from the Arabian Gulf to Sirjan in Kerman Province. The length of the line will extend for more than 800 kilometers in three stages in the three provinces of Hormozgan, Kerman and Yazd, but "17 provinces" will benefit from it. The executor of the project is WASCO with the investment and shareholding of Golgohar Mining and Industrial Companies and Chador-e-Mello and National Iranian Copper Industries. (22)

# The Oman Sea Water Transfer Project to Mashhad

One of the heaviest desalination and water transfer projects in the country was proposed on the last day of February 2016 in the form of a contract for water supply and transfer from the Sea of Oman to the eastern provinces of the country (Sistan and Balochistan, South Khorasan, Razavi Khorasan). Much was invested in the private sector, but it was eventually decided that 75% of the funding would come from the National Development Fund, with only 25% of the project cost going to the private sector. (23) The water

transfer project would start from Hormozgan Province and be transferred to Razavi Khorasan via Kerman and South Khorasan. This could help in the development of greenhouse industries and large industrial and mining units in these provinces. The important point is that the water extracted in this project would be cheaper when compared to that in the Arabian Gulf countries, including Oman and the UAE. The first line transports water from the Arabian Gulf to the provinces of Hormozgan, Kerman and Yazd, and its employment potential is estimated at 16,000 during the construction phase. In the second line, Arabian Gulf water would be transferred to the provinces of Kerman, South Khorasan and Razavi Khorasan. In the third line, the water of the Arabian Gulf would be transferred to the provinces of Yazd and Isfahan. In the fourth line, the transfer of water from the Sea of Oman to Sistan and Balochistan Province is predicted. This project will stretch over 820 kilometers with 11 water pumping stations. (24) A water transfer project is faster than a national one, which takes years to implement and consolidate; yet a national water supply has more lasting results. (25) Water is a regional issue because it is directly related to regional security. Although the issue is fundamentally technical in nature, its politicization complicates the matter. (26)

### Iran's Water Disputes With Its Neighbors

Iran's water crisis and regional stability are greatly impacted by disputes over water resources with its neighbors, particularly Turkey, Afghanistan and Iraq. These disputes center on shared river basins, which are important for supplying water to numerous countries and have the potential to cause friction and violence. For regional peace and sustained growth, Iran's disputes with its neighbors over water must be resolved. Finding equitable solutions is crucial to ensure fair water distribution and prevent tensions from growing into more serious geopolitical issues. Iran and its neighbors may turn disputes over water into opportunities for cooperation by encouraging open communication, diplomatic engagement and regional cooperation.

# Iran-Iraq Water Dispute

Significant water shortages in Iran are not only having domestic ramifications but also impacting relations with Iraq. The scarcity has worsened due to improper management of water resources, including massive dam construction and water transfers. As a result of the rapid water flows into Iraq, the western Iranian regions that border that country are currently suffering from severe water shortages. Iran's government has chosen short-term fixes over long-term solutions, failing to develop a

comprehensive water management plan. This has caused tensions among farmers in various regions as they struggle to secure water supplies. Concerns regarding Iran's water foreign policy and its capacity to address the crisis are raised by the absence of suitable legislation and agreements to manage shared water resources with neighboring countries. Concerns are raised by the fact that Iran has a "water mafia" that uses water resources to gain political clout and money. Iran's environmental problems are exacerbated by frequent sandstorms from Iraq, which highlights the urgency of taking urgent action to prevent potential water-related disputes and ensure the sustainable use of water resources in the area. (27)

Iran and Iraq share the Mesopotamia (Euphrates-Tigris) catchment area. Despite the many common water resources that exist along the long borders of the two countries, the main differences throughout history have been related to the southern borders and the Arvand River. The main reason for Irag's interest in having a larger share of the Arvand River and later in the invasion of the Khuzestan Province could be its short border with the Arabian Gulf. Former Iraqi leader Saddam Hussein's emphasis on Arab ethnicity in the Khuzestan Province was merely an excuse for greater access to the Arabian Gulf. However, despite several agreements signed between the two countries on the rights of Iran and Iraq regarding the Arvand River, differences remain between the two countries in this regard. (28)

For its domestic consumption and agriculture, Iraq primarily depends on the flow of water from upstream countries, notably Iran. Iraq's water security and agricultural output are impacted by Iran's water policies as well as upstream dam developments. In order to maintain equitable water distribution and prevent future conflicts, managing the water resources in this shared basin requires cooperation and communication between Iran and Irag.

It is claimed that Iran's behavior in using the water of the border rivers is in accordance with international law and has neither reduced the amount of water entering Iraq in any way nor caused any damage to this country. At present, and by 2009, the commission provided in Article 3 of the Agreement on the Use of Border River Water has been set up to determine the share of each of the two countries in the water of these rivers. Given that bilateral water agreements between Iran and Iraq are settled and signed, the settlement of disputes between the two sides is possible only through negotiations and bilateral agreements. Naturally, the general principles of international law on water can be the legal basis for negotiations. (29)

Regarding Iran's non-cooperation with Iraq over water resources in September 2023, Iraqi Minister of Water Resources Mehdi Rashid al-Hamdani stressed that the country had not reached any agreement with Iran on the share of Iraqi water. "We have evidence that Iran is digging tunnels and diverting water," Hamdani said, referring to the dispute over water with Iran. He added, "We have officially informed Iran of the violation of these laws, but we have not received any response from Iran."(30) Iran's management of water affairs in recent years has had a negative impact on Iraqi agriculture, and it is causing water shortage problems in the country. Dam construction also disrupts normal life and causes people to react. (31) In December 2022, as Iraq's water crisis continued and concerns heightened over the drying up of most of the country's rivers and wetlands, Baghdad announced that it would soon send a technical delegation to Tehran to negotiate with Iran the release of water from the Hoveyzeh Wetland. Iran and Iraq are facing upcoming dust storms, meaning that transboundary water management is critical for both sides. However, it is not possible to predict any outcomes from these efforts at this juncture. While it is hoped that the root cause of the problem can be tackled, this will require the inclusion of Syria and Iraq in discussions. To reach this point, Tehran and Ankara must take a pragmatic path and avoid dependence on rhetoric. However, pragmatism is limited as both Ankara and Tehran depend on populist politics to appeal to nationalist emotions to distract populaces from economic crises. (32)

### Iran-Afghanistan Water Dispute

The dispute between Iran and Afghanistan over the division of the Helmand River has remained unresolved for more than six decades. A satellite image that Spiegel Online was provided with by the private company Planet clearly shows that the Helmand River behind the Kamal Khan Dam in southeastern Afghanistan has been flooded for hundreds of kilometers. In recent years, Afghanistan has blocked the flow of water to the Hamun Lake by creating numerous dams and blocking earth dams on the Helmand River, causing drought in parts of Iran; for this reason, Iran should consider providing alternative water sources for the development of Sistan and Balochistan Province. Common border rivers and how to exploit transnational water resources, on the one hand, can be a point of contention and conflict over the guarantee of maximum unilateral interests, and on the other hand, can be the beginning of dialogue and cooperation for sustainable development in Afghanistan and eastern Iran. From a realistic perspective, Iran can use its leverage to force the Afghan government to fulfill its obligations. On the other hand, the two countries can continue their dialogue for years within the framework of a legal and political approach, however, both will lose the opportunity for economic development without much tangible and practical results. (33)

When the Kamal Khan Dam was inaugurated in March 2021, then Afghan President Mohammad Ashraf Ghani announced that the province of Nimroz would become a water reservoir for Afghanistan and Iran. "Afghanistan's water will now be sent to Iran in exchange for oil," he said Ghani announced at the opening of the dam that Nimroz Province would become a water reservoir for Afghanistan and Iran. "Afghanistan's water will now be sent to Iran in exchange for oil," he said. (34) Afghanistan is claimed to believe that by controlling its outflows to Iran, it can control Iran's behavior and political decisions regarding the sale of cheap oil and the reception of migrants. (35) The water crisis has been exacerbated by internal corruption. For instance, Iran's largest wetland, the Hor al-Azim Wetland which borders Iraq, has suffered major damage. Despite the Department of Environment raising objections, plans by the Ministry of Petroleum to examine the region for oil, saw the 120,000-hectare wetland drained. Despite this, seeking to keep costs low, the Ministry of Petroleum sought and was granted permission from non-specialist higher bodies to drain the wetlands. The draining of this wetland led to the widely destructive flood in Khuzestan Province in March 2019. (36)

### Recent Developments in the Iran-Afghanistan Water Dispute

The recent border conflict between Afghanistan and Iran has brought attention to the critical problem of water scarcity and tensions between the two countries. A dispute over the flow of water from Afghanistan's Helmand River into Iran led to border clashes. The Taliban regime in Afghanistan has been accused of deliberately depriving Iran of water, but it claims that a lack of rainfall and low river levels are to blame.

The water-scarce area of Iran runs the risk of becoming unstable, and current protests could worsen. Water scarcity makes the socioeconomic and political situation much worse considering that Iran is already facing a deep economic crisis, compounded by the tough US sanctions regime. Costly infrastructure expenditures as well as sustainable farming practices are necessary to help in mitigating the situation, however, both are difficult to proceed with given the existing financial restrictions and lack of adequate water management and agricultural policies. Cooperation, sustainable management, and diplomacy are essential to address the water crisis between the two countries. Upstream control gives the Taliban more power, which affects relations with Iran. Even while the situation is amenable to negotiation, it nonetheless poses a threat to regional cooperation and stability.(37)

# **Iran-Turkey Water Dispute**

The Tigris-Euphrates River dispute between Iran and Turkey is one of the

major water conflicts. This important waterway, which rises in Turkey and flows into Iran and Iraq, is shared by these countries. Due to its control over the headwaters, Turkey can alter the direction of water flow, which has an impact on both Iranian and Iraqi water supplies. Concerns about water shortages and damaged ecosystems in Iran and Iraq have been expressed because of changes in water flow and dam development in Turkey. These concerns are made worse by the lack of a formal water-sharing agreement and regional collaboration mechanisms. Transboundary water resources, particularly the Aras and Tigris rivers, are the source of rising tensions between Turkey and Iran. Iran accuses Turkey of building dams that could damage both Iran and Iraq by decreasing water flows. However, Iran will find it difficult to file a lawsuit without Turkey's involvement in The Convention on the Law of Non-Navigational Uses of International Watercourses (UN Watercourses Convention-1997). Tensions continue despite efforts to gauge water flow and address the problem together, complicating the larger geopolitical issues between Turkey and Iran. Continued diplomatic efforts and collaboration are needed to resolve the conflict and ease the region's water crisis.(38)

Turkey's construction of dams on the Euphrates and Tigris rivers, which has raised concerns about Iran's water supply, is at the crux of the dispute between Turkey and Iran. Tehran claims that Ankara is diverting water to its detriment and is seeking diplomatic talks to resolve the situation. Turkey contends that Iran's water constraints are the product of poor management, not because of the construction of dams, which Ankara asserts have assisted in reducing water scarcity during dry spells and fostering bilateral relations. Iran's water policies are criticized by its neighbors, and Iraq plans to lodge a protest about Iran's water policies with the International Court of Justice. Iranian officials accuse Turkey of escalating regional instability and blame Turkey's dam projects for the droughts in Iran, Iraq and Syria. This has further strained relations between the two countries. (39)

A dispute over transboundary water management could erupt between Turkey and Iran. Droughts and dust storms in Syria and Iraq are attributed by Iran to Turkish dam construction, although Turkey disputes this and charges Iran with improper water resource management. The Southeast Anatolia Project and the Ilisu Dam are at the crux of the tensions and a multilateral solution is difficult given the competing interests of the four countries. Iran wants to strengthen its bilateral ties with Turkey and forge an alliance with Iraq and Syria. However, the aforesaid initiatives have the potential of creating a larger strategic rivalry between Turkey and Iran, further complicating the situation. [40]

The water problem in the coming years puts the interests of four countries at risk. Unlike the other three countries, Turkey has not signed the 1997 New York Convention on the Law of the Non-navigational Uses of International Watercourses, making the issue even more acute and providing no basis for a multilateral approach. Even if Ankara was bound by an international convention, it is not clear how successful Tehran could be in mobilizing support for its position given its isolation on the global stage. (41) It is imperative that all parties prioritize regional collaboration and water diplomacy to resolve the water problems successfully. Distribution of water resources more fairly and their sustainable use may result from the establishment of formal water-sharing agreements and cooperative management structures. To build mutual understanding and find a peaceful solution to the water-related problems, Iran, Turkey, Afghanistan and Iraq must participate in diplomatic engagement and transparent data sharing. To ensure water security and stability in the region, regional cooperation is essential. This cooperation will help in fostering a peaceful environment where shared water resources act as a basis for cooperation and development rather than as a cause of conflict and strain.

# Lake Urmia Crisis: Iranian Water Politics, Ethnic Conflicts and **Environmental Degradation**

Due to the attention that successive Iranian governments devote to the central provinces, the issues of Lake Urmia drying up and the water crisis in Khuzestan Province have received less focus. There is a risk of re-drying. About 90% of Lake Urmia dried up before 2013. Although measures have been taken and there was a relative recovery after this date, the continual drought has slowed down this recovery process. In 2006, before drying up, it covered an area of 5,000 square kilometers, which in 2013 was reduced to 500 square kilometers, and the volume of water, which was 30 billion cubic meters, was reduced to 1 billion cubic meters. After the rehabilitation process, the volume of water increased from 1 billion cubic meters to 4 billion cubic meters and its area increased from 500 square kilometers to 3,666 square kilometers. Lake Urmia directly related to people's lives. If the lake dries up, life in the area will also dry up. According to the roadmap that was prepared, the desired natural balance of the environment will be achieved by 2027. The natural ecological level of the lake should reach an area of 4,400 square kilometers and its volume should reach 13 billion cubic meters of water. (42)

There is some academic research regarding the possible impact of the human factor and climate change on the lake's drying up. A study by Alizade and others shows that the lake and its basin are damaged more severely by human factors than by climate change. It was assumed in former studies that the ground water from Lake Urmia was very small; however, the mentioned study reveals that the groundwater seepage from Lake Urmia cannot be neglected. The most significant factors behind the shrinkage of the lake are drought and the rapid rise in agricultural activities. However, after 2014, there have been gradual improvements in climatic conditions. Moreover, the Iranian government has supplied the lake with more water. Changes in climatic conditions, agricultural development and population growth have all led to global environmental problems in recent years, particularly in countries like Iran where there are arid and semi-arid areas. Lake Urmia, which is one of the unique biosphere reserves in the world, has been impacted by the aforesaid in the last two decades. (44)

Khuzestan supplies 80% of the country's oil and gas for export and domestic consumption. The province has six customs borders, including the two important borders of Shalamcheh and Chazabeh. Why is Khuzestan important for the country? It is because experts believe that this province, with its 16 million tons of agricultural products, has a large share in the country's overall food supply. However, the great potential of this province has been neglected by successive Iranian governments. <sup>(45)</sup>

It should be acknowledged that agriculture cannot significantly affect the nation's economic growth and food supply if it uses a lot of water and produces little. Under these conditions, the government should grant funds for the import of agricultural items with high water requirements as well as the expansion of services and industries to promote economic development and conserve more water. (46)

#### Conclusion

Iran struggles with rising water shortages because of overpopulation and poor management in the social, economic and agricultural sectors. Iran is situated in dry and semi-arid regions with little rainfall. Conditions are becoming worse, especially in the southern regions, since neither the government nor society have taken the water situation seriously. It could be helpful to undertake further scientific analysis of the situation and learn from past global water management failures. Controlling urbanization, distributing the population fairly, boosting agricultural productivity, highlighting the value of water, fostering local cooperatives, involving farmers, boosting the industrial and service sectors and promoting widespread education on responsible water use are important measures for improvement. (47)

Regional cooperation and stability are significantly impacted by the water conflict between Iran and its neighbors, particularly Iraq and Af-

ghanistan. Shared water resources like the Tigris, Euphrates and Helmand rivers have been the subject of much discussion in the context of water allocation and management. Relations between these countries have been strained by disputes over water flows, dam development and water usage. Iraq's agricultural output and water availability have been impacted by the construction of dams in Iran, which has decreased water flows downstream. Existing tensions between the two countries have risen because of this. In addition, conflicting water demands and different approaches to water management have characterized the Helmand River dispute with Afghanistan. Iran and Afghanistan have suffered severely because of interruptions in the Helmand River's water flow, which has impacted agriculture, livelihoods and regional stability.

The water situation in Iran itself poses significant difficulties. There is a serious water shortage in many areas because of poor water resource management, excessive groundwater extraction and poor infrastructure. Khuzestan has had protracted droughts and water shortages. The Khuzestan problem has sparked demonstrations and instability, underscoring the critical need for efficient water management and infrastructural growth. Iran needs to give some important consideration to address its water crisis effectively. First and foremost, it is crucial to build strong frameworks for cooperation and water-sharing with neighboring countries. To ensure equal distribution and sustainable use of shared water resources, this calls for diplomatic negotiations, data sharing and collaborative decision-making processes.

Iran needs to alter its agricultural policies to find a lasting solution to its water crisis. It is advised to import agricultural items that require a lot of water to produce, such as wheat. Protests might be seen if the water crisis is not remedied soon. The water situation is being eased in Isfahan. To handle Iran's issues and disagreements with Turkey, Iraq, Afghanistan and other neighbors who share water resources with Iran, aggressive hydro-diplomacy must be used. For hydro-diplomacy to be successful, Iran's foreign policy must be changed. The balanced and sustainable growth of Iran should be the Iranian government's top focus rather than only the development of the core regions. Northwestern Iran and its inhabitants will undergo a geographical transformation as a result of Lake Urmia drying up. The primary issue affecting Iran's political stability is the water crisis. In order to alleviate the water situation, new technology must be used, and the way water is consumed in Iranian agriculture must alter. Iran should also implement cutting-edge water management techniques and technologies. This entails using effective irrigation methods, making investments in water infrastructure, and encouraging water conservation strategies. Iran can maximize its water resources and lessen the effects of water scarcity by minimizing water waste and enhancing irrigation efficiency. Agricultural policies need to be changed to encourage water-saving techniques. Reduced water use in agriculture can be achieved by encouraging farmers to use contemporary irrigation techniques, switching to less water-intensive crops and encouraging crop rotation. To make the transition easier, this strategy needs in-depth planning, farmer education and financial support.

Iran is experiencing a severe and unmistakable water crisis, which calls for quick mitigating measures to resolve pervasive water security challenges. Many of the therapies available today, meanwhile, are symptom-focused and short-term in nature. Iran must make significant adjustments to its approach to water management to prevent future catastrophes and secure sustainable water supplies. To create solutions with few side effects, decision-makers must understand the complexity of human-natural systems. While all emerging countries, including those in the Middle East, have the freedom to expand and modernize, it is unnecessary to repeat the environmental sins of Western expansion. Iran has a great chance to reduce the risks connected with the development of water resources by learning from the expensive mistakes made in the West, particularly in the United States and California. [48]

Finally, to solve the Iranian water situation, international cooperation and support are essential. Iran may access foreign know-how, technology and financial resources to implement sustainable water management methods. To support Iran's attempts to resolve the situation, international organizations and donor countries might offer technical assistance, finance for infrastructure projects and knowledge-sharing platforms. A diverse strategy is required to address the water issue between Iran and its neighbors as well as the severity of the crisis inside Iran. To resolve the water issues with neighboring countries, diplomatic involvement, cooperation frameworks and efficient water management practices are essential. To alleviate the water problem and ensure the sustainable use of water resources in Iran, infrastructure development, agricultural policy changes, and international cooperation are essential. Iran can contribute to regional stability, enhanced water security and the welfare of its people by putting these measures into place.

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# IRAN'S AGRICULTURAL POLICY AND THE FOOD SECURITY CONUNDRUM

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#### Introduction

The issue of food security has occupied considerable space on national and global agendas since the 1950s and 1960s. National and global policies were adopted to address widespread hunger and forms of food insecurity. However, several countries have failed to address this problem to varying degrees. This is due to several internal factors such as those related to the quality of agricultural lands, climatic impacts, adopted policies and sophistication of agricultural technologies. In addition, there are also external factors such as the nature of relations between countries, and the reality of the international grain market which has been and continues to be monopolized. Here arises the main conundrum of the countries that produce insufficient cereal grains; the chief source of nutrition for low and middle-income families. Therefore, grains are strategically important for the food security basket.

Iran is considered among the countries that is facing a food security problem. The problem is rooted in a set of overlapping internal and external factors meshing together to shape the nature and extent of the problem. However, Iran possesses massive potential and resources compared to several other developing countries. Over the decades, Iran has adopted a host of plans to achieve food security. It has also approved a package of measures to reduce food subordination to the global market. Iran has adopted agricultural development policies to develop the agricultural sector and achieve self-sufficiency in strategic crops, most important of which is wheat. It has also worked to expand the irrigated agricultural lands to ensure the stability of annual food supplies. All these policies. however, have proven insufficient to provide for the annually increasing food needs/demands of the Iranian people.

The study rests on one essential question: what are the factors that led to the creation of a food security problem in Iran? Why have the government's agricultural policies failed to address this problem despite the massive natural resources that Iran enjoys? The study presents three main assumptions clarifying the dimensions and causes of this problem. These are as follows:

First assumption — Inadequate investment in agriculture, the country's poor economic performance allied with the economic sanctions which are inversely proportional to the exacerbating food security crisis in Iran.

Second assumption — The poor rural economy is inversely proportional to the high levels of poverty and the increasing manifestations of food insecurity in Iran's rural regions.

Third assumption — The expansion of agricultural investment and the employment of agricultural technology are directly proportional to achieving food security in Iran.

The study is divided into four main sections: the reality of food security, Iran's agricultural policies, the factors contributing to the decline of Iranian approximations regarding achieving food security and Iranian social policy as an alternative to achieving food security in Iran.

# The Reality of Food Security in Iran

The reality of food security in Iran can be approached through two main concepts: agricultural capital and food security.

# **Inadequate Agricultural Capital**

As for agricultural capital, it consists of a host of natural and human resources, means and techniques that are used in agricultural production. The size of agricultural capital differs from one country to another. There is agricultural capital that is related to natural factors such as geographical location and climate as well as the size of agricultural areas available in a particular country. The other factors pertain to modern agricultural technologies, which have become highly important in enhancing agricultural capital. However, several underdeveloped and poor countries lack modern technologies, with farmers still employing traditional agricultural methods.

With regard to geographical location, climate and topography, these all have a significant impact on agricultural capital. The countries with huge annual agricultural production achieve this result not only because of sophisticated agricultural technology, but also because they possess massive natural resources that they exploit in a highly efficient way. This applies to Russia, China, the European Union and North America. Though several countries are endowed with massive natural resources, they have failed to achieve self-sufficiency in strategic agricultural crops for the food security basket. This is attributed partly to the limited investment in agriculture and outdated agricultural technology, particularly when it comes to chemical and biological technologies.

As for Iran, it could be said that it is considered to be a mountainous country, with the Zagros Mountains among the most important mountain ranges, which surround several basins and plains. Among them is the central plateau located in central Iran. But this plateau is made up of two desert regions: Dasht-e Kavir and Dasht-e Lut. (1) Among the most important plains that Iran possesses is the Qazvin plain and Khuzestan plain, which is 160 kilometers long and runs deep into Iranian territory for 120 kilometers. The Qazvin plain extends for 640 kilometers along the coast of the Caspian Sea, running 50 kilometers deep into Iranian territory.

Iran's climate in general is dry or semi-dry. About 90% of Iran's area is dry or semi-dry. (2) However, the Caspian Sea climate is considered to be moderate in summer and sees heavy rainfall in winter. The rainfall rate throughout the country reaches 250 millimeters per year, declining in some parts of the plateaus to 100 millimeters per year. But the Caspian Sea climate still sees heavy rainfall that reaches 13,00 millimeters per year. (3)

In light of the abovementioned realities (see Table 1), Iran suffers from a chronic climate problem. This, of course, has a direct impact on the agricultural sector. Thus, it could be said that Iran is a geographically unfortunate state. Iran is spread over an area of 17.5 million hectares, but the yield is limited, given the desert and mountainous nature of the country's terrain. The scant rainfall directly impacts the agricultural production process. Though Iran reiterates that it possesses 9.5 million

hectares of irrigated lands, it suffers from a water deficit reaching 81.3%. [4] This further complicates the issue of food security which needs huge and sustainable amounts of water.

Table 1: The Nature of Agricultural Lands, Agricultural Production and Agricultural Manpower

Total area	Area of Ag- ricultural Lands/Million Hectares	Area of Irrigated Lands/ Million Hectares	Production of Agricultural Crops/Million Tons	Agricultural Manpower/ Million People
1,648,000 million square ki- lometers	536 ,17	09,6	74,403	3,8

**Source:** Food and Agricultural Organization of the United Nations, Statistical Yearbook: World Food and Agriculture 2022, Rome.

### Lack of Food Security

According to the World Food Summit of 1966, the four main dimensions of food security are: availability (quantity, quality and diversity of food), accessibility (physical access and infrastructure and economic access), stability (exposure to food risks and incidence of shocks such as domestic food price volatility) and *utilization* (the ability to utilize food; access to water and sanitation and the outcomes of poor food utilization). (5) There are two approaches to achieving food security: the liberal approach that focuses on market priorities and competitive advantage granted by the international market in terms of prices rather than focusing only on domestic production. The national approach focuses on self-sufficiency in strategic agricultural crops to achieve food security. There are several concepts related to food security, the most important of which is *food insecurity*, which the Food and Agricultural Organization (FAO) defines as the state in which people lack access to enough safe and nutritious food for normal growth and development and to pursue an active and healthy life. This phenomenon (food insecurity) could arise as a result of food unavailability, poor purchasing power, inappropriate distribution and the inadequate consumption of food at the household level. Food insecurity is on the same footing with deteriorating health conditions and inappropriate care and feeding practices. It could be chronic, seasonal or transitional. (6)

The poverty index is considered among the major indices reflecting living conditions in any country. This is because it reflects the proportion of income allocated for spending on food and the financial stability of individuals for purchasing food items. Based on this, figures indicate that the food security landscape in Iran faces many problems, particularly in the rural areas (see Figure 1).

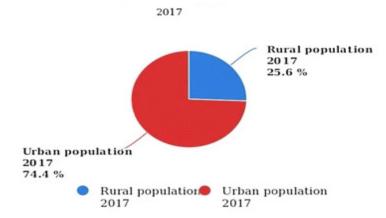


Figure 1: Rural and Urban Population (2017)

**Source:** Mohammad Emami et al., "Agricultural Mechanization, a Key to Food Security in Developing Countries: Strategy Formulating For Iran, *Agriculture & Food Security* 7, no. 24 (2018), September 26, 2023, https://doi.org/10.1186/s40066-018-0176-2

Poverty is staggeringly rampant in Iran's rural areas, as is the case in many countries. And it is inextricably linked to sustenance farming. It is also prevalent in suburbs though it is hard to precisely measure the poverty level in any country since it is a complicated sociological phenomenon. However, the World Bank issues regular reports on this phenomenon covering various countries worldwide, including Iran, in which the poverty index is soaring, particularly in the countryside and the urban peripheral regions (see Table 2). This has a direct impact on food insecurity. There are high percentages of pregnant women suffering from anemia and children suffering from malnutrition and dwarfism. (7) Poverty rates are high and differ from one region to another as do food insecurity indicators. Yet the Iranian food system lacks the ability to enable families to sustainably obtain basic food items, particularly during periods of international economic crises and droughts.

**Table 2**: The Poverty Rate and Number of Those Suffering From Malnutrition in Iran

Population Num- ber/in Million	(Poverty Line (2019 Annual Income Below \$2.15		Malnutrition population in Million /(2020)
	Urban areas	Rural areas	
87.29	27.6%	53%	3.4

Table 2 shows that the poverty rate in Iran in general is high. But it is staggeringly higher in the countryside in particular, which reflects the level of unemployment and social fragility. The table reveals that the number of people suffering from malnutrition exceeds 3 million. The number of individuals unable to secure healthy food surpasses 17 million. This is a huge number that reflects the deteriorating health conditions of the Iranian populace, particularly women who are pregnant and breastfeed. The increase in malnutrition exposes the level of the food crisis in Iran. which is directly reflected in the poverty index (rate) which exceeds 50%, particularly in the rural areas (see Table 3).

**Table 3:** The Manifestations of Food Insecurity in Iran in 2020

The Spread of Anemia Among Women aged 15-49	The Number of Individuals Unable to Secure Healthy Food/in Millions	The Proportion of Individuals Unable to Secure Healthy Food	The Rate of Moderate Malnutrition Among the Population	The Rate of Severe Malnutrition Among the Population	The Spread of Dwarfism Among Children Under 5
24.1%	17.1	20.3%	42.4%	7.7%	6.3%

Source: FAO, IFAD, UNICEF, WFP and WHO, The State of Food Sec--urity and Nutrition in the World (Rome, 2022).

Table 3 relies on a number of indicators to measure the phenomenon of food insecurity in Iran. Figures show that the food security situation is still

Source: FAO, Statistical Yearbook (Rome, 2022). "Poverty & Equity Brief: Middle East & North Africa, Islamic Republic of Iran," The World Bank, October 2022.

critical. The spread of anemia among women reflects the (deteriorating) nutrition reality. Iranian studies, for example, confirm that 56% of women suffer from anemia and a deficiency of zinc and Vitamin A, as well as a deficiency of vitamin D,<sup>(8)</sup> which negatively impacts the health security of children.

With regard to the correlation between agriculture and food security, and despite the significant improvement in the agricultural economy in Iran as well as the levels of food production. Iran is faced with a host of factors that impact its food security. The food deficit reached its peak in 2014/2015 and 2018 due to the drought, economic sanctions, poor economic growth as a result of COVID-19 and the decline in oil prices. (9) Yet a cursory look at Iranian agricultural production (74 million tons in 2020) shows that its agricultural economy is considered to be productive. However, the majority of the rural population live within the poor stratum. This is because the government does not give sufficient attention to rural development or the rural economy. It also reflects the absence of government technological and financial support as well as a lack of rural infrastructure. This all has negatively impacted the residents of the Iranian countryside as well as the rural economy. The weakness of the rural economy has impacted the food security of the population in general and the rural population, as a socioeconomic segment, in particular. This requires government intervention, but with different policies, primarily social policies as well as rural development policies to push forward the rural economy, obliterate poverty, wipe out population fragility, resolve food security problems and achieve social justice. This requires the pursuance of a comprehensive social policy that considers the Iranian economic system on the one hand and the imbalance in provincial development on the other. It should also seek to develop the rural and urban peripheral regions and work to ensure the provision of basic foodstuffs at prices affordable for poor families and vulnerable segments in general.

# Iran's Agricultural Policies

Iran has adopted five-year plans as mechanisms for agricultural development. Since 1989, the Iranian government has been adopting agricultural policies to boost grain production and end subordination to international grain markets, which are monopolized by a few. This is against the backdrop of tensions between Iran and major world powers. Thus, Iran has intervened through two methods. The first is through a pricing policy, setting a specific price for purchasing strategic crops from farmers, primarily wheat. The second is through providing direct financial and technological support for farmers. Iran has sought to boost wheat

production, for which it has allocated a considerable budget of \$1.5 billion. Iran has a cultivable area of 5 million hectares. The agricultural area allocated for producing wheat in general reaches 10.23 million hectares. (10) This figure reflects the extent to which the Iranian government is giving attention to strategic agricultural crops within the food security basket and its genuine desire to get rid of subordination to international grain markets. The wheat production rate rose from 5.7 million tons in 1989 to 11 million tons in  $2004^{(11)}$  and 15 million tons in 2020 (see Tables 4 and 5). (12)

**Table 4:** The Grain Production Rate in Iran (2020/Million Tons)

Wheat	Barley	Corn	Rice
15	0.3	1.4	0.2

Source: FAO, Statistical Yearbook (Rome, 2022).

Table 5: Production Rates and Grain Imports in Iran (2020)/ Million Tons

Production Rate	Import Rate	Food Trade Balance/In Billion Dollars	The Percentage of Subordi- nation to the International Market in the Grain Divi- sion/2017-2019
22,013	9,328	-4,087	%37,5

Source: FAO, Statistical Yearbook (Rome, 2022).

Tables 4 and 5 reflect the strength of the Iranian agricultural sector in terms of producing grain, which reached 22 million tons in 2020 despite the drought. Conversely, a cursory look at the food trade balance shows that it records a deficit every year. The increasing rate of subordination to international grain markets shows the true reality of the agricultural sector which is no longer capable of meeting the food needs of the Iranian people. The tallies by the FAO confirm that the losses of the agricultural trade deficit have more than tripled over the past two decades. In 2000, the country's trade balance posted a loss of \$1.619 billion while in 2010 the losses reached \$2.423 billion. The figures continued to be in the negative, with the deficit reaching \$4.087 billion in 2020. (13) This shows the amount of food imported by the Iranian government from the international market. The Iranian government has also announced modernizing the agricultural sector and supplying it with various technologies, whether mechanized equipment or chemical technology to increase production rates (see Table 6).

**Table 6:** The Use of Tractors and Harvesting Machines in Iran Between 1992 and 2005

Year	Number of tractors		Number of Harvesting Machines	
	Distributed	Available for Usage	Distributed	Available for Usage
1992	12.469	220.947	ط578	5.554
1993	8.296	214.653	534	6.024
1994	7.321	207.294	480	5.918
1995	4.217	196.084	113	5.806
1996	5.250	167.423	179	5.558
1997	4.715	136.337	220	5.253
1998	2.039	114.095	191	4.809
1999	3.917	91.991	280	4.532
2000	4.378	82.130	298	4.509
2001	7.474	84.578	363	4.763
2002	12.613	91.649	368	4.890
2003	14.111	97.808	452	4.780
2004	16.212	104.016	639	4.695
2005	16.890	108.527	701	4.818

**Source:** Afshin Amjadi, Amir-Hossein Jaizari, "The Mechanization of the Agricultural Sector in Iran," Journal on Agricultural Economy and Development 55, (Fall of 2015): 163. [Persian].

Table 6 shows the fluctuation in the Iranian government's support for the agricultural sector in terms of agricultural machinery. The Iranian government delivered 12,469 tractors in 1992, but this support declined to 2,039 tractors in 1998. In 2005, the number rose to 16,890 tractors. However, despite all this support, the agricultural sector experienced a decline in the number of tractors. The sector used to provide 220.947 tractors in 1992, which declined in 2005 to 108.527. The same applies to harvesting machines. The agricultural sector provided 5.554 harvesting machines in 1992, which plummeted in 2005 to 4.818. This is attributed to the rugged Iranian terrain and the lack of spare parts required for repairing broken-down machines. Despite all the government's efforts, several Iranian farmers continue to use traditional means of production, particularly the small farmers in the countryside who still depend on outdated agricultural methods. (14)

This reality shows the imbalance in the agricultural sector. Agricultural reform has not included all Iranian agricultural regions. It has been a rath-

er selective reform process that focuses on regions that produce massive amounts of crops, including the basins and plains characterized by huge amounts of water and fertile lands. Foremost among these is the Caspian Sea coast basin and the Khuzestan basin. The Iranian agricultural development policy has led to substantial changes in the agricultural sector, with Iran achieving significant progress in agricultural modernization and development. It also managed to increase the rate of grain production, particularly wheat, considered to be among the strategic crops. However, production remains limited, falling short of meeting public needs, particularly when considering climate shocks and drought. This is in addition to agricultural regionalism. There are several regions that continue to depend on outmoded means of agricultural production. (15) Yet there are limitations in biotechnology which if overcome could raise the productivity of each hectare, particularly in light of the extreme weather prevalent in some regions. Thus, Iran has failed to eliminate the food subordination to the international market, which accounted for 37.5% in 2020, a huge rate if compared to Iranian citizens' purchasing power, especially when considering the turbulent international context and rising grain prices. In addition, overlooking the rural regions has impacted the agrarian economy in general, and poverty in the countryside in particular. This has in turn profoundly impacted the food security index of the populace in rural areas.

According to the foregoing, it could be said that the Iranian food security index remains weak. Despite the production capacity of the agricultural sector and the growth it has posted, it remains unable to provide various kinds of agricultural crops at prices affordable for low-income segments. Furthermore, it appears that the agricultural sector today is subject to the law of "decreasing grain," particularly in light of the drought and scant government investments in the agricultural sector. This will lead to further subordination to the international market in terms of food, thus further risking the food security of poor families in the countryside and urban peripheral regions as a result of the unprecedented rise in the prices of food items, both locally and internationally.

# Factors Contributing to the Failure of Iran's Food Security Policy

Food security in any country is subject to a host of economic, natural, political and social factors. Each country has its own food security policy for which the government intervenes with various options. Iran is a country that falls within the middle-income category and adopts the policy of self-sufficiency in strategic crops to achieve food security. (16) However, this option has become elusive, with food subordination levels increasing every year amid a decline in the performance of the agricultural sector and an increase in demographic growth. The reasons behind the failure of Iranian methods to achieve food security could be summed as follows:

## **Natural Factors**

As previously stated, natural factors include limited natural resources, particularly in Iran's northern and southern parts, where fertile lands rarely exist. In these regions, there is scant government-sponsored agricultural investment and sustained agriculture due to limited natural resources and poor infrastructure. Therefore, poverty has spread in these regions, which directly affects food security. Extreme droughts on an annual basis have significantly impacted the Iranian agricultural sector, particularly climatic changes and soaring temperatures, which have caused a decline in agricultural irrigation capabilities. Additionally, Iran's water share from the Helmand River, which emanates from Afghanistan, has also declined. (17)

### **Economic Factors**

This is due to the poor performance of the Iranian economy in general, particularly with the escalation of the economic sanctions and the consequences of the COVID-19 pandemic. These factors have negatively impacted public investments, exacerbated inflation, increased unemployment and undermined food security. The economic factors particularly include the following:

Weak rural economy: This negatively impacts the livelihoods of villagers in general as a result of rampant unemployment and manifestations of food insecurity. This requires a specific focus on rural development policies and the agrarian economy. Therefore, a robust food system in rural regions can maintain food stability during times of food crisis. (18)

*High costs of agricultural production:* This is because of the increase in the prices of agricultural inputs, which has in turn raised crop prices. This has also negatively impacted the Iranian people's food security. (19)

*Crumbling infrastructure:* This particularly includes the dilapidated roads, agricultural extension systems, agricultural irrigation systems, systems of transport, storing and packaging, which results in the devastation of more than 30% of agricultural crops per year. Moreover, the excessive use of fertilizers and pesticides as well as the lack of cleaning and treatment operations have led to a considerable decline in cultivated lands. (20) This has negatively affected the whole process of cultivation, completely eroding farmers' incomes.

Average value of food production and food energy supplies: These considerations have a significant impact on any nation's food security. The cost of producing food and the average per capita income are just two of the many reasons for the failure of Iran's food security policies.

This consequently impacts the overall number of calories a person consumes, making it harder for him/her to obtain the energy needed to lead an active, healthy life. This has an immediate impact on food security, leading to widespread malnutrition. (21)

# **External Factors**

International factors have contributed to complicating the food security problem in Iran, given the ideology adopted by the ruling elite, regional ambitions, relations with major world powers and the volatile global context. The impacts of the external factors could be summed up as follows:

Massive Iranian spending on the military sector and regional disputes: This has negatively affected government investments in the social and economic fields. The more intense the regional disputes, the higher the defense budget and the lower the expenditure on social welfare. Therefore, families get impacted, particularly those not earning incomes that enable them to meet the basic food requirements. (22)

Economic sanctions: Just as Iranian food security hinges on economic performance and the international market, the sanctions imposed since 2018 have significantly impacted food security. After the US withdrawal from the nuclear deal in 2018, the Iranian currency lost more than two thirds of its value, thus causing inflation to soar. This has triggered unprecedented surges in the prices of foodstuffs, which have negatively impacted the country's food security. (23)

International crises: Despite Iran benefiting from the Russia-Ukraine war as a result of the rise in oil and gas prices, this surge has brought with it unprecedented spikes in food prices on the global market. This is because Russia and Ukraine are considered two major contributors to global grain markets. Russia alone contributes more than 42 million tons to global grain markets (wheat, barley and corn) while Ukraine's exports exceed 50 million tons — for the same crops — according to 2020/2021 statistics. (24) Regarding oilseeds and sunflowers, the two nations hold a combined 50% global market share. The war and port closures made it difficult to harvest and export all of Ukraine's crops, which resulted in a decrease in the supply of grains on the world market.

The FAO<sup>(25)</sup> reports that food costs have increased by 8% to 22% as a result of this accelerated dynamic. The price of a wheat ton shot up to €440 right after the Ukraine war started, almost double what was recorded in 2021. However, costs started to go down and eventually declined to €330 per ton. (26) Naturally, this has an effect on the countries that import food, such as Iran. The nation is currently importing inflation, which compounds

the inflation that is already present in its economy. As a result, Iranians' purchasing power has been impacted, chiefly affecting their food security to varying degrees. Those who lack a stable income always suffer the consequences of these shocks to the food system. Though the Iranian food system is able to withstand the storm, given that the government benefits from the rise in fuel prices, it remains unable to assist poor families in meeting their food needs.

Overall, it could be said that the tallies show that Iranian food security profoundly depends on imports. For example, the rate of Iran's reliance on grain imports reached 28.7% in 2014 and the country's food imports remain high. Iran's exploitation of water resources, which are 70% above the global average, remains ineffective. At the same time, 74% of Iran's territories, nearly 120 million hectares, are uncultivable. Over the coming years, it is expected that the amounts of water will not even suffice this small area of cultivable land. These circumstances, coupled with the international political issues and foreign policy, make the future of agriculture and food security in Iran more difficult and challenging. Given these circumstances, Iran should determine the current challenges, putting more focus on the future of food and agriculture. (27)

# Social Policy as an Alternative to Achieving Food Security in Iran

Social policies differ from one country to another, which depends on the history of each country, the degree of its economic advancement and the implemented social welfare model. The majority of the developed countries work to ensure a minimum level of social services to the whole population, such as education, healthcare and nursing services. However, there are measures in Iran that protect the poor from social neediness. (28) Assistant Professor of Sociology and International Studies at Boston College Mohammad Ali Kadivar argues that the direction of Iran's social policies reflects an apparent overlap between oil prices, rising GDP and the reduction of poverty. (29) However, if this is the approach adopted with regard to the various social policies pursued by the Iranian government to curtail poverty, it means that its policy of redistribution remains insufficient and lacks comprehensiveness, particularly in the rural regions, the urban peripheral regions and those regions deemed ideologically opposed to the ruling elite, where the government's investments decline while poverty and political instability rise.

After the failure of the efforts for achieving self-sufficiency and the manifestations of food insecurity, the Iranian government established the Supreme Council for Health and Food Security in 2004. (30) The program

dubbed "The National Plan for Economic, Social and Cultural Development 2011/2016" was put into action. It aims to ensure the food security of all the Iranian provinces. (31) However, the lack of coordination among the various ministries, ignoring its recommendations and the lack of a response system have all impeded its activities. (32) Therefore, food security in Iran remains a source of crises. The Planning and Management Organization remains the most important government institution that works toward social development and curbing poverty. It cooperates and coordinates with the non-governmental charitable organizations. (33) Assistance is provided to the poor and those deprived in Iran. But the reach of these associations and their connections with the various social contexts determine the extent to which they can equitably distribute aid. This aid is considered a voluntary activity on the part of the association, meaning that refraining from providing it — out of negligence or selectiveness in distribution — will not result in accountability. At the same time, they mitigate the suffering of the poor and ease their anger at the Iranian leadership's political performance.

In Iran, there are several charitable organizations that work to aid the disenfranchised classes, foremost among which is the Imam Khomeini Relief Foundation (IKRF). (34) The foundation distributes various kinds of assistance to the disenfranchised segments, particularly those impacted by natural disasters such as floods, earthquakes and other catastrophic events. The IKRF plays an essential role in bolstering Wilayat al-Fagih's legitimacy; however, it provides important aid to disenfranchised citizens. securing a decent life for them. The foundation is responsible for 92% of the aid distributed throughout the country and it receives financial transfers from the government as well as volunteers inside Iran. There are other organizations that emerged after the 1979 revolution such as the Martyrs' Foundation (Bonyad Shahid) and Injured Veterans Foundation (Bonyad-e Mostazafin-va-Janbazan) — these organizations are based on the religious affinities of Iran. (35) It is true that these organizations play a role in addressing the shortfalls in the country's social welfare policies, but rising poverty rates, which have significantly impacted the food security of Iranians, expose the extent of the crisis that they suffer. Therefore, signs of the crisis have begun to emerge in the form of successive protests in a number of Iranian provinces.

### Conclusion

To conclude, the Iranian people are suffering from a food security problem at varying degrees, depending on the region where poverty prevails. This

crisis will continue to intensify as long as there is a global economic crisis, economic sanctions on Iran and regional and global tensions. However, food security is impacted by the decline in oil prices. It is true to say that there is an agrarian economy in Iran which has enabled the state to build a food system that largely depends on self-sufficiency. However, this system fails to enable poor families to secure their food needs at affordable prices; it has also failed to plug the food subordination gap which widens every year as a result of the natural factors related to drought as well as demographic factors. In addition, there are factors related to the Iranian economy, international economic relations and the nature of the Iranian budget, the majority of which is allocated to armaments rather than the economy and social welfare.

Ending the conundrum of food insecurity in Iran begins with outlining comprehensive policies for all sectors which work to address poverty and social deprivation, particularly in the rural regions and the urban peripheral regions. This will entail increasing investments in the agrarian economy and working to build the rural economy in its various fields. Iran also needs to lay out a policy for social justice that will enable all citizens to meet their food needs to lead a healthy and active life — in all regions and sustainably.

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