

# “Water Diplomacy” It is Not Enough to Fix Iran-Iraq’s Water Dispute



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## **“Water Diplomacy” It is Not Enough to Fix Iran-Iraq’s Water Dispute**



**Iran could be drawn into a major water dispute with Iraq. Water scarcity has triggered significant socio-political and security problems in Iran. Iraq blames Iran for changing the course of rivers that flow into the Tigris and Euphrates, as well as building dams in contravention to international law. Iran thinks the problem can be fixed through proactive “water diplomacy” with Iraq but admits that such a policy is lacking.**

The relationship between Iran and Iraq has hit a hard rock given the water crisis between the two. Iran itself is experiencing a major water crisis that surfaced in 2011. The crisis could lead to a major water shortage in the country by 2036. Iran has turned a blind eye to the problem, looking for lucrative quick fixes such as hefty dam’s and water transfer projects. Despite the socio-economic consequences

of such large-scale projects, Iran's parliament has repeatedly failed to thwart water transfer and dam construction plans for the next five years.<sup>1</sup>

Iran's water policies have worsened the problems along its Western borders with Iraq. Some two-thirds of Iran's total 10.2 billion cubic meters of water exiting the country goes to Iraq.<sup>2</sup> Experts predict that Iran's Western provinces will lose their water reserves at some point, because of rapid flows into Iraq. This means that Iran's government will have to aggressively develop water policies that permit it to fully use the country's existing water resources. This year alone, Iran will construct 13 new dams. In the last three decades, it has built more than 600 dams. It has developed other large-scale water transfer projects which have deprived the Western provinces that border Iraq of much needed water and instead transported it to the Central and Eastern provinces in Iran.<sup>3</sup>

Each year influential members of Iran's parliament try to win support to transfer water to their own electoral districts. Meanwhile, a steady decline in water resources in the West of the country has threatened to kill tourism in the provinces of Chahar Mahal Bakhtiari, Kurdistan and Eastern Azerbaijan. These are places that have the lowest annual water reserves in the country.<sup>4</sup> The other Western provinces of Kermanshah, Hamadan and Khuzestan have already depleted their water reserves. This has placed the Western provinces of Iran in more critical water shortage conditions than the rest of the country.<sup>5</sup> In fact, in many remote urban areas in the West of Iran, there has been a gradual shift from surface to ground water supplies for drinking purposes. Without an operative national waste management system, there is more polluted water in the remote areas, though less so in major urban areas where water quality standards are higher.<sup>6</sup>

To make matters worse, Iran's government has turned to extracting water from the once mighty Karoun river which flows from the mountains of Zagros to Khuzestan. Since the Safavid period in the 16<sup>th</sup> century, water from the Karoun river has supplied Esfahan with water

for Zayandeh Rud, another major river flowing through Iran's central valley. Water in Zayandeh Rud has in turn been transferred to Yazd on Iran's Eastern border. In more recent years, this policy of diverting water flows, has stirred riots in Khuzestan, as 45 percent of Karoun's water has been diverted to other regional water mega projects in Iran. Iranian politicians including the former late President Ali Akbar Hashemi Rafsanjani and the current President Hassan Rouhani have backed plans to transfer Karoun's water to Eastern provincial towns like Rafsanjan and Kerman, in part because their birthplaces are in the East of the country.<sup>7</sup>

Politicians divert water to their districts for agricultural projects. Agriculture accounts for 10.1 percent of overall economic production and contributes approximately 20 percent to employment.<sup>8</sup> Also, large amounts of water, around 93 percent of the country's renewable water resources, goes towards irrigated agricultural projects. The water transfers have led to problems in Khuzestan, as farmers there are unwilling to accept limits on growing rice that is a water intensive crop and results in water salinization. As more water is transferred from both Karoun and Zayandeh Rud to the Eastern provinces, farmers in Iran's central valley are increasingly antagonistic to farmers in neighboring Khuzestan, a problem that has further exacerbated existing water tensions along Iran's borders with Iraq.<sup>9</sup>

Despite these challenges, Behrooz Moradi, a member of Iran's National Company for Expansion of Water and Power Resources claims that there is no comprehensive water management plan in Iran.<sup>10</sup> AbdolHamid Khadri, a member of Iran's parliament, warns that Iran could see the eruption of wars because of water scarcity and face near collapse as a result. The worst hit areas are the Southern villages and towns bordering Iraq, including Bushehr, Dashestan, Abadan, and Minou Island. Reza Ardakanian, Iran's Minister of Energy says that rainfall is a third lower than its average levels this year in these areas, and temperatures have increased by almost 2 degrees centigrade. This threatens these areas with severe drought.<sup>11</sup>

There is no clear solution on how to manage Iran's water crisis along the borders with Iraq. If the problem is not fixed, it could potentially turn into a major security threat for Iran. Rather than face the problem, Iran generally prefers to deal with water disputes with Iraq as an internal rather than a regional issue. In fact, there is no major or comprehensive agreement between Iran and Iraq on the management of their shared rivers.

Iran's National Committee for Sustainable Development, a body that aims to advance the UN 2030 goals for development, holds state managers responsible for decisions about water distribution policies, internally and externally. Iran's Fifth National Development Plan (2010-2015) makes it imperative to prevent the flow of water across Iran to its neighboring countries and instructs that water should be re-diverted into Iran. Surface border waters are managed directly through joint agreements with neighboring states, often allowing a 50-50 share for using such waters.<sup>12</sup>

International law largely shapes Iran's rights and obligations on the use of border waters, but it remains largely vague. International law on such issues is largely a result of an agreement. Often, Iran ignores pertinent international norms that apply to states in managing shared waters. This makes it hard for itself to design policies to maximize the use of border waters. The issue is critical because Iran suffers from chronic water shortages, and border waters could be a good resource for the country. More importantly, because of a lack of applicable laws, Iran underuses the potential of its vast border waters. Some 22 percent of Iran's water resources run along 1918 km of its borders, through 26 small and large rivers.<sup>13</sup> Though Iran works with Afghanistan to build water agreements over Helmand, it lacks multilateral diplomacy to address similar issues with Iraq.<sup>14</sup>

The first recorded treaty that involved the Shatt-al-Arab, a disputed waterway between Iran and Iraq, was *The Peace Treaty of 1639* between the Safavid and Ottoman Empires. The treaty lacked

detail, in large part it was consistent with tribal loyalties, and led to the outbreak of wars between the two sides. A second treaty emerged, known as *The Second Erzerum Treaty of 1847*. It left the issue of territorial responsibility for the Eastern bank of Shatt-al-Arab unresolved. *The Constantinople Protocol of 1913* resulted in a commission to mark the border but this ended with the outbreak of WWI.

It was in the aftermath of WWI, and the delineation of borders between Iran and Iraq, that the Shatt-al-Arab water dispute arose as an inter-state issue. This resulted in a treaty between the two countries in 1937.<sup>15</sup> A new commission arose to determine the water borders, but little progress was made. In the 1950s, the Arab Cold War and several military coups in Iraq delayed further progress on the issue. Finally, in March 1975, and in part because of Saudi Arabia's mediation efforts, Iran and Iraq signed *The Algiers Agreement* to establish the waterway's border along the *thalweg* line (mid-river). Iraq later abrogated the treaty and invaded Iran in 1980, demanding full access to the width of the river to ensure exports without Iranian intervention.

Since the collapse of the Islamic State (ISIS) in Iraq last year, Iran has been keenly aware of the need to exert better control over its border waters in the event of future instability in Iraq. The ISIS takeover of the Mosul Dam in August 2014 and other water infrastructure in Fallujah and Baqubah showed how vulnerable the region's water resources were. Terrorism destroyed much of Iraq's water installations in Baghdad, Salah Al Deen, Nineveh, Al Anbar, Diyala and Kirkuk. Other sectarian and tribal battles over water in Iraq further threatened to diminish the downstream flow of water into Iran. Iran remained concerned that Turkey's actions to cut the flow of water to both Iran and Iraq could also exacerbate existing tensions. Turkey maintains that the rivers Euphrates and Tigris are enough to provide Iraq with its water needs. The Euphrates river streams run

about 1,000 km in Iraq, while the Tigris river runs for nearly 1,300 km along Iraq's borders, accounting for over 90 percent of the country's ground water. Iranian water experts claim that Iraq has no major share of the Euphrates, although it wants access to 43 percent of its river flow, and it will see a 20-30 percent decline in water flow from these two rivers in the next 30 to 40 years because of dam construction projects in Turkey.<sup>16</sup>

On February 27, 2018, Major General Yahya Rahim Safavi, a senior military advisor to the Supreme Leader Ali Khamenei, warned that water scarcity could lead to regional tensions with Iran's neighboring countries including Iraq. He cautioned Iran's government to recognize that the presence of foreign troops in Iraq, alluding to US forces, may complicate Iran's ability to manage water tensions with Iraq.<sup>17</sup> Since then, Iraqi authorities reportedly informed BBC Farsi that Iran has blocked water flow to Iraq from 42 rivers.<sup>18</sup>

Tehran views water scarcity along its borders with Iraq strictly as a national security issue and wants ownership of river flows into Iraq. But restricting water flows into Iraq is not an easy task. Water transfer from one water source to another is highly costly. The Alwand river, on Iran's Western border is sourced inside Iran but then crosses into Iraq river, Iran has done almost little to re-divert the river back into the country in part because of the high costs involved.<sup>19</sup> Plans to transfer water from the Western provinces to other parts of the country have only increased water problems and shortages in regions where Iran shares rivers with Iraq.<sup>20</sup>

Water intensive production patterns in Iran and Iraq have done little to help the two resolve their differences. Both are contributing to declining water quality and quantity along their borders because of outdated agricultural practices. In 2011, Iraq tried to prevent the flow of polluted waters, heavy with salt and chemicals, from Iran. These waters have dried up marshes in both Iran and Iraq. In Basra, Iraq's main marshland, considered the largest in Asia and named by UNESCO as a national heritage, could face complete destruction.<sup>21</sup>

Dam construction in Iran is worsening water shortages in Iraq. Only 3 of 45 major tributaries once shared by Iran and Iraq have escaped dam construction or other means of water diversion or blocks. Iran's Daryan Dam, to be completed later this year, will cut water flow from the Sirwan river—a key tributary for the Tigris—by up to 60 percent. This is a serious problem for Iraq, given that 30 percent of Tigris's annual water flow originates in Iran through the Sirwan and Arvant rivers. A 47 km tunnel next to the dam will divert the river's course entirely back into Iran. In total, Iran has constructed some 14 projects on all the tributaries of the Sirwan river inside its borders.<sup>22</sup>

Iran directs waste salt into dam residues. It has promised to direct the salty water into Gulf waters instead. Water from the Gulf has seeped into Karoun's declining water reserves. In addition to the salt discharge from the dams, a dispute between Tehran and Baghdad lingers over the Karun and Karkha rivers, both of which have been diverted into Iran, depriving Basra of fresh water.<sup>23</sup>

Iran has dried up the shared Little Zab river along the borders with Iraq's Kurdistan region. A new dam on the Little Zab in Sardasht resulted in a shortage of drinking and agricultural water in Qaladze, a city of about 140,000 inhabitants located North of Sulaymaniyah in Iraq.<sup>24</sup> The primary source of water in the Kurdistan Region is from five main rivers that provide 75 percent of water for household and commercial use, as well as for agriculture. Two of these, the Sirwan and the Little Zab, flow into the region from Iran.<sup>25</sup>

Tehran has constructed on the tributaries that feed the Dukan Dam in Northern Iraq. It is feared that these actions and other water projects on the shared rivers with Iraq may deny the latter its historic claim to downstream waters from the Tigris and the Euphrates.<sup>26</sup> But Iran insists that it does not wish to treat Iraq poorly over water issues. It also faults the drying up of the Hawaizah Marsh in 2003 on Iraq's water diversion plans from the Shia-dominated regions of the South during Saddam Hussein's reign.<sup>27</sup>

Iraqi officials say Iran is not obeying international rules or water



sharing agreements. Baghdad has sought to negotiate with Iran, and says the talks aim to find common solutions. But the Iranian consulate in Sulaymaniyah claims no binding agreement is in place, except for the use of seven existing cross-border rivers of which Sirwan and Little Zab are not among them. Iran also insists that Iraq has ignored its request since 2017 to develop a commission for signing a contract on how to use the Sirwan and Little Zab rivers, but Iraqi officials view the gesture as an ad hoc diplomatic move rather than a sincere move to help Iraq with its water crisis.<sup>28</sup> Iran could see water as a weapon to control Iraqi factions and political groups, according to the Iraqis. Its hold over the Little Zab, according to observers, may have been triggered by the Kurdish leader Masoud Barzani's decision to seek autonomy for the Kurdish region, a move if successful could have led to unrest in Iran's own Kurdish region. Furthermore, the Shia regions of Iraq including the city of Najaf need water from the Kurdish region to assign to growing rice. Previous budget disputes with Iraq's central government led the Kurdistan Regional Government to close off dams and irrigation canals to deprive water to downstream Shia-led districts.<sup>29</sup> Iraqis also believe that Iran's decision to cut the flow of water and electricity was done to manipulate Iraq's May parliamentary elections, and to guarantee that a pro-Iranian candidate assumes power as the next prime minister of Iraq.<sup>30</sup>

Nearly two decades ago, the people of Abadan situated on Iran's Western borders protested water transfers to the central valley, which turned into a major security issue as fights erupted between residents and farmers from the two areas and led to a crackdown of protests. The government had to put its foot down explaining that it alone, and not the local communities, could decide how to manage water issues.<sup>31</sup> According to article 44 of Iran's constitution, dams and water pipeline projects are considered public property. Article 45 of the constitution makes all water available for public consumption. The article further

allows the state, to use water as deemed necessary to advance its interests. The inherent contradiction of the article is that while it gives the people of Iran the right to use the country's water resources, it is the state that sets and controls water policies. As a result, when Tehran decides to export water to neighboring countries, or to reallocate water resources internally, often it clashes with the water demands of the local population. Other legal codes attempt to address the water problem. Article 18 of Iran's constitution and articles 18, 19 and 149 of the civil code do not recognize private ownership of water resources, but insist on the just distribution of water, and the state is designated as the ultimate arbiter of how water resources are divided across the country and across borders. Furthermore, the government says that water resources in one province do not belong to the inhabitants although they are given priority in the distribution of provincial water resources.<sup>32</sup>

The issue of water distribution re-surfaced under reformist President Mohammad Khatami. On December 13, 2003, a member of Khatami's cabinet Habibollah Bitarof reportedly signed an agreement with his Kuwaiti counterpart, Sheikh Ahmed al Jaber al-Salah, to export drinking water to Kuwait. Bitarof explained that for the next 30 years Iran would transfer 300-320 million cubic meters annually of surplus drinking water to Kuwait. He called it a turning point for bilateral relations between the two countries. It was expected the project would allow Iran to also wield political influence over Kuwait. The pipe used for this purpose was planned to be 500 km long of which 150 km would run under Gulf waters. The budget for the project was estimated at \$2 billion.<sup>33</sup>

Many experts warned against the project, adding it would result in a shortage and drought inside Iran. Such warnings fell on deaf ears. Though the government claimed that the project never quite picked up, it did not work transparently as it did not inform residents of ongoing water projects with Iraq and Kuwait. Iran's government insisted that not a drop of water had gone to those countries.<sup>34</sup>

In 2007, Foreign Minister Manouchehr Mottaki reportedly reiterated Iran's commitment to the transfer of water to Kuwait. Later, Foreign Minister Mohammad Javad Zarif reportedly signed documents regarding Karoun river water transfer for drinking, agriculture and other purposes to Iraq's Basra province. It was later revealed that since 2009 the Iranian government had probably been sending drinking water to Iraq. The commitment was set at 120,000 cubic meters of water to Basra annually. This amount was to be shipped by cargo ships, trucks and underground pipes with hardly any oversight or even approval. In Iran, many would later argue that the quantity of water sent to Iraq was minimal, and hardly a solution to fix Basra's water problems, as its population is 2.5 million. The annual water consumption in Khuzestan is 3.5 times higher than international standards as the area has high temperatures and poor agricultural conditions. This meant the water Iran gave Basra was insignificant.<sup>35</sup>

The veracity of these reports could not be independently verified. But other politicians have defended the decision to pump water to Iraq. In 2013, senior Iranian diplomat Abbas Araghchi defended the idea of "virtual water trade" and insisted that water should flow to Iraq where agricultural crops are less water intensive, and allow Iran to allocate its water for industrial growth, and domestic consumption. He argued that terrorist groups like ISIS would have more fertile ground for growth in a dry and arid Iraq where farmers lacked water resources to make a living.<sup>36</sup>

Iranian officials like Araghchi have acknowledged that Iran's outdated agricultural and irrigation systems, as well as poor water management policies in the past three decades have contributed to its nationwide water shortage. For example, wheat is heavily subsidized and there are no incentives for farmers to export the wheat produced in the South. Araghchi says Iran must not insist on agricultural self-sufficiency because it will run the country out of its water resources and result in security challenges.<sup>37</sup>

Water experts in Iran further criticize those who question why Iran

should allow water to flow into the Shatt al-Arab in Iraq, a waterway resulting from the joining of Tigris and Euphrates rivers, and fed by tributaries like the Karkeh and Karun rivers. They argue that if desertification expands in Iraq due to water shortages, it is Iran that will suffer the resulting sandstorms due to dried up swamps in Iraq and because of Turkey's dam project Guneydogu Anadolu Projesi in South Anatolia.<sup>38</sup> The project has reportedly nearly killed tourism in Iran's once fertile region of Chahar Mahal and Bakhtiari.<sup>39</sup>

One third of Iran's rural population has already abandoned villages because of drought and sandstorms. In Khuzestan, some residents must travel for miles to gather pumped water in large containers. Drought worsens the water unrest. The Iran Meteorological Organization estimates that 97 percent of the country faces some degree of drought. Analysts blame government mismanagement for diverting water away from some farmers in favor of others.<sup>40</sup> Another problem is chemical liquids from the nearby Abadan refinery that is dumped into the water bordering Basra and Khorramshahr, and the flowing of heavy agricultural fertilizers.<sup>41</sup> In addition, Iran must deal with Turkey's Ilisu Dam on the Tigris River, which will cut the flow of water to Iraq and to Khuzestan's Kharkeh River that feeds the al-Azim marsh. Iranian officials, including President Rouhani, have been quick to condemn Ankara's construction citing the environmental degradation that will result.<sup>42</sup>

In July, simultaneous protests erupted in Iran and Iraq over water issues. Iraqis in the Southern parts of the country blamed economic stagnation in the region because of Iran frequently cutting off water and electricity supplies. Iraqis in the Southeastern city of Basra meanwhile lined up to receive what reports said was fresh water supplied from nearby Iran. Tehran insisted that it had not signed an agreement to give Iraq water.<sup>43</sup>

In Abadan and Khorramshahr, protesters tried to halt rumored plans to transfer water from their regions to Southern Iraq. The authorities

rejected sending water to Kuwait but remained largely silent about rumored water transfers to Basra.<sup>44</sup> Foreign sources reported that protestors broke pipes carrying water, but officials insisted that salty waters in Arvand Rud had damaged the pipes, and they encouraged protests only in designated locations to prevent the destruction of water installations. The protests came in the wake of anger at Tehran for waging political and ideological battles in places like Iraq, Syria and Yemen while neglecting the interior and its needs.<sup>45</sup>

Iranian officials dismissed the protests as a mishap, claiming that Karoun's diminishing fresh water flows were because of drought and lower upstream flows as salty Gulf seawater had seeped into the river and rendered it unusable. Abdullah Sameri, a member of parliament, said the Ghadir pipe from Hawiazah to Khorramshahr and Abadan took just four days to repair. Salty water damaged pipes and left heavy residues in water reserves. Deputy Interior Minister Hossein Zolfaghari said that two-dozen tankers containing water were sent to the region, and the issue, which resulted in the pipes being damaged, would be resolved within days.<sup>46</sup>

As the government began building a sand dam to stop Gulf water flow and distributed bottled water to ease tensions, residents of Abadan and Khorramshahr complained of salty, muddy water that was hard to drink or use for washing purposes. Only a few could afford home purifying devices, and unlike its neighbors, Iran does not have major desalination stations around the Gulf. Besides, heavy pollution in the city's running water makes it impossible to purify the water especially in areas like Minoudasht in Abadan County. Ali Sari, a member of Khuzestan's provincial council said Iran's neighboring countries already use purifying equipment to meet water needs. This is not the case in Iran where no such work is done, he said. Instead the focus is on water transfer projects, all the while ignoring that where water in Karoun can be transferred is only 20 km away from waste sites. With no proper waste management system in place, such transfers are polluted and unhealthy.<sup>47</sup>

Tehran says it is completing the construction of 33 new water and sewage projects in Khuzestan, with pipeline water to reach Abadan, Khorramshahr, Susangherd, Dasht Azadeghan, and Shadeghan.<sup>48</sup> This will be Iran's biggest water project this year, to be completed by Khatam al-Anbiya, a construction company controlled by the Islamic Revolutionary Guard Corps (IRGC), although officials insist that the body did not even receive the full financial sum for the project but worked on it anyhow. This project includes 17 dams and a 150 km tunnel crossing the Iranian provinces of West Azerbaijan, Kurdistan, Kermanshah, Ilam, and Khuzestan. The project will move water from the West of Iran to the East and Center of the country. This means diverting the water flow at the Little Zab and Sirwan rivers.<sup>49</sup>

The plan to send drinking water to Khorramshahr has been a decades long project. Similar projects for a pipeline were conceived in the past 25 years, but it was the Rouhani government that fast tracked the implementation of Ghadir around three years ago. But parliamentary deputy GholamReza Sharafi says he warned the government over a year ago about the pending water crisis and protests in Khorramshahr, but no one heeded his warnings. The Iranian government still blames the slow progress of the project on the physical destruction and economic consequences of the Iran-Iraq war in the 1980s.

It appears Iran's government has ignored experts request for a more proactive "water diplomacy" to manage disputes with Iraq. According to a senior Rouhani aide, Hesamuddin Ashna, Iran shares waters with 15 neighbors in the region, and its disagreements with Iraq are the most serious. Water diplomacy, according to Araghchi, can prevent wars and encourage cooperation rather than conflict. Araghchi also proposes swapping water with Iraq in exchange for crops, a policy that will save Iran much of its water now wasted on outdated agricultural practices. It could also reduce internal conflicts over water in Iran. When Araghchi posted an instagram message expressing joy that water was flowing again in Zayandeh Rud, he received angry messages from Khuzestan where water is diverted to the central valley.<sup>50</sup>

An expert at the Office of Border Rivers at the Ministry of Energy, Jabbar Vatan Fada, says there are too many conflicting state institutions in Iran that compete for water resources and confuse the country's water policies along the borders.<sup>51</sup> Only strong diplomacy, which is currently lacking, can surpass these institutional challenges. He says the potential to improve the situation is high. Siravan, for example, is the largest river in the West in Iran's Kurdistan Province. It runs through Iran for some 300 km before it enters Iraq. But hardly 10 percent of the river's potential is used. Iran is simply trying to ensure that the water is used only internally, which leaves much to be desired for diplomacy to work.<sup>52</sup>

Iran's water foreign policy is clearly waning for now, and the country's "water mafia" is criticized for using this natural resource for political influence in Iraq and for profiting in lucrative transactions. Meanwhile, frequent sandstorms from Iraq keep polluting half of Iran. The Foreign Ministry, treats the sandstorms as a national crisis equal to the threat from terrorism. Many in Iran believe the Ministry has hardly done enough. The Organization for Environmental Protection has similarly done little and has largely operated as a sounding board for environmental grievances without offering any solutions. Also, other state institutions have been reluctant to accept accountability for Iran's water disputes with Iraq. Under Saddam Hussein, water was diverted from many parts of Southern Iraq and from the upstream areas of the Euphrates and Tigris, simply to satisfy the Iraqi dictator's thirst for prestige in his hometown regions of Iraq and to control the population in the South. As a result, he destroyed much of Iraq's natural habitat, and his country became a fertile ground for ISIS recruits' decades later. Experts say they fear Iran could face a similar problem as it has done nothing to stand up to Turkey, or to fix problems with Iraq, except for building dams and pocketing money from the construction.<sup>53</sup>

As Iran faces its lowest rainfall levels three years in a row, and a severe drought, its future is not promising. Some 338 out of 699 valleys in

Iran are in critical or banned areas for water consumption, and a total of 334 towns and cities are currently faced with a water crisis.<sup>54</sup>

Around the Gulf, the government claims conditions of water supply are near back to normal and water consumption has lowered. But with a 41 percent drop in rainfall combined with population density, water supply prospects remain critical.<sup>55</sup>

Though there seems to be no quick fixes to Iran's water problems, the fact is that the country is still endowed with major water resources along its Western borders with Iraq. Moreover, though only half of Iran's arable land is cultivated, it accounts for nearly 85 percent of the country's food supply, and 25 percent of the country's employment rates.<sup>56</sup> By all accounts, Iran's agricultural sector is doing decently well, and does not need to expand but improve. This means that Iran has the opportunity, if not the will, to address its water scarcity issues with Iraq. In this respect, there are a number of practical steps that Iran could take:

- » Make use of wasted river flows in Iran, and from Iran into Iraq;
- » Avoid large agricultural projects especially in the Central and Eastern provinces that compete with the Western provinces for water resources;
- » Rather than divert water to the Eastern provinces through expensive projects that deplete water resources in the West of Iran, give Iraq a larger share of border waters in return for favored agricultural agreements;
- » Divert water resources to industrial growth, which is less water intensive than agricultural growth which is poorly planned;
- » Engage in joint projects with Iraq to revive marshes as part of the region's natural heritage;
- » Encourage better agricultural practices in the Western provinces, including less rice and sugar cane production;
- » Dismantle the so-called "agricultural mafia" in Iran that lobby for



more dam construction and water diversion projects;

» Thoroughly examine and restrict parliamentary proposals on more dam and water diversion projects;

» Develop a comprehensive nationwide water management plan;

» Develop and expand inter-agency policies to lead a proactive “water diplomacy” with Iraq;

» Abide by existing international norms that regulate the use of shared waters;

» Avoid using water as a tool to advance political goals in Iraq, and not to view water disputes with the country as a national security threat to Iran.

## Endnotes

- (1) Nikahang Kosar, "Devastating Water Policies: Financial Interests working against National Interests," *BBC Farsi*, April 24, 2018. (Link is missing). Accessed August 13, 2018.
- (2) Fars News Agency, *We Must Speak to Neighboring Countries About Water*, <http://cutt.us/ULrIg>. Accessed August 13, 2018.
- (3) Kosar, 2018
- (4) Asqar Zarrabi, Amir Hussein Halabian, Mehran Shabankari, "Plans to Transfer Water from Karoun to Zayandeh Rud," *Esfahan University Research Journal*, <http://cutt.us/TV5zJ>, p. 67-69. Accessed August 13, 2018.
- (5) Mohammad Reza Rahimizadeh, Omid Bozorg Hadad, "Review of Cross-Regional Water Transfers on Iran's Water Resources," *Strategic Information on Agriculture and Natural Resource Sciences*, Vol. 3, No. 1 (1397/2016): pp. 27-42, <http://cutt.us/2fYwA>. Accessed August 13, 2018.
- (6) Farzad Ramazani Bunesh, "There is No Common Narrative on Water Conditions in the Country," Network for Public Policy Studies, <http://cutt.us/fnhVZ>. Accessed August 13, 2018.
- (7) Rahimizadeh, 2016
- (8) "Iran Country Report on UN Sustainable Development Goals," <http://cutt.us/QWM6R>. Accessed August 13, 2018.
- (9) Farzaneh Bazrpour, "Water Crisis in 1396; Leader makes demands on burnt land," *BBC Farsi*, March 21, 2018, <http://cutt.us/O6mvR>. Accessed August 13, 2018.
- (10) "Ghatund Damn No Role in Salty Karoun Water," Network for Public Policy Studies, <http://cutt.us/Y4S54>. Accessed August 13, 2018.
- (11) "Iran parliament Member on Water Crisis in Iran; Our Society Faces Collapse," *BBC Farsi*, June 27, 2018, <http://cutt.us/2Gyhs>. Accessed August 13, 2018.
- (12) "Need to Agree with Afghanistan Over the Water Regime in Harirud," September 24, 2017, *Sustainable Development*, Baqeralulum Research Center, <http://cutt.us/NpVZ7>. Accessed August 13, 2018.
- (13) *Ibid.*
- (14) *Ibid.*
- (15) Banafsheh Keynoush, "Saudi Arabia and Iran: Friends or Foes?" (New York: Palgrave Macmillan, 2016), pp. 88-89.
- (16) Mohammad Taqi Sattari, "Brief Review of Potential Water Tensions in Middle East;" "Tigris and Euphrates: Water or Guns?" Network for Public Policy Studies, <http://cutt.us/bUOxw>, Shams, <http://cutt.us/dwPX>, 30 August 2017. Accessed August 13, 2018.
- (17) "We Must Speak to Neighboring Countries About Water," Fars News Agency. <http://cutt.us/ULrIg>. Accessed August 13, 2018.
- (18) "Iran Stops Flow of Second River Into Kurdistan," Rudaw, June 7, 2017, <http://www.rudaw.net/english/kurdistan/060720175>. Accessed August 13, 2018.
- (19) *Ibid*
- (20) Rahimizadeh, 2016.
- (21) Joshua Levkowitz, "[Iraq wilting: How creeping drought could cause the next crisis,](#)"

Middle East Institute, May 3, 2018, <http://cutt.us/x0StQ>. Accessed August 13, 2018.)

(22) *Ibid.*

(23) Nizar Latif, "Iraq Blames Iran for Water Pollution," *The National*, January 16, 2011; <http://cutt.us/mkfq1>. Accessed August 13, 2018.

(24) "Iran cuts flow of Little Zab to Kurdistan," *Rudwah*, June 2, 2018, <http://cutt.us/y5ynw>. Accessed August 13, 2018.

(25) "Iran-Iraq water deals do not cover Sirwan, Little Zab rivers: Iranian official," *Rudwah*, June 4, 2018, <http://cutt.us/cBgNw>. Accessed August 13, 2018.

(26) Salam Abdulqadir Abdulrahman, "The drying up of the Lower Zab River and future water disputes between Iran, Kurdistan Region and Iraq," International Journal of Environmental Studies, Volume 75 (November 27, 2018), <http://cutt.us/0d6Ro>. Accessed August 13, 2018.

(27) Joshua Levkowitz, "[Iraq wilting: How creeping drought could cause the next crisis.](http://cutt.us/FPTSW)" [Link is missing \(http://cutt.us/FPTSW\)](http://cutt.us/FPTSW). Accessed August 13, 2018.

(28) *Ibid.*

(29) Joshua Levkowitz, "[Iraq wilting: How creeping drought could cause the next crisis.](http://cutt.us/ukf3z)" [Link is missing \(http://cutt.us/ukf3z\)](http://cutt.us/ukf3z). Accessed August 13, 2018.

(30) "Iran halts export of electricity, water to Iraq," *The Baghdad Post*, July 17, 2018, <http://cutt.us/YGCle>. Accessed August 13, 2018.

(31) "We Are Delusional About Development," Center for Strategic Studies, Network for Public Policy Studies, July 2016, <http://cutt.us/VNNz8>. Accessed August 13, 2018.

(32) "Need to Agree with Afghanistan Over the Water Regime in Harirud," September 24, 2017, Sustainable Development, Baqeralulum Research Center.

(33) "Ignoring Water Diplomacy Can Lead to Internal Conflicts in Iran," Center for Strategic Studies, Center for Strategic Studies, Network for Public Policy Studies, November 24, 2016, <http://cutt.us/W2FjF>. Accessed August 13, 2018

(34) *Ibid.*

(35) Ali Javanmardi, *Michael Lipin, Afshar Sigarchi and Behrooz Samadbeygi*, "Iranians Join Major Protest Against Water Shortages in South," VOA, July 26, 2018. <https://bit.ly/2M-Wkveq>. Accessed August 13, 2018.

(36) Seyyed Abbas Araghchi, "Water Diplomacy: From Conflict to Cooperation," World Policy Journal, No. 10 (Winter 2013), <http://cutt.us/Te6N5>. Accessed August 13, 2018.

(37) *Ibid.*

(38) "Building Dams in Turkey, Desertification in Iraq," Green World Monthly, No. 4-5, <http://cutt.us/TIzD>. Accessed August 13, 2018.

(39) Asqar Zarrabi, Amir Hussein Halabian, Mehran Shabankari, "Plans to Transfer Water from Karoun to Zayandeh Rud," Esfahan University Research Journal, pp. 67-69, <http://cutt.us/mX2cU>. Accessed August 13, 2018.

(40) Zahra Yazdani, "Doubts over Transfer of Water from BeheshtAbad," Water Management, July 2016, <http://cutt.us/XWbBB>. Accessed August 13, 2018.

(41) Ardalan, 2018

(42) "Iranian President Criticizes Turkey's Dam Projects," RFE, July 3, 2017, <http://cutt.us/wi4rs>. Accessed August 13, 2018.

(43) "Khorramshahr Clashes had no Deaths," *ISNA*, July 3, 2018, <http://cutt.us/7QdEK>. Accessed August 13, 2018.

- (44) Ahmad Majidyar, “Iraqi Kurds protest Iran’s decision of restricting water flow into northern Iraq,” *Middle East Institute*, June 11, 2018, <http://cutt.us/cgZJh>. Accessed August 13, 2018.
- (45) “Khorramshahr Clashes had no Deaths,” *ISNA*.
- (46) “Calm Revived in Khorramshahr,” *Sharq*, July 3, 2018, <http://cutt.us/PZluX>. Accessed August 13, 2018.
- (47) “Calm Revived in Khorramshahr,” *Sharq*.
- (48) “Eliminating Water Problems in Abadan and Khoramshahr by 10 Tir,” *Mehr News Agency*, July 3, 2018, <http://cutt.us/y5oDI>. Accessed August 13, 2018.
- (49) “Iran’s massive new water project nears completion, threatening Iraqi rivers,” *Rudaw*, June 11, 2018; <http://cutt.us/VQisg>. Accessed August 13, 2018.
- (50) Araghchi, 2013
- (51) “Ignoring Water Diplomacy Can Lead to Internal Conflicts in Iran,” Center for Strategic Studies, Network for Public Policy Studies.
- (52) Abbas Mohammadi, “Need to Improve Foreign Policy on Water and Sandstorms;” Center for Strategic Studies, Network for Public Policy Studies <http://cutt.us/Uvmr3>. Accessed August 13, 2018.
- (53) Mohammad Taqi Sattari, “A Short Note on Basic Steps to Leave Behind Iran’s Water Crisis,” Center for Strategic Studies, Network for Public Policy Studies, August 13, 2017, <http://cutt.us/TERkj>. Accessed August 13, 2018.
- (54) “There are 388 Valleys in Country in Banned Areas for Water Use,” *Fars News Agency*, July 22, 2018, <http://cutt.us/ui7Tw>. Accessed August 13, 2018.
- (55) “Bandar Abbas Water Crisis Similar to Esfahan’s,” *Fars News Agency*, June 16, 2018, <http://cutt.us/QDFYn>. Accessed August 13, 2018.
- (56) “Iran Country Report on UN Sustainable Development Goals,” <http://cutt.us/QWM6R>. Accessed August 13, 2018.



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