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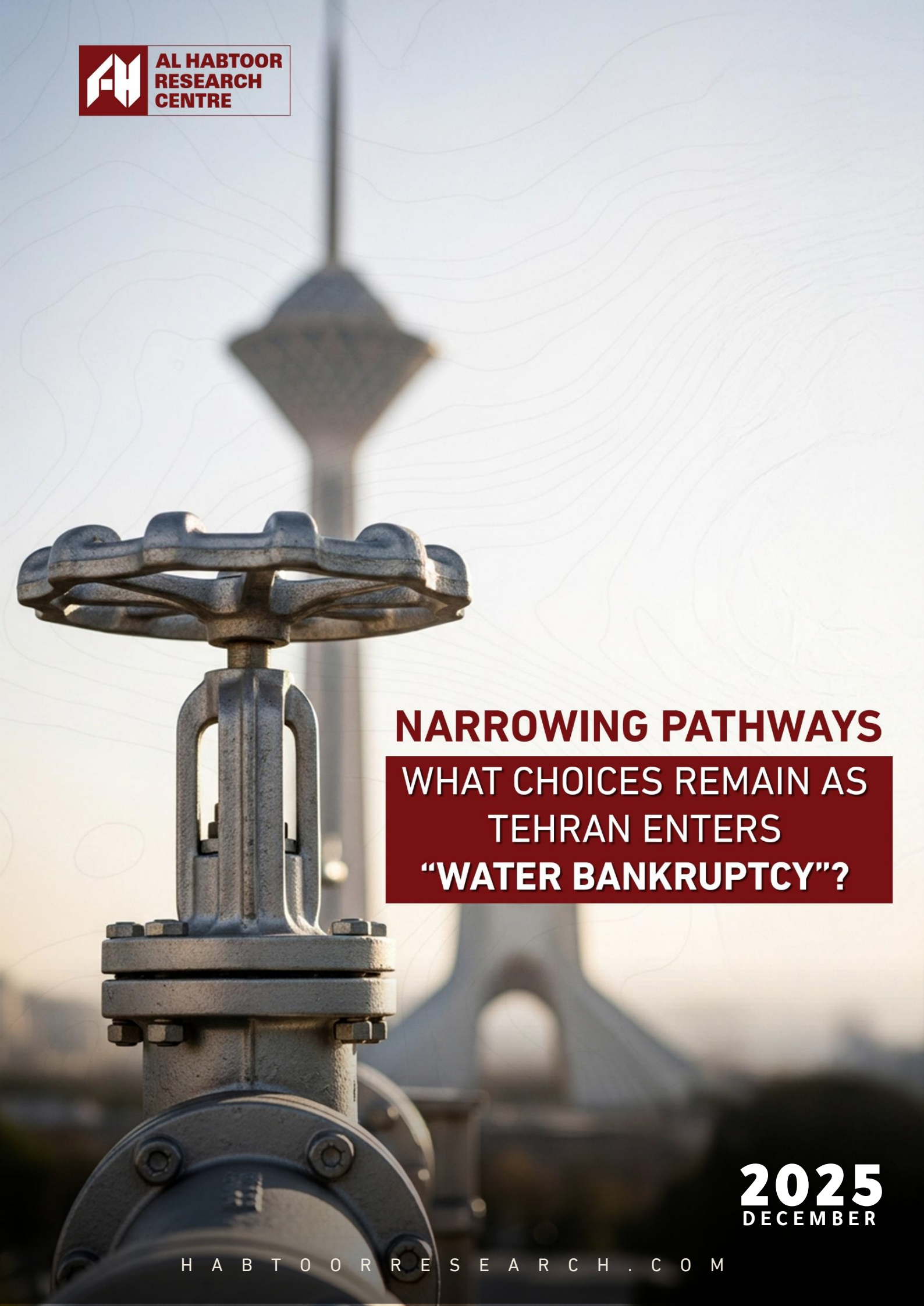

NARROWING PATHWAYS

WHAT CHOICES REMAIN AS TEHRAN ENTERS "WATER BANKRUPTCY"?

2025
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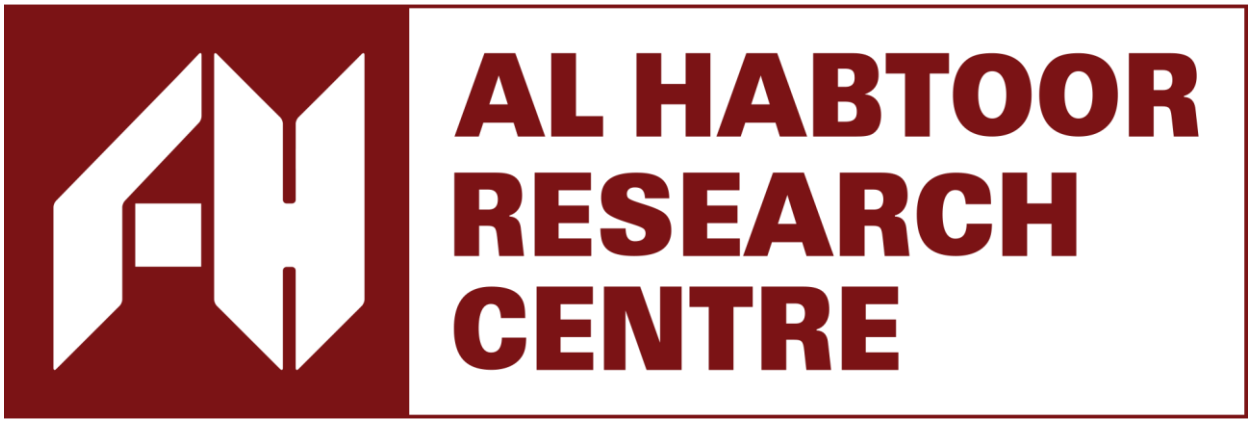
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What Choices Remain as Tehran Enters **“Water Bankruptcy”?**

Iran is facing an existential water crisis whose implications transcend conventional environmental or security challenges, threatening internal stability and potentially the state's continuity. The crisis reached its peak between 2024 and 2025, during which the country entered a multidimensional state of “water bankruptcy.” This condition is not merely the product of resource depletion; rather, it reflects decades of path-dependent decision-making, entrenched mismanagement, and a political-economic structure that has actively deepened the crisis. Its roots extend to the years preceding 1979, when the state prioritised large-scale, supply-driven engineering interventions. This trajectory accelerated only after 1979, driven by an urgent push for food self-sufficiency. The outcome has been an unchecked consumption model, and entrenched policy dynamics are now exceedingly difficult to reverse.

The peak of Iran’s water bankruptcy is now unfolding with particular severity in the capital, Tehran—a metropolis of tens of millions that may, by late 2025, face the imminent collapse of its central water-supply system. Such an outcome would amount, without hyperbole, to a humanitarian catastrophe. This dramatic escalation reflects the cumulative weight of decades of institutional failure and administratively deficient policies, shaped by a development paradigm driven more by political imperatives than by ecological or economic rationality.

This paradigm produced successive waves of ill-conceived dam construction and agricultural expansion that consumed the overwhelming majority of the country’s water resources, ultimately leading to severe groundwater depletion. The consequences of this material collapse extend far beyond the disruption of essential services: they now endanger the structural foundations of Iran’s “resistance economy” and the very architecture of its national food security. More critically, the desiccation of riverbeds has transformed these once-natural arteries into visible arenas of political mobilisation, triggering waves of social unrest that pose an unusually acute challenge to the legitimacy of the governing system.

First
The Roots of the Crisis

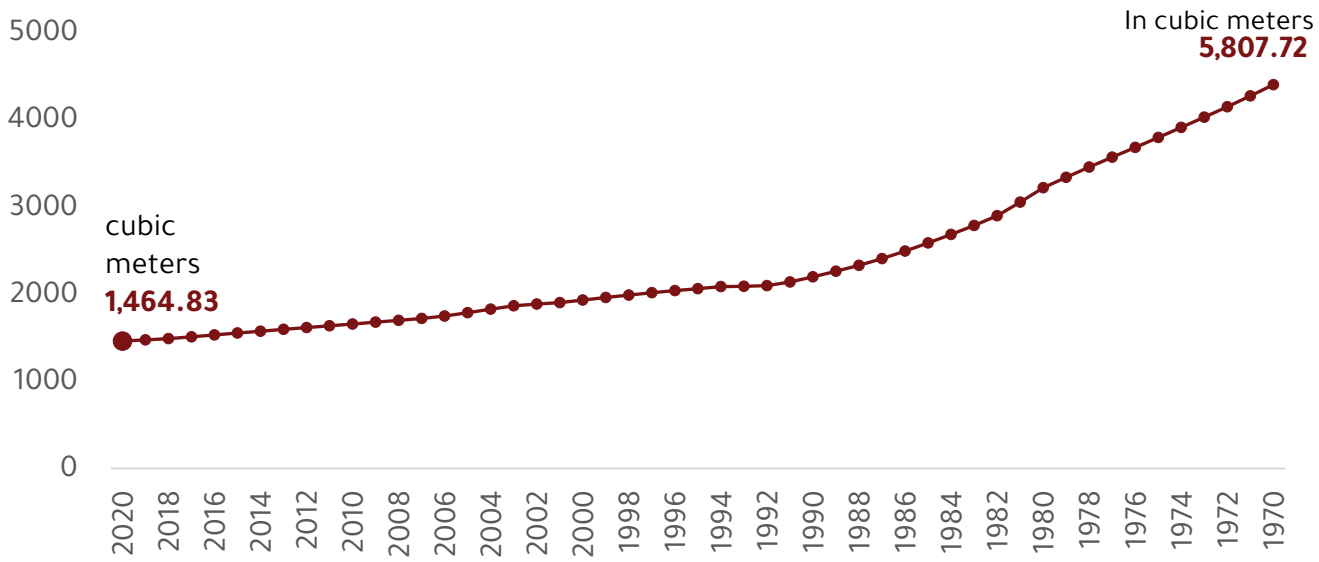
The current water crisis in Iran is the culmination of a long historical trajectory of systemic mismanagement that has driven severe resource depletion alongside steadily rising demand. The result is a structural crisis whose depth and implications far exceed the effects of climate variability or episodic drought. Iran's water sector is marked by a profound geographical imbalance: although the country receives an average annual rainfall of 376 millimetres, no more than 26% of its land area—concentrated largely in the northwest and along the Caspian coast—absorbs the majority of this precipitation.

By contrast, the central and eastern regions—where a substantial share of consumption is concentrated—receive scarce and irregular rainfall of roughly 200 millimetres per year. This deteriorating landscape is unfolding amid contradictory official narratives regarding its origins, oscillating between attributing the crisis to climate change and acknowledging it as the inevitable outcome of flawed planning. The 2024 United Nations World Water Development Report (UN WWDR) effectively settled this debate, identifying Iran as one of the states experiencing acute water stress and noting that its renewable surface and groundwater resources are now insufficient to meet the demands of a growing population and expanding agricultural and industrial sectors.

This hydrological imbalance is further compounded by escalating and unsustainable consumption pressures driven by steady population growth and ill-conceived development policies—notably the rapid expansion of hydroelectric dam construction to meet electricity demand and the intensification of the agricultural sector. International datasets reinforce this unsustainable trajectory, indicating that Iran consumes approximately 81% of its total renewable water resources, ranking it among the lowest on global water-sustainability indices.

This level of overextraction—particularly acute in the central and eastern basins relative to the north—has resulted in recurrent, and in many cases complete, water outages across major cities and provinces, including Tehran, Isfahan, Kerman, Shiraz, Khorasan, and Sistan and Baluchestan. These patterns underscore that the crisis is neither abstract nor temporary, but a tangible and deeply entrenched reality that has become increasingly difficult to reverse.

Renewable Freshwater Resources in Iran, 2021



Source: Food and Agriculture Organization of the United Nations - AQUASTAT

The critical thresholds now reached, threatening drinking-water supplies and agricultural security alike, are starkly reflected in the steep decline in per capita renewable water availability. According to data from the Food and Agriculture Organization of the United Nations (FAO) and the World Bank's AQUASTAT, this indicator fell from 5,808 cubic metres per person annually in 1961 to roughly 1,465 cubic metres by 2021.

Recent reports further underscore the gravity of the situation, noting that water reserves in 19 major dams have dropped below 20% of total storage capacity, with 16 entering the red zone, indicating storage levels of only 0–15%. This collapse in surface reserves is directly linked to the sharp decline in inflows, which, from the start of the water year to Aug. 2 2025, reached no more than 23.3 billion cubic metres, a contraction of 42% compared with the same period the previous year.

Second
The Contours of Water Bankruptcy

The strategic reservoir system supplying the capital is now confronting an unprecedented breakdown. By late 2025, the five principal dams on which Greater Tehran—home to more than 10 million people—depends had all reached critical operational thresholds. The Amir Kabir (Karaj) Dam, the primary source of drinking water for Tehran and Alborz, had fallen to just 8% of capacity, reflecting a catastrophic annual decline of 66%.

Conditions at the Lar Dam, which supplies eastern Tehran, were scarcely better, operating at only 7% of capacity after a year-on-year decline of 34%. Meanwhile, both the Latian and Mamloo dams were operating at critical levels, at 20% of capacity, each registering severe annual drops of up to 47%. Projections later indicated that the Mamloo Dam could cease operating entirely by September 2025. The crisis reached its apex when the director of the Tehran Province Water and Wastewater Company (TPWWC) issued a stark warning in November 2025, announcing that the Amir Kabir reservoir contained only two weeks of supply for the capital—effectively signalling the onset of a “Day Zero” scenario.

Status of Tehran's Main Reservoirs
(August–November 2025)

Reservoir Name	Full Capacity (million m^3)	Estimated Capacity (Aug–Nov 2025)	Annual Decline (%)	Importance / Notes
Amir Kabir (Karaj) Dam	205	approx. 8%–28%	58%–66%	Primary source of drinking water. / Warning: Water supply will only last for "**two weeks**", issued in November 2025.
Lar Dam	960	less than 5%–7%	28%–34%	Essential supplier for eastern and northern Tehran. / Extremely critical condition.
Latian Dam	95	approx. 17%–20%	45%–47%	Supplies water to eastern Tehran. / Extremely critical condition.
Mamloo Dam	250	approx. 20%	47%	Expected to go out of service by September 2025.
Taleqan Dam	420	approx. 50%–53%	32%	"Relatively better" status, yet still experiencing severe decline.

Source: Compiled by the researcher from multiple sources

The crisis in the capital offers a distilled representation of the environmental desiccation now extending across Iran. Lake Urmia, once the largest saline lake in the Middle East, stands as the starkest symbol of this collapse. Its water volume, recorded at 2 billion cubic metres in 2024, fell by 75% to just 0.5 billion cubic metres by August 2025. This continued decline is attributable not only to drought but also to systemic mismanagement within the basin, including the proliferation of more than 60,000 unlicensed groundwater wells. Similarly, the Zayandeh Rud in Isfahan, long regarded as a cultural and economic lifeline, has diminished into what is effectively a seasonally dry riverbed. Between 2021 and late 2025, it carried flowing water for only 176 days.

The collapse of surface-water reserves has, in turn, pushed Iran toward a destructive reliance on non-renewable groundwater, a condition widely characterised as "water bankruptcy." Scientific studies based on in-situ measurements and GRACE satellite observations indicate an average annual depletion of 29 centimetres in Iran's groundwater aquifers between 2002 and 2023.

This level of extraction has produced severe geophysical consequences, most notably land subsidence. It was this reality that led President Masoud Pezeshkian, in October 2025, to describe subsidence in parts of Tehran, reaching up to 30 centimetres per year, as a "catastrophe," acknowledging that "the water beneath our feet is running out." This convergence of failures, empty dams, exhausted aquifers, and vanishing lakes signals the collapse of the country's hydrological defences. What Iran now confronts is no longer a cyclical drought but a systemic tipping point: a form of civilisational drought in which the ecological foundations and infrastructural pillars of the state erode simultaneously.

Third
Iran's Water Collapse, Roots and Consequences

Multiple drivers lie behind the breakdown of Iran's water system, encompassing a series of factors that may be summarised as follows:

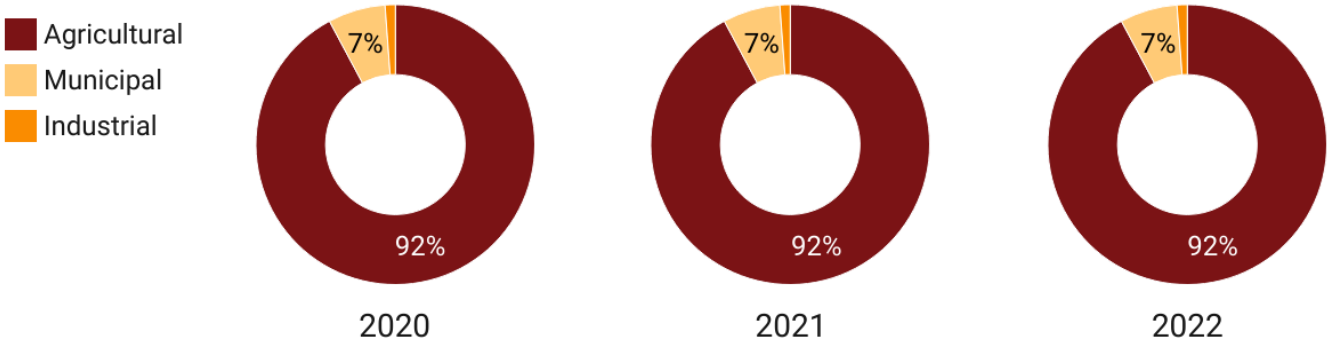
Manufacturing Collapse: Sixty Years of Hydrology-Hostile Development

The 2025 collapse was not inevitable; it was the cumulative outcome of six decades of state-building strategies that appeared coherent on the surface yet were fundamentally flawed at their core. The roots of the crisis lie in the period before 1979, particularly in the Pahlavi modernisation campaigns of the 1960s and 1970s.

Driven by the White Revolution and an accelerated industrialisation agenda, this era adopted a development model that largely disregarded hydrological limits. Water-intensive megaprojects were constructed in ecologically unsuitable environments, most notably the Mobarakeh Steel Company near Isfahan, established on desert terrain, setting a national precedent of elevating industrial ambition over hydrological reality. This period also marked a decisive technological and philosophical shift: the rapid abandonment of traditional, community-managed qanat systems, which had long supported sustainable water extraction, in favour of state-backed, energy-intensive deep wells. The result was the creation of a critical long-term dependency, one that would later crystallise into structural vulnerability.

Structure of Total Water Consumption by Sector

(percentage share)



Agricultural water is defined as the annual quantity of self-supplied water withdrawn for irrigation, livestock and aquaculture purposes.

Source: Food and Agriculture Organization of the United Nations (AQUASTAT)

Agricultural water use is defined as the annual volume of water self-withdrawn for irrigation, livestock, and aquaculture purposes.

The 1979 Islamic Revolution did not depart from the water-intensive development trajectory of the previous era; rather, it deepened it. The Pahlavi pursuit of modernisation was replaced by revolutionary imperatives centred on food self-sufficiency—a doctrine framed as strategic protection against Western sanctions and economic siege. This stance became the principal political justification for unsustainable water consumption, legitimising an agricultural sector that absorbed more than 92% of total national water resources while contributing only 7%–10% to GDP. This imbalance was further entrenched by extensive state subsidies for water and energy, creating structural incentives that obstructed any meaningful transition toward efficient irrigation technologies.

The Water Mafia

This historical trajectory has been further compounded by concealed domestic forces—a political economy marked by corruption and systemic administrative failure in which coherent resource management becomes virtually unattainable. Powerful quasi-governmental entities, most notably the Islamic Revolutionary Guard Corps (IRGC), have transformed water governance into a profit-generating enterprise. Khatam al-Anbiya, the IRGC's construction arm, together with its subsidiary Sepasad Engineering Co., which specialises in dam construction, has emerged as a central actor in what is widely described as the "water mafia." Analyses indicate that these entities inflate dam-construction costs and actively lobby for new projects, revealing a stark paradox: this pressure persists even though most existing dams operate far below their designed capacity.

This reality demonstrates that the underlying objective has not been water security but the procurement of lucrative construction contracts. The result is a distorted policy architecture in which visible action—such as building yet another dam—is rewarded politically and financially, while the real solutions —demand management, regulatory enforcement, and agricultural reform—are sidelined. In effect, the crisis becomes both self-sustaining and profitable for the most powerful actors within the system. Running parallel to this failure of central governance is a comparable collapse in local regulatory oversight. The state's fixation on large, supply-side megaprojects has created a governance vacuum around water extraction, enabling the proliferation of illegal groundwater wells, now estimated to exceed 300,000 nationwide.

For farmers facing bureaucratic corruption, arbitrary law enforcement, and a lack of viable alternatives, drilling an illegal well becomes the most rational, and often the only course of action. This reflects a near-total collapse of the state's regulatory authority and its broader legitimacy, resulting in a nationwide embodiment of the tragedy of the commons. This systemic deterioration is further aggravated by infrastructural decay, particularly during the 1979-1988 period, compounded by sanctions that have hindered technological advancement and delayed investment in critical water systems, leaving Iran with severe shortfalls in wastewater-treatment capacity. The country recycles only 15% of its wastewater, compared with approximately 90% in neighbouring states.

International Sanctions and the Obstruction of Technology Access

An additional external dimension further complicates the crisis: international sanctions intensify Iran's water predicament indirectly by restricting access to technology, financing, and expertise. Under the U.S. "maximum pressure" policy since 2018, layered onto earlier sanctions, foreign direct investment in Iran's infrastructure has largely evaporated. This has directly affected large-scale water projects, with plans to modernise irrigation networks or construct advanced desalination facilities delayed or cancelled altogether due to funding shortages or the withdrawal of foreign partners. Even when Tehran attempts to procure modern equipment, such as high-efficiency pumps, recycling systems, or remote-sensing technologies, it encounters export-control barriers linked to dual-use restrictions or corporate fears of secondary sanctions.

The brief period of sanctions relief following the 2015 nuclear agreement exposed the scale of Iran's unmet infrastructural needs. During that window, Tehran concluded agreements with European and Chinese companies for major water-treatment projects; yet most of these initiatives were frozen once U.S. sanctions were reimposed in 2018. Consequently, Iran's water sector remains far less developed than it might otherwise have been. This regression is most visible in two critical domains. First is wastewater recycling, a solution that could ease pressure on freshwater sources. Tehran, for instance, sought to attract USD 223 million in Chinese investment in 2015 to expand wastewater-treatment capacity, but progress has since remained sluggish. Second is desalination, an inherently costly approach for a state under sanctions.

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This dynamic generates what may be termed the **"sanctions paradox."** On one level, sanctions undeniably constrain the regime's ability to pursue technological solutions. On another, they offer the system an ideal political scapegoat, enabling officials to deflect responsibility for structural failures and cast the crisis as a form of "economic warfare." Yet governance, not sanctions, remains the decisive barrier. Given the entrenched dominance of the water mafia within the sector, the lifting of sanctions would not, in itself, produce meaningful solutions. Instead, it would likely create new revenue channels for the same unaccountable and corrupt actors, enabling them to finance further costly, ill-conceived megaprojects that would ultimately prove just as ineffective.

Managing the Narrative in the Face of Crisis

Unable to address the deep structural failures underlying the water collapse, the regime has turned to narrative-management strategies designed to deflect attention from its direct responsibility. This approach has taken its most striking form in the promotion of the "cloud-theft conspiracy." In 2018, Brigadier General Gholamreza Jalali, head of Iran's Civil Defence Organisation, publicly accused Israel of stealing Iran's clouds and snowfall, claiming it was ensuring that clouds entering Iranian airspace would not produce rain. The allegation, however, failed to gain public acceptance and instead exposed a serious rupture within the state apparatus. Ahad Vazifeh, the head of the Iran National Meteorology Organization (IRIMO), openly contradicted Jalali, stating unequivocally that "based on meteorological science, no country can steal clouds or snow." This public clash revealed a deep rift between the regime's ideological and security-oriented wing on the one hand, and its technocratic wing on the other.

Thus, the cloud-theft narrative is not simply a scientific claim; it is a politically purposeful instrument with clear multidimensional utility. **First,** it diverts accountability for catastrophic domestic failure toward an external adversary, redirecting public anger from Tehran to Tel Aviv. **Second,** it securitises the environmental sphere, recasting water-related protests as acts of sabotage or pro-Israeli agitation. **Third,** it reinforces the IRGC's institutional authority, for under this framing, only a security apparatus is capable of waging a "war above the clouds." This narrative, repeatedly revived in different forms, renders the crisis fundamentally unsolvable. If, as technocrats contend, the origins lie in failed domestic policy, then reform becomes the necessary path. But suppose the crisis is attributed to cloud theft. In that case, the prescribed response becomes ideological vigilance and expanded military expenditure, an outcome that ultimately bolsters those within the IRGC who already profit from ongoing mismanagement.

Protests against water scarcity in Iran

Fourth
Social and Political Implications

The consequences of this structural chain of causality now permeate Iran's social and political domains. Water scarcity has shifted from a purely environmental concern into a primary driver of internal unrest, a catalyst for social and economic disintegration, and a central axis within evolving geopolitical disputes. These implications can be assessed as follows:

The Thirst Uprising: The Unravelling of the Social Contract and the Securitisation of the Environment

This transformation is most clearly reflected in the irreversible erosion of the social contract between state and society, as the government's failure to supply water has turned desiccated riverbeds into focal points of political mobilisation. Water-related conflicts have intensified markedly, beginning with the drought cycles of 1999-2002 and culminating in the 2021 Uprising of the Thirsty in Khuzestan Province, a wave of unrest sparked by acute water shortages and public accusations of an "engineered drought" linked to dam construction and river diversion.

These disturbances are not isolated episodes but have become an entrenched feature of a drier and more volatile Iran. Farmers in Isfahan have repeatedly mobilised within the desiccated bed of the Zayandeh Rud, staging mass demonstrations in 2018, 2021, and again in March 2025. In response, the state has adopted a systematic securitisation of environmental discourse, with academics and journalists who contest official narratives increasingly subjected to harassment or detention.

These water-driven protests pose a uniquely dangerous challenge to the regime because, unlike the urban middle-class demonstrations demanding political freedoms, they mobilise the regime's traditional support base: poorer populations in rural areas and small towns. These are the very constituencies the 1979 Islamic Revolution claimed to represent. A revolt emerging from within these circles is therefore far more threatening than opposition-led uprisings. The worsening crisis has also encouraged Israel to seize the moment and promote regime change by presenting the prospect of water assistance as an incentive for political upheaval. In August 2025, Israeli Prime Minister Benjamin Netanyahu broadcast a message addressed to the Iranian people, offering a carefully crafted proposition: if Iranians "take to the streets and overthrow their government," Israel would send its top water experts and technologies to the country, including state-of-the-art desalination and recycling systems. This extraordinary campaign was explicitly designed to exploit the regime's acute vulnerability on the waterfront. Netanyahu emphasised that Israel had overcome its own water scarcity through innovation, implicitly suggesting that Iranians could do the same if they replaced their government.

Societal Fragmentation

The profound social and economic impact of the water crisis is reflected in a central paradox at the heart of the regime's policy framework: the national drive for food self-sufficiency has become the primary engine of "food insecurity." By allocating 92% of the country's available water to an agricultural sector marked by chronic inefficiency, the state has effectively undermined the very resource base upon which its food supply depends. Econometric studies confirm a direct, statistically significant negative relationship between water scarcity and agricultural output, and, by extension, the resilience of Iran's national food security system.

This agricultural collapse, in turn, fuels a wave of forced internal migration, accelerating population displacement from rural regions toward the cities. This dynamic creates a dangerous breakdown of the classic push–pull mechanism: as rural areas become uninhabitable (push), urban centres, foremost among them Tehran, already approaching a Day Zero scenario in its infrastructure, become equally incapable of absorbing displaced populations (pull). The regime thus finds itself trapped in a political and economic paradox of its own making. Preserving the country's remaining water resources would require a radical restructuring of the agricultural sector. Yet this sector employs 15% of the national labour force, meaning that any serious reform would push millions into unemployment, an outcome likely to spark widespread social unrest, which the regime fears more than the slow-moving ecological collapse itself. The result is a condition of political paralysis in which the government is compelled to permit the continued, large-scale waste of water because the alternative, meaningful reform, is viewed as posing a more immediate threat to regime stability than the long-term consequences of the crisis.

Fifth
Crisis Trajectories

Confronted with this existential water challenge, Iran now stands at a crossroads, facing a range of potential pathways through which the water crisis in Tehran may unfold over the coming years. These trajectories will be shaped by political choices, international developments, and, inevitably, climatic fluctuations. The possible scenarios can be summarised as follows:

Scenario One: Water Security in Exchange for Diplomatic Concessions

The severity of the crisis may ultimately compel Tehran to return to the negotiating table. Along this trajectory, the escalating water emergency becomes a primary driver of Iranian leaders' re-engagement with the international community, particularly on the nuclear file, to ease economic and technological constraints. Faced with the prospect that water scarcity could undermine internal stability, Tehran may conclude that prolonged isolation is untenable, prompting it to pursue sanctions relief as a pathway to securing the funding, equipment, and expertise required to address water shortages.

There is historical precedent for this logic. When the Joint Comprehensive Plan of Action (JCPOA) was implemented in 2015, many in Iran hoped that released assets and renewed foreign investment would support the development of critical infrastructure and help mitigate the water crisis alongside broader economic challenges. Indeed, Iranian negotiators have long viewed sanctions relief as essential to resolving environmental pressures. However, in the post-2018 era of “maximum pressure,” the Iranian economy, and therefore its capacity to invest in water projects, has faced severe constraints.

If drought conditions persist or intensify, the regime may ultimately judge that its survival outweighs ideological rigidity, leading it to show flexibility in negotiations over its nuclear programme or regional policies in exchange for sanctions easing. Such relief could open the door to projects Iran urgently needs but cannot currently finance or technically implement under sanctions, including large-scale desalination facilities, advanced wastewater-recycling systems, and modern irrigation reforms. Moreover, renewed diplomacy could expand cooperation with U.N. agencies and international water-management institutions, such as securing support from the World Bank or the FAO for water-conservation initiatives.

The other side of this trajectory is that Iran's adversaries may also become more willing to strike a deal, recognising the humanitarian dimension of Iran's water predicament. By 2024, several analysts warned that Iran's water bankruptcy had become so severe that it risked destabilising the country and potentially influencing its nuclear calculations. A state struggling to supply its population with basic necessities becomes a far less predictable geopolitical actor. Accordingly, a shared, albeit implicit, interest may emerge in preventing a total collapse.

In practical terms, this scenario could lead to the revival of the nuclear agreement or the emergence of a similar framework in which Iran agrees to curb certain contentious activities in exchange for renewed access to foreign capital and technology. Such support could then be channelled toward long-term water solutions. This pathway would not, on its own, resolve Iran's water crisis, which stems as much from domestic governance failures as from resource scarcity. Still, it would remove some of the major constraints currently obstructing progress.

The central assumption here is that Iran's leadership prioritises easing public discontent and recognises the linkage between environmental security and regime security. Should large-scale protests erupt or Tehran's water supply approach near-zero levels, the shock could trigger precisely such a recalibration. In essence, Iran may choose to offer political concessions abroad to secure the means to safeguard its water security at home.

Scenario Two: Re-Engineering Survival in the Face of Crisis

In this scenario, Iran undertakes stringent domestic measures to adapt to water scarcity and re-engineer its settlement and supply systems as a national priority, without necessarily altering its external posture. Recognising that current consumption patterns and population distribution are unsustainable, the government would embark on major interventions such as relocating portions of the population away from severely water-stressed regions, or even moving the capital itself, alongside massive expansions in desalination and water-transfer megaprojects.

Hints of such strategies have already appeared. In late 2025, officials in Tehran proposed halting all new construction projects in the capital for two years, an effort to curb the city's growth and reduce water demand. Should conditions deteriorate further, more drastic measures, including encouraging or potentially mandating outward migration from Tehran, could gain traction. The Greater Tehran region, home to roughly 13–14 million people, depends on a small number of mountain reservoirs and rapidly diminishing groundwater reserves.

If these sources continue to decline, one solution would be to supply the city from elsewhere; the other would be to reduce its population. Policies may emerge that incentivise relocation to relatively water-rich northern regions, such as the Caspian coast, or to the west. The government has previously contemplated moving the capital for other reasons, including seismic risk and congestion in Tehran, but water scarcity may ultimately force the issue. Beyond the capital, parts of provinces such as Sistan and Baluchestan or South Khorasan may become uninhabitable for large populations if well systems and qanat networks fail.

Thus, internal migration could accelerate, not as chaotic displacement, but as a government-supported process. At the same time, technological solutions would be pursued with urgency. Iran has already begun constructing an ambitious network of desalination facilities and long-distance pipeline systems along the shores of the Persian Gulf and the Gulf of Oman. One flagship initiative involves transporting desalinated seawater from the Gulf of Oman through pipelines stretching hundreds of kilometres inland to the arid central plateau to supply cities and industries in Kerman and Yazd, and potentially Isfahan as well.

Through this trajectory, Iran would intensify its commitment to such projects: constructing large-scale desalination plants, likely with Chinese or Russian financing if Western sanctions persist, and developing extensive pipeline networks to deliver water to major urban and industrial centres. Desalination capacity in coastal cities such as Bandar Abbas and Chabahar would also be expanded, enabling more river water to be redirected toward agriculture elsewhere in the country. Alongside desalination, measures for water reuse and conservation would be scaled up. For example, additional wastewater-treatment facilities could be built to ensure that treated effluent is used for agriculture or green spaces rather than precious freshwater supplies. Tehran already plans to significantly increase wastewater recycling over the next decade, aiming to add 150 million cubic metres per year of reclaimed water for reuse.

The government may also implement changes to agricultural practices, for example, reducing the acreage of rice fields in arid provinces, promoting greenhouse cultivation using drip irrigation systems, and similar measures. Water subsidies could be reduced to curb waste.

Scenario Three: Regional Manoeuvring Through Water Diplomacy

Tehran looks beyond its borders to secure water supplies through regional agreements and imports, intensifying its diplomatic efforts to obtain water from neighbouring states or through international cooperation. This may take the form of water-import arrangements, negotiations for a larger share of transboundary rivers, or even the direct import of water via pipelines or tankers. A central focus in this regard is the dispute over the Helmand River with Afghanistan.

Iran may pursue high-level talks to secure adherence to the 1973 treaty and potentially invest in shared infrastructure that benefits both sides. For example, Iran could offer Afghanistan technical or financial assistance to improve upstream water-use efficiency, such as upgrading canals or irrigation systems in Helmand Province, in exchange for guaranteed downstream flows. Alternatively, innovative solutions could be explored, such as constructing a reservoir on the Iran–Afghanistan border to store seasonal flows for release during droughts. Yet such measures require the trust and stability that are currently absent.

Another bold proposal frequently raised is the construction of a pipeline from the Caspian Sea southward into central Iran, effectively importing water from Iran's wetter northern region or even from a neighbouring Caspian littoral state. Iran began building a Caspian-to-central pipeline a few years ago to supply Semnan Province, but the project was halted due to environmental concerns and cost constraints. Among the proposals under discussion is the prospect of agreements with water-rich neighbouring states; for example, Tajikistan, a country with abundant water resources, has offered to sell water to Iran.

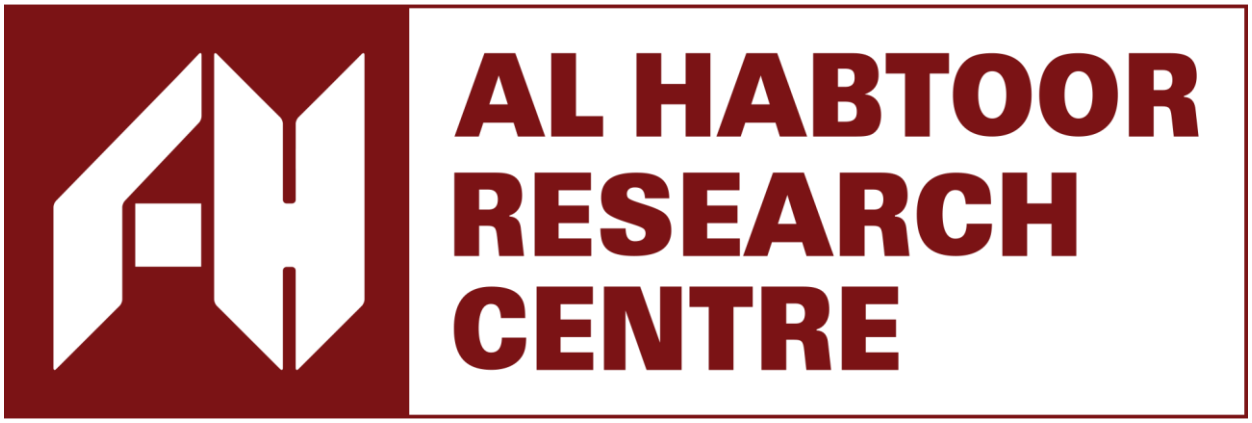
In conclusion, the water bankruptcy confronting Iran, exemplified by the imminent collapse of Tehran's reservoirs by the end of 2025, constitutes a crisis that far exceeds transient climatic drought. It is the inevitable and foreseeable outcome of sixty years of path-dependent policies and systemic mismanagement. The crisis is rooted in a historical development model that began with the Pahlavi Dynasty's "modernisation," which disregarded hydrological realities, and accelerated after the Revolution through the ideological imperative of self-sufficiency, which legitimised the unsustainable depletion of resources by an inefficient agricultural sector. This trajectory was reinforced by a domestic political economy that allowed influential networks, foremost the Revolutionary Guard, to transform water governance into a profit-making instrument through a dam-building mafia. This created an incentive structure that rewards ineffective megaprojects while penalising sustainable solutions such as demand management.

Confronted with this structural incapacity, the regime turned to the securitisation of environmental discourse, promoting cloud-theft narratives to deflect blame and suppressing the "thirst uprisings" that have begun to threaten its traditional social base and unravel the social contract. This desiccation is further compounded by international isolation: sanctions, while not the root cause, serve simultaneously as a technological barrier and a political pretext, while regional disputes, such as those over Helmand, turn water into an instrument of geopolitical conflict. Confronted with this reality, the Iranian state stands at a systemic tipping point: the status quo has become unsustainable, and the remaining options have narrowed into coercive trade-offs. These include diplomatic bargaining through political concessions in exchange for technology; re-engineering survival through population relocation; or outsourcing solutions via a risky form of regional water diplomacy. Accordingly, the coming years are expected to test not only Iran's ability to secure water but also the regime's capacity to withstand an environmental collapse that, at its core, undermines its legitimacy, a legitimacy historically anchored in promises of development.

References

1. Agencies. “Iran to Begin Restricting Water Use in Tehran as Drought Reaches Critical Levels.” The Times of Israel, November 8, 2025. https://www.timesofisrael.com/iran-to-begin-restricting-water-use-in-tehran-as-drought-reaches-critical-levels/.
2. Anonymous. “No Easy Solutions for Iran’s Water Shortages and Power Outages.” Stimson Center, March 26, 2025. Accessed November 12, 2025. https://www.stimson.org/2025/no-easy-solutions-for-irans-water-shortages-and-power-outages/.
3. Authentic World Updates. “Satellite images show that Iran’s water reservoirs in Tehran have lost more than 19.4 square kilometres of water since 2020. Landsat data (2020-2025) highlights the severe impact of Iran’s ongoing water shortage crisis.” X, November 8, 2025. Accessed November 8, 2025. https://x.com/authworldnews/status/1987147677553811822?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1987147677553811822%7Ctwgr%5Ed3edac1a47b6c55659ded14a4fb9a2256314a38b%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.timesofisrael.com%2Firan-to-begin-restricting-water-use-in-tehran-as-drought-reaches-critical-levels%2F.
4. Baloch, Shah Meer. “Iranians Asked to Limit Water Use as Temperatures Hit 50C and Reservoirs Are Depleted.” The Guardian, July 22, 2025. https://www.theguardian.com/world/2025/jul/22/iran-limit-water-temperature-50c-and-reservoirs-depleted-extreme-heat-drought.
5. Climate-Diplomacy. “Water Stress and Political Tensions in Iran.” Accessed November 10, 2025. https://climate-diplomacy.org/case-studies/water-stress-and-political-tensions-iran.
6. Everett, Mariamne. “Drinking Water in Tehran Could Run Dry in Two Weeks, Iranian Official Says.” Al Jazeera, November 2, 2025. https://www.aljazeera.com/news/2025/11/2/drinking-water-in-tehran-could-run-dry-in-two-weeks-iranian-official-says
7. Fanack Water Editorial Team. “Iran’s Water Crisis: Overuse, Mismanagement, and the Human Factor - Fanack Water.” Fanack Water, October 27, 2025. Accessed November 8, 2025. https://water.fanack.com/iran-water-crisis/.
8. Fanack Water. “Iran Water Report,” June 20, 2025. Accessed November 9, 2025. https://water.fanack.com/iran/.
9. Fanack Water. “Water Challenges in Iran - Fanack Water,” August 9, 2021. Accessed November 12, 2025. https://water.fanack.com/iran/water-challenges-in-iran/.
10. Farahzad, Fardad. “Tehran Reservoirs Hit Historic Lows, Satellite Images Show.” Iran International, July 24, 2025. https://www.iranintl.com/en/202507242043.
11. Garshasbi, Mehdi. “Illegal Wells Are a Blight on Wetlands.” Tehran Times, February 1, 2023. https://www.tehrantimes.com/news/481527/Illegal-wells-are-a-blight-on-wetlands.

12. GFZ. “Iran’s Groundwater Crisis and Subsidence Come to a Head,” May 11, 2024. Accessed November 10, 2025. https://www.gfz.de/en/press/news/details/grundwasserkrise-und-bodenabsenkung-in-iran-spitzt-sich-zu.
13. Iran International. “Netanyahu Urges Iranians to ‘Take Risks for Freedom,’ Hints at More War,” August 12, 2025. https://www.iranintl.com/en/202508125488.
14. Israel Prime Minister's Office. “A Message from Prime Minister Netanyahu to the People of Iran,” August 12, 2025. Accessed November 10, 2025. https://www.gov.il/en/pages/spoke-message120825.
15. Mahoozi, Sanam, and Erika Solomon. “As Aquifers Dry up, Tehran Rations Water and Calls for Rain Prayers.” The New York Times, November 9, 2025. https://www.nytimes.com/2025/11/09/world/middleeast/iran-water-rationing-drought.html#:~:text=rationing%2Ddrought.html-,As%20Aquifers%20Dry%20Up%2C%20Tehran%20Rations%20Water%20and%20Calls%20for,promoted%20cloud%2Dtheft%20conspiracy%20theories.
16. Mahoozi, Sanam. “Drought, Sandstorms and Evacuations: How Iran’s Climate Crisis Gets Ignored.” The Conversation, October 16, 2025. https://doi.org/10.64628/ab.xtqm9tcyp.
17. NDTV. “Iran Accuses Israel of Stealing Its Clouds, Snow, ‘Manipulating Weather,’” July 2, 2018. https://www.ndtv.com/world-news/not-possible-says-irans-meterological-department-on-general-alleging-cloud-theft-1876783.
18. Reuters. “Iranian President Says Country Is on Brink of Dire Water Crisis.” Reuters, July 31, 2025. https://www.reuters.com/sustainability/boards-policy-regulation/iranian-president-says-country-is-brink-dire-water-crisis-2025-07-31/
19. Reuters. “Thousands rally in central Iran to protest water shortages.” Reuters, November 20, 2021. https://www.reuters.com/markets/commodities/thousands-rally-central-iran-protest-water-shortages-2021-11-19/#:~:text=DUBAI%2C%20Nov%2019%20(Reuters),in%20the%20drought%2Dstricken%20region.
20. The Times of Israel. “Iranian General Blames Water Woes on Israeli ‘Cloud Theft,’” July 2, 2018. https://www.timesofisrael.com/iranian-general-blames-water-woes-on-israeli-cloud-theft/.
21. Vatanka, Alex. “Iran’s Biggest Problem Is Water.” Foreign Policy, May 24, 2021. https://foreignpolicy.com/2021/05/24/irans-biggest-problem-is-water/.
22. Wintour, Patrick. “Iran Must Move Its Capital from Tehran, Says President as Water Crisis Worsens.” The Guardian, October 2, 2025. https://www.theguardian.com/world/2025/oct/02/iran-must-move-its-capital-from-tehran-says-president-as-water-crisis-worsens.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