

EMPOWER A WOMAN WITH WATER AND SHE CAN CHANGE HER CITY: A FOCUS ON MENA



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Water scarcity is a key issue increasingly affecting people living in MENA cities due to multiple factors. Women and girls are among the worst affected by water scarcity because of their social roles and responsibilities. Although they play a key role in supplying livelihoods and food security, their ability to act on the management of water resources often remains very limited. This brochure aims at better understanding this issue, identifying approaches for inclusive and gender-sensitive water management, and promoting women's empowerment in water resources governance. This document includes key data and excerpts from interviews carried out with regional experts, activists and practitioners from Lebanon, Jordan, Morocco, Palestine and Egypt.



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WATER SCARCITY IN CITIES IN THE MENA REGION

What we are witnessing nowadays at an alarming rate is an increasingly urgent demand for a scarce resource: water. Although it is a global emergency, the phenomenon is concentrated in certain regions. Recent research points out that 11 out of the 17 most water-stressed countries in the world are currently located in the Middle East and Northern Africa (MENA) region. Bahrain, Israel, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, and the United Arab Emirates (UAE) are all heavily dependent on groundwater and desalinated water and currently figure among the least water-secure in the world.

The future looks equally grim for other MENA countries. Morocco and Tunisia are subject to high water stress with a withdrawal of 40 per cent to 80 per cent of freshwater resources, while Jordan is one of the world's driest countries. As its namesake river progressively runs dry, available evidence shows that Jordan's renewable water supply only meets two thirds of the population's needs, with groundwater used at twice the rate of replenishment. To complete the list, water supplies are alarmingly low in Egypt and could reportedly dry up by 2025.

Water scarcity, combined with pre-existing factors such as displacement, conflict, weak governance, and political and civic unrest, will necessarily amplify other issues affecting the region.

The implications will be the harshest for the marginalised, impoverished, and least resilient members of society – particularly the elderly, children, women and young girls.

According to the World Bank, in the 1960s, 35 per cent of the population in the Middle East was estimated to be living in urban centres. Today, this figure has almost doubled, reaching 65 per cent. In a report recently published by the Organisation for Economic Co-operation and Development (OECD), Northern Africa is the most urbanised region on the African continent, with 78 per cent of its population living in cities. The interconnection between water security and fast-paced urbanisation in developing countries is clear. Urban dwellers are especially concerned by the issue, and the OECD predicts that by 2050 water demand will increase by 55 per cent.

To compensate for the lack of water infrastructure in unplanned urban areas, people are developing informal practices to access drinking water. Such precarious solutions often lead to drastic health and sanitation problems. Urban centres in the MENA region are forecast to be at the epicentre of an impending water crisis, as 60 per cent of the population lives in severely water-stressed conditions, with an average water availability estimate of only 1,200 m³ per year. According to the World Bank, 82 per cent of the water in

the region is not used efficiently, and water wastage and misuse are main factors contributing to water scarcity.

The issue, however, is more complex and cannot be reduced to mere mismanagement. **Fast-growing urban centres have not kept pace with unrestrained population growth, and consequently, the increasing demand for water considerably outweighs the available supply.** This includes the need to have clean water for sanitation purposes to maintain up-to-standard health conditions.

According to Nadim Farajalla, Program Director at the Planetary Security Initiative, in Beirut, unplanned urban growth after the war has outpaced water infrastructure investments and contributed to increased water demand:

"In Beirut, [...] buildings with four stories and circa eight apartments were replaced by towers with ten or 20 floors and 80 apartments. The water demand passed from 8 m³ of water per building daily to 80 m³, and the sewage discharge passed from 90 m³ per building to 900."

The circumstances in which continuously expanding urban spurts and informal settlements are growing create even more challenges. Vulnerable communities living in the spreading outskirts or the urban cores in the MENA region are severely at risk of natural disasters such as floods, sea level rise, tsunamis, and droughts, to name a few.

Among climate hazards, droughts are a reality increasingly causing tensions between Moroccan communities, said Daniele Rossi Doria, Ph. D. Researcher from Erasmus Rotterdam University, during an interview:

"If 15–20 years ago, in the Al Haouz plain in Morocco, there would have been one year of drought each five. Now the area experiences one year of drought each two."

He also added how droughts contribute to aggravate an already intense water usage for purposes including tourism and agriculture:

"Inclusive tourism and agricultural activities for export purposes have also caused an overexploitation of groundwater, with aquifers that are now found deeper and deeper".

Non-existent or severely leaking water infrastructures that are prone to pollution and misuse will not support vulnerable communities in the aftermath of a natural disaster. Unsustainable water consumption and loss of freshwater in agricultural and food supply chains reportedly cause an annual loss of 80 to 177 m³ of freshwater per capita in the MENA region, with 57 per cent of collected untreated wastewater dispersed in the environment. Circumstances vary across the region, but a vast majority of the population is under life-threatening pressure due to water scarcity.

GENDER INEQUALITY AND WATER SCARCITY

In the future, all of us will have to cope with water stress. However, vulnerable populations will be the first to be impacted by higher water-related insecurity and scarcity. Women are particularly affected by the issue; they are key actors in supplying livelihoods and play a major role in securing food. Women are also often responsible for fetching water. When water becomes less available, the journey to fetch this precious commodity can become longer, more tiring, and time-consuming, sometimes even increasing the risk of predatory behaviours and violence, including Gender-based Violence (GBV). Women and girls also have specific water-related needs: menstrual hygiene requires clean water and sanitary products, which then require safe disposal. Infrastructures – and the way they are designed, built and located – also play a role if not conceived in a gender-sensitive way. For example, if toilets are situated outside the settlements or are shared with men, there is a greater risk of GBV.

As the World Bank [reports](#), the MENA region has one of the world's highest levels of forced displacement, which may grow even further with water insecurity and lead to the outbreak of new climate-related conflicts. As the main caregivers in traditional communities and households,

female migrants, internally displaced women, and refugees in the MENA region often face compound threats, with women in refugee camps dealing with reduced access to clean, potable water and a heightened risk of sexual GBV.

Water quality, access and cost are a complex issue in Palestine, with women bearing the brunt of the situation, as explained by Professor Gül Özerol from the University of Twente:

"In Palestine, while the conflict with Israel sidelines the gender issue, intersectionality still plays an important role in exacerbating the effects of water scarcity on women. In areas where both tap and ground water resources are contaminated (96.4 per cent in Gaza), women and girls have to buy and carry water from trucks or desalination plants, which can be also five times more expensive."

Women are the community building agents, main water bearers, and family caregivers in traditional households. Although they play a key role in supplying livelihoods and food security, they often have a limited ability to act on water management, due to social, economic, and cultural factors. Women need to be central actors in this process.

Countries in the region should provide equal access, participation, and opportunities to women in the management of water, and include them in decision-making. When women are stakeholders and decision-makers in steering committees and leadership positions in the water infrastructure sector, they can shape the agenda, establish priorities and craft objectives that can positively influence communities and households in the region.

At present, data from several countries paints a picture of gender imbalance in the water infrastructure sector. In [Palestine](#), only 4.5 per cent of water, sanitation, and hygiene workers are women, while in the Water Authority of Jordan (WAJ), only 12 per cent of staff members are female. In [Morocco](#), the public service infrastructure is strongly male-dominated; between 2011 and 2020, only 11.8 per cent of women were appointed to decision-making positions, and the female presence in the workplace is just 34.5 per cent. In 2019, a woman led Lebanon's Ministry of Energy and Water for the first time, but a [Global Water Partnership Report on Women in Water diplomacy](#) revealed that most women in the Lebanese water sector are not promoted, despite their professional responsibilities and relevant academic titles.



In Palestine
ONLY 4.5% OF WATER, SANITATION, AND HYGIENE WORKERS ARE WOMEN

In Water Authority of Jordan
ONLY 12% OF STAFF MEMBERS ARE FEMALE

In Morocco, between 2011 and 2020,
THE FEMALE PRESENCE IN THE PUBLIC SERVICE INFRASTRUCTURE WAS JUST 34.5%

EXAMPLES OF MAINSTREAMING GENDER IN THE WATER SECTOR

Women should have a seat at the decision-making table, whether they are policymakers, leading figures spearheading the water agenda, or crafters of locally owned projects that benefit vulnerable communities.

Deyala Tarawneh, Assistant Professor at the University of Jordan, highlighted the importance of women's participation and leadership in this male-dominated sector:

"Climate justice and water management require women leadership because of representation matters. If you have more women in leading positions, they can take more gender-sensitive decisions."

Countries such as Egypt, Morocco, and Tunisia are adopting measures and long-term strategies to enhance water quality, rationalise water use, and create an enabling environment. Key entry points for women to become part of long-term plans are lacking, however, leaving them with no voice and no say in how water scarcity will affect them in the short and long term.

Some key examples from the MENA region of bottom-up, grassroots initiatives that are enabling women to play a role in water management are progressively emerging. Governments in

the region should be inspired by such initiatives and actively promote them, combining policymaking and gender-budgeting resources with investments to improve the gender-sensitive approach of cities and communities towards water management.

In Jordan, the government has supported the Water Wise Women (WWW) project, which trains local women, including refugees, to be plumbers. In this way, women feel empowered to be on the front line of water mismanagement, able to intervene and repair water leakages, and act promptly to save precious resources.

In Egypt, the Women and Water Diplomacy in the Nile (WIN) Network established by the Stockholm International Water Institute supports transboundary efforts for a cooperative approach towards water scarcity, especially in conflict areas. The platform connects women decision-makers and builds their capacities; women stand front and centre in peace-related agreements, creating durable solutions and attenuating instances of conflict.

In Palestine, the Palestinian Women Water Practitioners Network (PWWPN)

unites women and water professionals. Members of the network are active in the field of water and sanitation as well as more broadly in the growth and empowerment of women. The network promotes their profiles, supports their capacity building, and endorses them as change-makers and leaders in society. Members of the network come from grassroots and non-governmental organisations located throughout Palestine, but they are also active on a regional basis. The network has significantly advanced the work towards more gender-sensitive water management and has improved women's access to Water Sanitation and Hygiene (WASH).

In Morocco – where the population experiences water scarcity, drought, and irrational management of resources – women in different sectors and positions organised a water-centred women's leadership event on International Women's Day that attracted considerable attention. Before the event, a widespread awareness-raising campaign mobilised as many people as possible to promote collective, sustainable action and the virtuous management of water resources.



INVOLVING, EMPOWERING, AND GRANTING WOMEN ACCESS TO WATER MANAGEMENT



1. Collect sex-disaggregated data on water access and usage.

2. Map gender-related roles, needs, and inequalities in the water sector.

3. Raise-awareness and enhance women's capacities in water resources management.

4. Promote the role of women in water diplomacy and cooperation.

There are several ways to make sure that women are not only benefitting from programmes that broadly target access to water in given communities, but that they are allowed to handle the tools to shape the agenda. In turn, there are also ways for governments, organisations, and institutions to magnify women's voices, amplify their needs, and bring their concerns into the spotlight.

Collecting sex-disaggregated data on water access and usage can provide a better understanding of women's needs and ensure they are considered when designing and implementing dedicated projects. By mapping such gender inequalities, the root causes can be identified and investigated, and a path towards gender transformative results can be created. In the same spirit, gender mapping and landscaping need to be conducted to have a clear picture of how many women are in the water and sanitation (and related) sectors, and in which roles.

Awareness-raising and capacity-building activities should target women, since they are mainly responsible for water management at the household and community level. The leadership and participation of women in water governance and city management should be at the forefront of WASH activities. Designing and implementing water management initiatives that focus on women's participation can take time but is the only way to build trust and ownership. We discussed this approach with May al-Ibrashy, founder of the Megawra-Built Environment Collective that has been

implementing the Athar Lina conservation initiative in old Cairo for circa 10 years:

"In Cairo, as the Athar Lina initiative built trust in the community, local women were more and more interested in not only participating in the assessment process or events, but also on working on the coordination of the initiative."

Institutions, municipalities, townships, and cities must **invest in gender-responsive initiatives and programmes**. The capacities of local and national authorities should also be developed and strengthened with a view to reinforcing gender-sensitive urban water infrastructures and services, protecting and improving those that already exist, and enhancing inclusivity in such contexts. Cities are gradually adapting to water scarcity, piloting new systems and working to ensure inclusive water access. As explained by Radhouen Bouden, Mayor of Kairouan in Tunisia:

"Kairouan is a region that suffers from water shortage. We have implemented two pilot projects to reduce the use of drinking water in the irrigation of green spaces and use another alternative, such as a rainwater basin."




Transboundary and regional projects, especially in conflict settings, should promote the role of women in water diplomacy and cooperation, mainstreaming gender sensitivity in peace processes.

Cities Alliance supports local authorities and communities in the MENA region to narrow the gender gap in leadership at all levels of the water sector, and to ensure water security for all. It does so by enhancing their capacity in designing and implementing gender-sensitive water management policies and supporting the implementation of women-led water solutions. Within this framework we have developed [the Her4Climate tool](#) to better understand the link between women's empowerment and climate hazards.

Cities Alliance and its members are committed to the creation of sustainable, inclusive, and resilient cities and communities with equitable access to resources. Nobody gains from leaving the immense potential of girls and women untapped. Empowering them depends on healthy living conditions that necessarily include access to safe water and sanitation.

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