## The Middle East Proving Resilient as Food Security Pressures Mount

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## Key Takeaways

- Water scarcity presents a growing threat to the long-term wellbeing of Middle Eastern countries but also provides a unique opportunity for collaboration.
- Climate change, as a threat multiplier, will amplify the effects of shortages, but creative water diplomacy can avert conflict and simultaneously strengthen efforts to address this pressing global issue.
- Bilateral and multilateral agreements on transboundary waters are key to ensuring equitable and sustainable access to water but an international mechanism that ensures compliance is required.

While water scarcity is a prevalent feature of the Middle East and will worsen with climate change, the popular assumption these factors will result in armed conflicts ignores the opportunities for collaboration, innovation and adaptation presented by addressing the shared challenge. Developing consultative, adaptable and sustainable agreements on transboundary waters – aquifers, lake and river basins shared by two or more countries – can enable neighbours to improve relations and reduce the potential for conflict. Agreements can also help to mitigate the effects of climate change, which acts as a threat multiplier rather than serving as a causal factor of water-based conflict.

## Great Ethiopian Renaissance Dam (GERD)

The Great Ethiopian Renaissance Dam (GERD) project demonstrates both how the lack of agreement between vested parties - in this case, Ethiopia, Sudan and Egypt - can cause tensions, but also how creative water diplomacy can avert conflict and encourage proactive policies on pressing global issues, such as climate change. Ethiopia has unilaterally filled the GERD reservoir twice thus far, causing friction between Cairo and Addis Ababa. Its scheduled third - and subsequent - fillings risk depleting Egypt's water budget by 12-20bcm per annum, compromising the country's agricultural and industrial sectors and in turn, undermining food security, livelihoods, and wheat exports.



Despite speculation that growing tensions between Egypt and Ethiopia would lead to military confrontation, Egypt has pursued another course: it has intensified diplomatic activity with neighbouring states - including Uganda, Angola and Sierra Leone - in a bid to leverage political support to reach an equitable solution with Ethiopia. The Egyptian President has also announced plans to build and operate 17 desalination plants to increase non-conventional water resources from 831,690 cm/d to 2.8 million cm/d by 2025. The plans incorporate solar energy and will therefore advance Egypt's move towards developing a low-carbon water sector.



Ethiopia's Grand Renaissance Dam is seen as it undergoes construction work on the river Nile in Guba Woreda, Benishangul Gumuz Region, Ethiopia September 26, 2019. Picture taken September 26, 2019. Tiksa Negeri/Reuters.

Some regional countries are more import-reliant than others, with wider exposure to ongoing global inflationary pressures. Others are facing deep droughts that have heightened demand for imports. Yemen, Syria, Lebanon, Egypt and the broader North Africa region would likely be hit hardest by continued disruptions to Russian and Ukrainian grain supplies. Egypt is the world's largest importer of wheat, bringing in between 12 and 13 million tonnes per year. The country has become increasingly reliant on imports to feed its 105 million population, which is growing at 1.9% per year. Before the war, the country sourced over 70% of its wheat supply from the Black Sea. Separately, Yemen, where over a third of the population faces emergency levels of food insecurity, secures nearly 45% of its wheat imports from Russia and Ukraine.

## Jordan-Israeli Water Agreement

In another creative approach to hydro-politics, the Jordanian government in 2021 agreed to purchase 200 mcm p.a. from Israel in exchange for 600 MW p.a. of photovoltaic energy. The deal was a landmark agreement that allows Jordan – one of the world's most water-poor countries - to secure critical water resources and Israel to meet renewable energy targets, further signalling an improvement of bilateral ties between the two states.



The deal was facilitated by the UAE, and garnered positive support from US climate envoy John Kerry, who attended the signing of the agreement. In addition to the clear environmental and societal benefits, cooperation on water-diplomacy also sends a message to an increasingly energy-conscious global community that MENA regional actors are meaningfully engaged in sustainable development and investments. One of the domestic challenges that may be faced, , however, is crafting public diplomacy campaigns that promote the tangible benefits of cooperation in order to overcome societal distrust of neighbours, domestic budgetary concerns, or diverging energy strategies, which may threaten the integrity of the arrangement.



L-R: Energy and Water Resources Minister Karine Elharrar, UAE Climate Change Minister Mariam Almheiri and Jordan Water and Irrigation Minister Mohammed Al-Najjar sign a water agreement at a Dubai Expo event on November 22, 2021, as US Climate Envoy John Kerry and UAE Crown Prince Mohammed bin Zayed look on. (UAE Foreign Ministry/Twitter)

Other countries in the region can take similar approaches to water-related issues with neighbours as they face serious challenges stemming from water-security.

Turkey's unilateral decision to dam the Euphrates and Tigris rivers has severely limited Iraq and Syria's access to water. Since the early 1990s, Turkey has constructed more than 20 dams along the two rivers as part of its Southeastern Anatolia Project (GAP), in line with policies that Ankara states are compliant with United Nations (UN) conditions for equitable and reasonable use of water. According to the 1987 Protocol on Matters Pertaining to Economic Cooperation Between the Syrian Arab Republic and the Republic of Turkey, Ankara should provide Syria with 500 m3 p/s from the Euphrates. However, UN estimates indicate that Syria currently receives less than 50% of its allocation: approximately 200 m3 p/s.

Syria's water situation is acute: the country continues to face its worst drought in 40 years and its water network has suffered extensive damage due to the war. Syria's limited adaptive capacity to develop non-conventional resources and repair its water infrastructure leaves it dependent on Turkey for a reliable and sufficient water supply. If Turkey continues to ignore the terms of the agreement, Syria will suffer from long-term water shortages which will, in turn, severely undermine efforts to help stabilise the country in a post-settlement environment. It will also compromise Syria's ability to begin agricultural sector-led economic recovery especially since agriculture accounted for 40% of GDP before the war.



An additional symptom of the conflict in Syria is the weaponization of water by the different parties vying for influence and power in the country, which is further exacerbating the shortages. Control of water sources has been used by the Islamic State of Iraq and al Sham as a strategy to gain allegiance and control over a territory, not unlike the tactics used by Hamas in Lebanon. In gaining control of such services, non-state actors are able to lay stronger claim to territories and garner more loyal constituents. Turkey's policies of water retention are likely partly an attempt to counter this, especially in northern and eastern Syria where the Kurdish-led Autonomous Administration of North and East Syria (AANES) have faced a particularly difficult winter. Ankara's move to occupy the northern area and border region came shortly after Kurdish expansion brought the three largest dams in Syria under the AANES' control. Unless regional actors engage in water diplomacy and address hydroissues that threaten them all, the absence of a viable water strategy increases the likelihood that Syria will be an unable to break free of an endless cycle of violence.

Water scarcity's ability to exacerbate existing stresses makes it a pressing issue for governments – not just because of its repercussions on economies, but also on security and social cohesion. Climate change has the potential to amplify the effects of shortages, but it also presents an opportunity to overcome a universal challenge through bilateral and multilateral agreements. In being a common threat impacting most of the region, and directly tied to issues of climate change and renewable energy, there is incentive to cooperate across borders.

Egypt's long-term water strategy demonstrates that countries facing scarcity can choose options other than military escalation and conflict. These choices can stimulate innovation, trade and international cooperation which are not only more effective, but also far less costly in financial, political, and social capital. The Jordan-Israel deal illustrates how collaboration to address water scarcity can improve regional stability and find opportunities for diplomacy instead of plunging into conflict.

However, agreements mean little without a process in place to ensure compliance. Where there is no mechanism, violation of agreements risks exacerbating conflict dynamics, allowing climate change to become a conflict multiplier. Despite the successes of innovative water diplomacy, countries faced with chronic water scarcity would be best served by an internationally administered compliance mechanism which would also enhance collective efforts to address common climate change-related concerns.

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