



Sudan, WASH assistance for conflict-affected communities in East Jebel Marra. © IOM 2018/by Enas Osman

In the Middle East and North Africa, migration is a key trend. The region hosts roughly 14 per cent of the global international migrant stock (refugees and other international migrants), including those originating from within the region and those arriving from outside the region. The size of the migrant population has increased from under 15 million in 1990 to nearly 35 million by 2015. In addition, the region hosts the largest population of Internally Displaced Persons (IDPs), accounting for almost 41 per cent of all IDPs globally at the end of 2016 and totaling over 16 million.¹

In conjunction with such migration dynamics, the region is one of the most water scarce in the world, with 18 out of 22 Arab states falling below the renewable water resources annual threshold of 1,000m³ per capita and 13 states falling below the absolute water scarcity threshold of 500m³ per capita, per year. Moreover, the World Bank listed Jordan, Iraq, Lebanon, Morocco and Syria as countries that will experience a significant increase in water stress driven by climate change in the coming years.² Another growing concern is that while over 56 per cent of the region's population now lives in cities, water for agriculture remains a priority to ensure food security and to maintain rural livelihoods in middle and low-income countries.³ This is significant as the agricultural sector

continues to consume nearly 80 per cent of the region's fresh water resources, particularly groundwater.⁴ For example, in Iraq, where 85 per cent of the water withdrawal is used for agricultural activities, water shortages have a clear economic impact that is not only affecting the return of IDPs but also continues to increase unrest and create tensions between communities.⁵ For these reasons, during the World Economic Forum in 2015, experts raised the alarm that the ongoing water scarcity threat is "greater even than political instability or unemployment".⁶

Though lack of water security has long been identified as one of the drivers of migration - as it undermines the lives and livelihoods of people- it is difficult to draw a direct link with migration. This difficulty stems from the fact that water can rarely be separated from other social, political, economic and demographic drivers.⁷ However, like other environmental factors of migration, water scarcity can lead to both temporary and permanent displacements. Most people who are moving as a result of water scarcity try to reach a source of water closest to home and to search for other economic opportunities, with the majority of the migration fluxes tending to be within countries, rather than across borders.⁸

1. 2017 Situation Report on International Migration: Migration in the Arab Region – IOM and ESCWA, December 2017

2. Beyond Scarcity Water Security in the Middle East and North Africa – World Bank, August 2017

3. A Conceptual Framework for Understanding Water Security in the Arab Region – ESCWA, March 2018

4. Ibid

5. N. A. Al-Ansari and S. Knutsson, "Toward Prudent Management of Water Resources in Iraq," Journal of Advanced Science and Engineering Research, Vol. 1, 2011, pp. 53-67. For more information regarding IOM Iraq Special Report on Water Scarcity, please click [here](#)

6. Water Stress Poses Greatest Threat to MENA Region, Rome, 15/03/2018

7. Eva Mach /IOM "Water and Migration: How far would you go for water?" IOM December 2017.

8. Ibid



Water scarcity in the region involves multiple factors.

This includes climate change leading to droughts and floods, sea level rises leading to salt-water intrusion into freshwater, and low water quality but also lack of access due to inadequate infrastructure or management practices. As water becomes scarcer it also becomes more expensive. The poorest communities who live in slums pay 5 to 10 times more per liter of water than wealthy persons in the same city due to lack of connectivity to main water networks.⁹ This means that already marginalized communities may suffer more from water insecurity even when water is physically present.

In terms of vulnerability, some argue that the most vulnerable are those that are trapped and do not have the means to (temporarily) migrate. It is also important to note that adaptive capacity is intricately and intrinsically linked to social structures, such as gender, class and ethnicity.¹⁰ For example, water insecurity can disproportionately affect women, as “deeply entrenched discriminatory practices” that are often exacerbated by conflict and water scarcity, can make it difficult for women and girls to assert decision-making power with respect to water security.¹¹

Water scarcity is further aggravated by the impact of pollution, challenging industrial agricultural practices and policies. Lebanon, although a water rich country, struggles as a result of its water resources being severely polluted. Domestic and industrial sewage goes largely untreated and unsustainable agricultural practices worsen the situation, where Lebanon’s major water resources have very high levels of bacterial contamination.¹² Moreover, unsustainable water management practices and water governance shortcomings are also among the key challenges to be addressed. Recent migrants (including those displaced) often gravitate toward such areas as they may not be able to afford accommodation in more affluent neighborhoods.

Another crucial element is water governance at regional, national and local level. For instance, the management of transboundary water flows is a concern in the context of the Regional Syria Crisis, as watershed simulations of future transboundary Yarmouk-Jordan River flow from Syria show that Jordan would receive 51 to 75 per cent less water compared to historical flow.¹³ This could further lead to migration as people seek more suitable ground for farming purposes. Another example of water



Flash floods in Southern Morocco © Sean Fitzgerald , 2014

governance and upstream management at regional level can be seen in Iraq, where most of the fresh water comes mainly from Turkey (71 per cent), Iran (7 per cent) and Syria (4 per cent); and only 8 per cent comes from within the country.¹⁴ At national level, the importance of water governance can also be seen in Iraq, where the Islamic State of Iraq and the Levant (ISIL) utilized Iraq’s water resources and control over dams to cause water shortages or floods and to cut off supplies to the largely Shia south of Iraq.¹⁵ Lastly, at the local level, inadequate water governance and water scarcity can lead to increasing social tension further leading to displacing people or preventing them from returning. For example, tribal disputes linked to access and use of water have started to occur in southern Iraq, but also in areas of Yemen and Sudan. Furthermore, in the Maghreb, water scarcity coupled with inadequate water governance can increase inequalities.¹⁶

From a development perspective, water represents one of the fundamental resources required for individuals and communities to meet their basic needs and achieve sustainable livelihoods. In fact, water and the management thereof embody a specific goal within the 2030 Agenda for Sustainable Development (SDG), namely SDG 6: *Ensure availability and sustainable management of water and sanitation for all*, and SDG 11.5: *water related disasters*. SDG 6.4 specifically addresses water scarcity, aiming to ensure there is sufficient water for the population, the economy and the environment by increasing water-use efficiency across all sectors of society. The connection between water scarcity, human mobility and development is the need for water at every level of economic production, from subsistence agriculture to heavy industry; people cannot produce goods and services without water.

9. UNDP. Human Development Report 2006 Beyond scarcity: Power, poverty and the global water crisis, pp. 18 and 23

10. Eva Mach /IOM , 2017

11. Report Symposium on Women and Water Security for Peacebuilding in the Arab Region Beirut, 9-10 May 2018

12 For more information please see Lebanon Crisis Response Plan 2017 –2020 Click [here](#)

13. Deepthi Rajsekhar and Steven M. Gorelick, “Increasing drought in Jordan: Climate change and cascading Syrian land-use impacts on reducing transboundary flow “ Science Advances 30 Aug 2017: Vol. 3, no. 8

14. [Nadhir](#) Al-Ansari, Mystery of Mosul Dam the most Dangerous Dam in the World: The project” Journal of Earth Sciences and Geotechnical Engineering, vol 5. no.3, 2015 15-31

Thus, migration can be an adaptation strategy for populations whose livelihoods have been disrupted by prolonged water scarcity. Often, working-aged individuals seek better opportunities for employment in areas that are not suffering as acutely from water scarcity and send remittances back to families left behind. This however, usually reinforces and augments existing trends of rural to urban migration that can lead to unmanaged growth, especially through informal settlements, which in turn can create increased water stress in certain areas – as noted above. This leaves migrants in direct competition for scarce resources with already present resident populations, which can stoke xenophobic tensions and discrimination, potentially further marginalizing migrant communities.

From a humanitarian perspective, the provision of Water, Sanitation and Hygiene (WASH) services are usually one of the highest priorities following the onset of any crisis, whether sudden or slow-onset, man-made or natural. WASH needs in the MENA region are within the top 4 priority needs,¹⁷ while only on average only 40 per cent of the needs get funded. UNICEF estimates that due to the protracted conflicts across the region, 56 million people are in dire needs of WASH assistance.¹⁸

Whilst policies and response usually focus on addressing the immediate humanitarian needs resulting from violence and political turmoil, conflicts and instability in the region are often caused and/or exacerbated by water shortages. For example, the impact of large influxes of people due to conflict regarding/for water resources is highlighted in Jordan and Lebanon. Jordan has one of the lowest levels of water availability in the world and hosts

the second largest number of Syrian refugees per person, following Lebanon. This places tremendous stress on already limited water resources: currently the country pulls 160 per cent more water from the ground than nature puts in.¹⁹ Addressing the issue of increased pressure on water resources due to the mass influx of displaced people is important from a stabilization and conflict mitigation perspective, as this may lead to growing tensions between displaced/migrant populations and host communities.

IOM Initiatives

In line with the Arab Regional Water Strategy, IOM, based on its mandate and expertise, actively supports its Member States in the integration of migration management concerns into water governance. IOM continues to examine the nexus between migration and water governance and exploring potential synergies between both domains. IOM and its partners promote interventions throughout the whole migration cycle to better manage migration that is fueled by water scarcity. In countries of origin, IOM contributes to reducing the root causes of forced and unmanaged migration as much as possible by promoting sustainable water management. For those on the move, IOM seeks to ensure safe access to adequate WASH services, while at the same time looking at how integrated water management can contribute to addressing the root causes for conflict and drivers of migration. Lastly, for those that are forced to move, IOM promotes migration as an adaptation strategy through well managed migration frameworks.

Figuig's palmgrove, Morocco, where the local population worked towards mixed-farming thanks to diaspora's plots.
© IOM 2015/Hind Aïssaoui Bennani



15. UNEP. Technical Note: Environmental Issues in Areas Retaken from ISIL - Mosul, Iraq. Rapid Scoping Mission July-August 2017

16. Annabelle Houdret, Zakaria Kadiri, Lisa Bossenbroek, "A New Rural Social Contract for the Maghreb? The Political Economy of Access to Water, Land and Rural Development" Middle East Law and Governance, Volume 9, Issue 1, pp. 20 – 42.

17. Based on information from Financial Tracking Service - OCHA - For more information please click [here](#)

18. For more information, please click [here](#) for more information from UNICEF MENA

19. Jordan warned it is getting hotter and drier than anticipated, Associated Press, 11/06/2017

PLACES OF ORIGIN: PREVENTION OF DISPLACEMENT AND UNMANAGED MIGRATION

IOM tries to prevent unmanaged migration and displacement in places of origin through a diverse range of activities. As the interlinkage between water resource management, development and human mobility is complex, IOM supports knowledge production to inform development, migration and environmental public policies. More specifically, IOM has supported rural livelihoods projects in different countries in the region. In Morocco for example, IOM is working to engage diaspora in its contribution to sustainable development. Concretely, this intervention intends to highlight the diaspora's engagement in agro-ecological projects, through knowledge sharing, oriented remittances, land lending or sustainable investment. Aiming at local climate resilience and job creation, this work has a specific focus on agro-ecological water management, in order to address one of the major challenges of Moroccan agriculture: water scarcity.

More broadly, IOM has been supporting governments in the region to mainstream migration in sectoral strategies and local planning on the environment, employment and sustainable development, to ensure that issues of mobility are better addressed in these areas which, in turn, are impacted by water scarcity. For example, to support the government of Sudan, IOM signed a Memorandum of Understanding with the Higher Council for Environment and Natural Resources to help implement the National Adaptation Plan to Climate Change. The collaboration focuses on key areas such as building community resilience to the effects of climate change and variability and to implement disaster preparedness strategies to reduce the humanitarian impact of various hazards in Sudan, including drought.

IOM WASH Assistance in 2017 in the MENA REGION

**Individual beneficiaries are estimated based on average household size by country*



950,000

Individuals assisted with safe water



12,500

Individuals assisted with sanitation services



5

Countries of Operation in MENA region



139,100

Individuals assisted with access to latrines



1,05 million

Estimated total of individuals assisted *



180,000

Individuals assisted with hygiene promotion

PLACES OF DISPLACEMENT: ADDRESSING HUMANITARIAN AND EARLY RECOVER AND TRANSITION NEEDS

IOM addresses needs in displacement affected communities through a range of activities that apply a humanitarian-peace-and development lens. IOM's WASH programmes in humanitarian settings are focused on the provision of water, sanitation and hygiene services to displaced populations and affected host communities. IOM, in collaboration with its partners, ensures that water resource management is integrated into its emergency response planning, to reduce the negative impacts of migration as water scarcity can be both a cause and result of displacement. All of IOM's emergency interventions are designed in accordance with humanitarian principles using Sphere as a general guidance for defining its sector-specific responses, while also taking the local context into consideration.^{20 21}

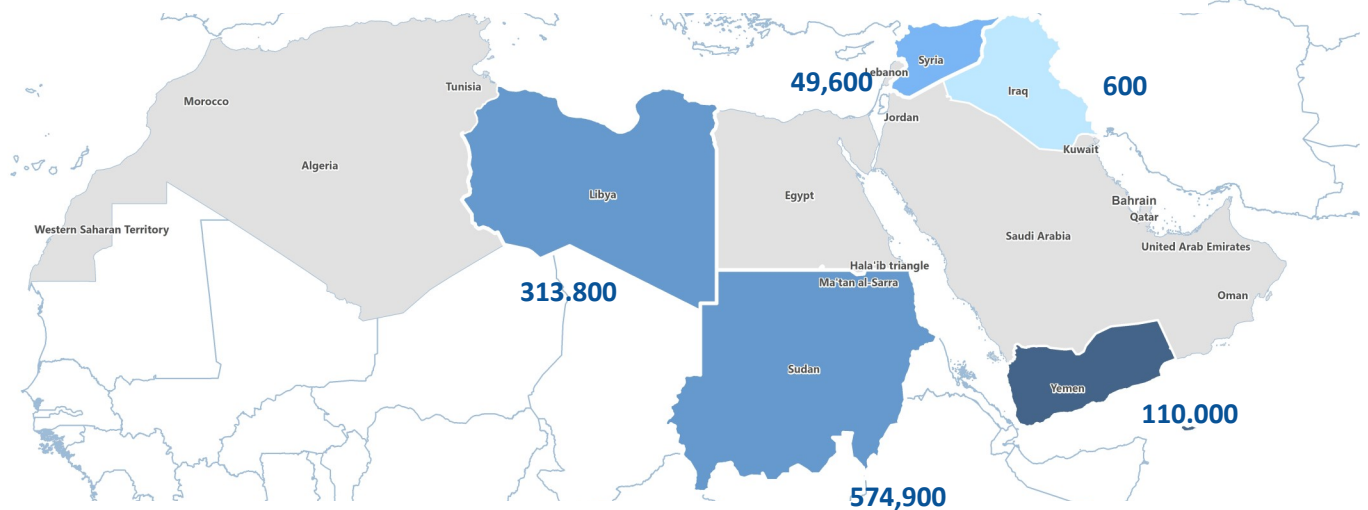
As women and girls are often responsible for procuring and collecting water, issues regarding shifts in gender norms and Gender Based Violence (GBV) become more pertinent during the onset of a crisis due to shifts in a community's pre-crisis practices. These concerns often remain prevalent in protracted crisis, a phenomenon that is common throughout the MENA region. Therefore, IOM ensures that its WASH facilities and interventions are well-designed to reduce the risks of GBV incidents. In addition, IOM ensures that GBV prevention and gender considerations are mainstreamed into all phases of programming, taking into consideration gender dynamics in the social and cultural contexts.²²

20. The Sphere Project was launched to develop a set of minimum standards in core areas of humanitarian assistance. For more information please check [here](#)

21. For more information regarding IOMs WASH assistance in emergency settings, please click [here](#)

22. For more information regarding regional efforts on the emerging water security gender nexus in the Arab region in the context of current geopolitical considerations, please check link [here](#).

Estimated number of beneficiaries of IOM WASH operations in MENA region in 2017



This map is for illustration purposes only. Names and boundaries on this map do not imply official endorsement or acceptance by IOM.

Through its **Displacement Tracking Matrix (DTM)**, IOM is currently capturing natural disaster induced displacement in Yemen and Iraq and is looking into ways to expand this within the region.²³ In terms of its work in Iraq, IOM has been using its DTM since February 2018 to track internal displacement due to water shortages mainly affecting the central and southern regions of Iraq.

In the context of early recovery and transition, IOM's activities focus on addressing medium- to longer-term needs, such as setting up water resource management systems and rehabilitating water infrastructure. To contribute to ownership, sustainability and empowerment, IOM works closely with relevant Government counterparts and communities. For example, IOM is working with the local ministry of water resources in the south of Libya to support the provision of WASH services through the rehabilitation of water wells and provision of (waste) water pumps. IOM is also establishing water tariff systems in Sudan in a participatory and inclusive manner.

Another example includes the manner in which IOM in Iraq and its partners focus on the rehabilitation of water treatment plants in the southern governorates.

It must be noted that addressing water scarcity and promoting integrated water resource management can provide an important opportunity for cooperation between different, and often contentious, groups, a central element of IOM's Community Stabilization approach. For example, when local parties agree to allow water treatment that will benefit the communities in their entirety, this can serve as a step towards social cohesion at the community level. In the south of Libya, community representatives from different backgrounds convened in Community Management Committees that IOM helped enable, where they highlighted the lack of functioning wells as one of the major challenges the communities face. IOM then helped address the concerns of the Committee by rehabilitating water wells in various neighborhoods in Sabha and Qatroun.



IOM support to the rehabilitation of an irrigation system south of Mosul, Iraq. © IOM 2017/by Sandra Black-edited by Raber Aziz

23. Outside the MENA region, IOM through its DTM is also working on drought related displacement in Madagascar, Somalia, and Ethiopia, amongst others. IOM currently has DTM operations in MENA region in Libya, Iraq, Yemen and Sudan. For more information regarding DTM, please click [here](#)

IOMs commitments to the Sendai Framework and the Global Compact on Safe, Orderly and Regular Migration (GCM) constitutes an important opportunity to address human mobility linked to water scarcity, through the development of adaptation and resilience strategies. Therefore, IOM will continue its efforts in the region to promote community-based ecosystem management as a way to strengthen livelihoods while reducing disaster risks, so as to contribute to preventing displacement, support sustainable development and climate change adaptation. As stated in its recent publication regarding Migration and Water²⁴ and the Organization's recommendations to the High-Level Panel on Water and Peace,

Key Recommendations

IOM believes that well-managed and proactive migration governance benefits all and can contribute significantly to development and environmental preservation and restoration. With timely and well-designed migration policy responses, migration can have positive effects by removing pressures from local environmental and resource coping capacities and promoting adaptation strategies, as well as through channeling migrant remittances into sustainable investment. To address water scarcity related to migration factors, IOM recommends the following:

- Consider the full spectrum of human mobility in the context of water governance and establish policy responses accordingly to address different migration dynamics;
- Carry out policy interventions across the whole migration cycle to allow people to stay, help them to

- move and to assist when they are on the move;
- Consider the cross-directional relationship between migration and water, namely how environmental migration might be driven by water insecurity, and how pressure on water resources might be intensifying due to migration inflows;
- Consider the link of the water-migration nexus with development in order to promote innovative and sustainable development models, especially in rural areas and agriculture;
- Integrate migration into water governance frameworks and, reciprocally, water management issues in migration governance framework;
- Prevent forced forms of migration and mobility by identifying water insecurity hotspots, by proactively enacting community stabilization programmes in target areas, or by establishing seasonal migration frameworks to reduce pressures on water resources;
- Apply the human rights framework for water governance and operationalize migration management to ensure water security for all;
- Prioritize funding for direct implementing agencies who are better equipped for response and for the creation of regional hubs for the preposition of WASH emergency materials;
- Integrate water infrastructure support and management into crisis response programming to more effectively address the root causes of crises, in line with wider efforts to strengthen the humanitarian-development nexus ; and
- Mainstream gender into water-related policies and intervention, to guarantee equal access to resources for all and prevent GBV incidents.

IMPORTANT LINKS

- IOM: Environmental Migration Portal - Migration and Water
- IOM Emergency Manual for WASH
- Water and Migration: How Far Would You Go For Water?
- Arab Regional Water Strategy 2010-2030
- The Arab Strategy for Water Security in the Arab Region- Meeting the Future Challenges and Needs of Sustainable Development
- FAO: Regional Water Scarcity Initiative in the Near East and North Africa
- FAO: Water stress and human migration: a global, georeferenced review of empirical research
- ESCWA: A Conceptual Framework for Understanding Water Security in the Arab Region
- CEDARE: Water Conflicts and Conflict Management Mechanisms in the MENA Region
- UNESCO: Migration and its interdependencies with water scarcity, gender and youth employment

24. Eva Mach /IOM , 2017