



Photo Source: *The New Atlantis* (2009)



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## Water Rights and GCC Efforts

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Water is undoubtedly the lifeline of our planet and the source from which ecological balance is maintained in order to sustain the lives of every plant, animal, and human on Earth. It is the cycle that provides and supports all beings and without which life as we know it would cease to exist. Thus, the quote “who has water resources in the appropriate quantities and quality, possesses the world” cannot be understated.

Yet, our most valuable resource has been threatened significantly due to challenges rising from climate change and environmental crises and conflict around the world. To address this issue, the United Nations (UN) Member States established a “blueprint for peace and prosperity” referred to as the 2030 Agenda for Sustainable Development. The Agenda calls on all countries to work toward 17 common Sustainable Development Goals (SDGs) and 169 targets aimed at nothing less than “transforming our world” to one that is more sustainable for future generations. SDG no. 6 is specifically focused on the importance of achieving “clean water and sanitation for all.”

### Water Rights



*Photo Source: [Water Watchers](#) (n.d.)*

The provision of safe and clean drinking water is a social determinant of health according to the interpretation of Article 12 of the International Covenant on Economic, Social and Cultural Rights. As stated in the Millennium Declaration of the United Nations in 2000 under the principles of environmental protection, emphasis should be placed on "stopping the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels, which promote both equitable access and adequate supplies."

On July 28, 2010, the General Assembly of the United Nations adopted resolution No. 64/292 acknowledging the human right to water and sanitation. The text of the resolution emphasizes the



importance of everyone having equal access to safe and pure drinking water and sanitation, as an integral part of the realization of all human rights. The resolution emphasizes the responsibility of the State to protect the right to water to achieve equity and equality. It considers access to safe and clean drinking water to be a prerequisite to fulfilling the right to life.

In other words, the realization of the right to water and provision of a minimum decent life or the so-called “Basic Lifeline,” requires water availability in adequate quantities and appropriate quality. What this in essence means is that the State must:

- Provide adequate, safe, and clean water to the whole population.
- Provide water at a cost accessible to all segments of the population, especially those most vulnerable or marginalized and living in rural areas.
- Ensure equity between poor and rich households’ burden of expenses via usage of the increasing block tariff system (in the context of cost recovery and not pricing).
- Ensure access to information on water and causes of interruptions.
- Properly manage the integration of water resources and the use of the various policy instruments to rationalize the usage of it (i.e. laws, incentives, education, etc.).
- Pay more attention to water demand management and not only supply management, as is the case in most of the Arab countries.
- Improve the efficiency of water transport networks.
- Rationalize subsidies for the various sectors consuming the most water, especially the agriculture sector.

### **Water Issues in the GCC**

The water issue is complex and includes many sub-issues such as water scarcity, water pollution, water quality, water allocation among various uses and sectors, and water cost recovery, among others. The increased pressure on water resources in GCC countries has come as a result of population growth, changes in lifestyle, industrialization, urbanization and climate change. All of these have compounded the already arid climate, leading to water scarcity and increased competition for water supply for agriculture, industry and households throughout the rapidly growing cities in the region.

In GCC countries, water consumption in the agriculture sector averages around 77% of total water usage. The remaining is divided among the industrial sector, accounting for 18% and household use accounting for 5% of the available water resources.

Water quality is also a major area of concern. Contamination of water resources by industrial and agricultural pollutants greatly impacts biodiversity which in turn affects the population, for example by contaminating food (fisheries for instance) and other consumables. Thus, preserving and supporting good water quality benefits the environment, public health, and ensures quality water resources for future generations.

Overall, it should be understood that for the GCC countries, water scarcity is a national security issue as the region falls below the water poverty line, meaning that the average water availability per capita is lower than the critical amount of 1,000 cubic meters per year per capita.



The lack of water availability in the region forces GCC countries to rely on non-conventional water recourse such as desalination technology, which is expensive and produces by-products that are themselves harmful to the environment. GCC countries already generate about 40% of the world's desalinated water from over 400 plants throughout the region. Desalinated water provides some 42% of drinking water in the UAE, 70% in Saudi Arabia, 86% in Oman, and 90% in Kuwait. By 2025, Saudi Arabia aims to achieve a desalination capacity of 8.5 million cubic meters per day, equivalent to meeting the daily water needs of around 34 million households (four times the current number of households in Saudi Arabia).

Desalination capacity of this volume requires multi-billion-dollar investments. The price of desalinated water has already fallen from US\$5.00 per cubic meter in the 1980s to as low as US\$0.40 - 0.50 in recent projects, thus making desalination increasingly affordable. In addition, desalination costs are expected to drop further by upwards of 50% by the year 2030 due to technological improvements, process optimizations, standardized designs, and renewable hybrid configurations.

However, many challenges remain within the desalination industry. For instance, a long-term solution for managing saline brine, a by-product of desalination that gets flushed back to the ocean, is still needed. The dramatic increase in the uses of desalination also has the potential to exacerbate the already naturally high salinity levels in the Gulf and Red Sea to the detriment of vast marine ecosystems.

### **GCC Efforts to Mitigate the Water Crisis and Steps Forward**

Despite the mounting challenges, the GCC countries have managed to overcome complex water issues and continue to meet the water needs for their populations. They have implemented integrated water resource management strategies with policies aimed at utilizing new technologies such as water treatment, desalination, and cloud seeding to increase water supply as well as push forward various targeted campaigns meant to increase water efficiency and conservation.



Photo Source: [idom](#) (2024)

Umm Al Quwain seawater desalination plant - UAE



The GCC countries, especially the UAE and Saudi Arabia are also deploying artificial rain technology, or “cloud seeding,” to increase rainfall. This is a particularly useful tool since the technology is not constrained by seasons and can be carried out any time of the year when “seedable” clouds are detected. In fact, the UAE and Saudi Arabia are becoming leading countries in this area with very ambitious cloud seeding programs currently being implemented to address water security.

Saudi Arabia will be the host of the World Water Forum in 2027 which underscores the GCC's leadership in water management and at the same time provides a platform to showcase their achievements and share their knowledge in water security with the world.

Yet, in order to solve water issues in the region, more usages of new technologies such as geographic information systems, remote detection systems and other supporting systems for mathematical modeling in the field of planning and management of water resources is needed. A lot also needs to be done in terms of water research and GCC water cooperation in order to achieve sustainable water security for GCC countries in the long term.

Priority should be given to shifting the water sector to function as a regulator instead of provider of services in order to meet SDG 6 and the human water right. Encouraging the private sector role in constructing, operating and maintaining various water projects, and in supporting scientific research in the GCC states is of equal importance for sustainable water management in the region.

Meeting increasing water demand for households and sectors like tourism, industry and agriculture is the greatest challenge and there is a lot to be done. Water is a fundamental right to all people and states must fulfill their duty to make it available to all populations in adequate quantities and appropriate qualities. Failure to do so would amount to social injustice and a violation of the human right to life, as well as a violation of other universally recognized environmental rights.

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