Water Diplomacy in the Middle East for Transboundary Water Supplies

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Introduction

Increased pressure on transboundary water supplies as a result of rising economic and population needs, exacerbated by climate change processes, can have catastrophic consequences in the Middle East. Management of groundwater extraction from transboundary aquifers must involve sharing the amount of accessible water and preserving its quality in order to ensure that future generations will have access to safe groundwater supplies.

The Middle East is afflicted by internal water mismanagement and conflicts. This necessitates not only the building of water governance institutions but also diverse engagement platforms and other water diplomacy techniques.

The negotiations about water management create the need for Water diplomacy which is a dynamic process that seeks to develop reasonable, sustainable, and peaceful solutions to water management while promoting or informing cooperation and collaboration among riparian stakeholders.

Water diplomacy topics are at the heart of discussions and conversations regarding the necessity of peace-building, cooperation between countries, and Cooperation regarding transboundary surface and ground waters: water diplomacy should not be restricted to diplomats and foreign policy experts, it is primarily the responsibility of water professionals who negotiate management agreements for shared water resources, but this should include representatives of NGOs to participate in transboundary water conversations, the involvement of these parts at all levels will help to establish is the most effective format of diplomacy.

According to experts, the sustainable growth of the Middle East and its political stability rely heavily on the region's countries' continued access to potable water. There are few recorded instances in which conversations on shared water resources led to prolonged efforts to address the underlying causes of an intrastate or interstate violent conflict.

Water Diplomacy Tracks

More technical professionals and actors in foreign policy need to have access to and be able to participate in transdisciplinary water diplomacy tracks and tools such varied discussion platforms, fact-finding missions, study tours, and joint scientific conferences.

Conventionally (water) diplomacy is seen as high-level interaction and dialogue between nation-states. Diplomacy is now defined according to various tracks which vary in terms of formality, actors involved, and purpose.

• Formal Diplomacy (Track 1) Official/Formal communication between state actors with the authority and mandate to speak and make decisions on behalf of their governments or institutions.

• Informal Diplomacy (Track 2 and 1.5) Dialogue between non-officials to build relations, resolve conflict, manage a crisis, or build trust, based on the agreed mandate, roles, and responsibilities. It can include officials in informal roles (Track 1.5), academics, NGOs, faith-based organizations, business partners, media, retired civil servants, and other ‘’insiders’’[1]

Transboundary water in the Middle East:

The fact that 82% of wastewater is not recycled in the Middle East presents a tremendous opportunity to meet water demands. The region is anticipated to suffer the biggest economic losses due to climate-related water scarcity, between 6 and 14 percent of GDP by 2050.[2]

Israeli-Arab situation:

In the Middle East as part of an arid region, groundwater reservoirs are regarded as the most dependable source of water, where the flow in the majority of perennial rivers is very variable due to seasonal fluctuations in rainfall quantity and distribution.

All groundwater reserves in the Middle East, are shared by at least two nations. And it will play a significant part in all peace conflicts. Water agreements are allotment is prominent in the present peace agreement between Israel and Jordan, as well as in the Oslo deal with Palestine.

Israel and the Palestinians jointly exploit all main groundwater sources in the Middle East, including the coastal Mediterranean and highland aquifers. [3] The transboundary (Arava) Araba alluvial aquifer in the Jordan Rift Valley is shared by Israel and Jordan. The Arava Valley aquifer is shared by Jordan and Israel between the Red and Dead Seas.

Israel and Jordan have struck an agreement to jointly develop this international transboundary aquifer in the future, following a thorough examination of the aquifer's future potential in terms of its quality and safe supply. This agreement is incorporated into the Israel-Jordan peace treaty of 1994.

However, Syria, Israel, Jordan, the West Bank, and Lebanon all utilize the Jordan River's resources.

The western Nubian sandstone aquifer is located beneath Sinai (Egypt) and the Negev desert.

Jordan and the Syrian Arab Republic

Implementation of agreements signed between the two countries, especially with regard to shared water in the Yarmouk River Basin still limited by the delaying from the Syrian side. They also agreed to continue a study on the Yarmouk River Basin based on previous studies.

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[1] Klimes, M., Michel, D., Yaari, E.A., Restiani, P. (2019). “Water diplomacy: The intersect of science, policy and practice”, Editorial, Journal of Hydrology, March 2019, https://doi.org/10.1016/j.jhydrol.2019.02.049

[2]“World Bank. 2018. Beyond Scarcity: Water Security in the Middle East and North Africa. MENA Development Report. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/27659 License: CC BY 3.0 IGO.”

[3] Adar, Eilon, Water World, Transboundary aquifers source of conflict or peace https://www.waterworld.com/home/article/16200402/transboundary-aquifers-source-of-conflict-or-peace

Currently, the Joint Jordanian–Syrian Higher Committee is discussing how to make use of the Yarmouk River Basin water and how to protect Yarmouk water against depletion. Talks will also include preparations for winter and storage at the Wadha (Unity) Dam in the Yarmouk River.

From another side, the southern Syria Mountain ridge (Jabel Druze) partially recharges the Azrak aquifer, which spans over eastern Jordan.

Jordan-Saudi

Jordan and Saudi Arabia both extract water from the Disi aquifer. An Agreement was signed between Jordan and Saudi, in 2015 that includes a Mathematical model to be upgraded. With annual monitoring of the Aquifer regarding existing wells which does not reflect the real picture, minimal changes have been encountered. The agreement includes a buffer zone of 10km on both sides have been agreed upon with the Saudi side. (10 km on each side).

Iraqi Turkey Syrian Situation

The river basin that supplies Syria and Iraq, the Tigris-Euphrates, is rapidly drying up. This large region is already struggling to provide for at least ten million people uprooted by conflict. And things could soon worsen; Iraq is approaching a point of crisis.

Both the Euphrates and the Tigris rivers originate in Turkey and flow to the Shatt al-Arab basin in southern Iraq. The Euphrates crosses Syria and Iraq, with Turkey and Syria contributing 90% and 10% to its water flow respectively. On the other hand, the Tigris flows from Turkey to Iraq, with Turkey, Iraq, and Iran contributing 40%, 51%, and 9% of its flow respectively [4]

Initiatives

EcoPeace Middle East's "Good Water Neighbors" initiative in the Lower Jordan Valley is a well-known illustration of a bottom-up method. In this approach, Palestinian, Jordanian, and Israeli mayors and villages collaborate with their transboundary neighbors to rehabilitate their shared water resources.

Academics and water professionals from Turkey, Syria, and Iraq participated in the Euphrates-Tigris Initiative for Cooperation (ETIC) to promote shared knowledge through data exchange and collaborative planning. As these many instances illustrate, the tools of water diplomacy may contribute to the creation of routes across societies for inclusive involvement and strong partnerships in water decision-making – a prerequisite for attaining a water-smart and peaceful global community.

[4] Kibaroglu, Aysegul, and Waltina Scheumann. "Evolution of Transboundary Politics in the Euphrates-Tigris River System: New Perspectives and Political Challenges." *Global Governance* 19, no. 2 (2013): 279–305. http://www.jstor.org/stable/24526371.

The techniques of water diplomacy can help to the creation of paths between countries for inclusive involvement and strategic relationships in water decision-making, which is essential for attaining a water-wise and peaceful global community.

Suggestions and Solutions:

The World Bank (2017) in a study of essential problems regarding water security raised three questions:

1. Are the region's water resources managed efficiently and sustainably?
2. Are water services provided dependably and affordably?
3. Are risks associated with water being effectively identified and mitigated?

Transboundary basins and aquifers in the Middle East can generate a network of hydrological, economic, and social connections between communities. Governments must work together to manage transboundary water resources. More cooperation is required, particularly to overcome the sensitivity to climate change consequences where water is already scarce.

Economic cooperation is essential. Agriculture, industry, energy, and water supply and sanitation, which rely heavily on water, must collaborate on a transnational level

Data voids must be filled. Governments in the Middle East must quickly enhance their systems for monitoring transboundary waters, particularly groundwater, and exchanging data with other governments as part of cooperation agreements.

Transboundary water management necessitates tackling a number of difficult environmental, socioeconomic, and political challenges that may incur substantial expenses, such as those related to infrastructure construction, the acquisition of monitoring equipment, and the creation of studies.

At various stages of management and development, distinct finance and financing sources may be necessary. Typically, national budgets should pay at least the core costs of joint bodies, mostly for reasons of sustainability. In some instances, national budgets may not be adequate to solve such difficulties, especially in underdeveloped countries where funding may be redirected to other priorities. In these situations, new and alternative procedures could be a viable choice for filling financial shortfalls.

Financial resources are required to fund institutional expenditures such as salaries and office space, as well as program expenses such as the collecting of data and information to monitor the condition and quality of water.