

HUMAN MOBILITY AND WATER IN THE CONTEXT OF CLIMATE CHANGE, DISASTERS AND ENVIRONMENTAL DEGRADATION

Water is both a resource and a threat and will continue to increasingly impact millions of people if no action is taken. As per [Sustainable Development Goal 6](#) (SDG 6), access to safe water, sanitation and hygiene is among the most basic human needs for health and well-being for all people, including migrants and displaced persons. People on the move find themselves at the heart of the water and sanitation crisis, exacerbated by climate change. At the same time, disasters, climate change and environmental degradation are reshaping patterns of water availability and human mobility. Conflict over water resources or exacerbated by shrinking water resources also impacts these patterns.

Water-related environmental hazards, including floods and droughts, are major global drivers of involuntary human mobility. In the past decade, floods caused over 100 million internal displacements worldwide, accounting for almost half of all weather-related displacements. On the other hand, droughts also drive significant mobility, accounting for 2.6 million internal displacements worldwide over the past decade. Looking at slow-onset climate change impacts on water availability and crop productivity, plus sea-level rise, the number of internal climate migrants worldwide is expected to reach 216 million people in the worst-case scenario if no climate action and inclusive development are implemented.

Two billion people currently live without access to safe water and approximately half of the world's population experiences severe water scarcity for at least some part of the year due to climatic and non-climatic drivers. Environmental changes exacerbate pre-existing vulnerabilities of migrants, including displaced communities, who often rely on natural resources for livelihood activities and have limited access to basic services such as water and sanitation to sustain well-being, health and dignity. Migrants are also some of the most vulnerable groups to extreme weather events, given that they often rely on less durable infrastructure and are exposed to frequent disruptions to critical services, such as health and agriculture, which further undermine humanitarian efforts to reach sustainable solutions.

Ensuring access to clean water and sanitation for migrants is critical to achieving SDG 6. This is especially important for women and girls who require effective menstrual hygiene management to maintain their safety and dignity. These factors make migrants some of the most vulnerable and marginalized populations at high risk of being left behind. Effective management of human mobility, including addressing root causes of migration, is therefore essential to fulfill the human right to water and sanitation for all.



La Savane Désolée, Haiti © IOM 2016/Alessandro Gra Ssani



100 MILLION internal displacement worldwide induced by floods from 2010 to 2020 (IDMC).



216 MILLION people maybe forced to move by 2050, if no decisive climate action is taken, with such up to **80% of these movements could be prevented**. These movements will be in their majority within country borders in the form of migration or displacement (WorldBank/Groundswell).



260 MILLION people live in areas less than 2 meters above sea level, especially in rapidly-urbanizing cities, deltas and SIDS (IPCC).



Around **4 BILLION** people are estimated to experience severe water scarcity for at least one month per year due to climatic and non-climatic factors (IPCC).

IOM VISION

In this context, and building on IOM's leading role as the UN Migration Agency, on [IOM Institutional Strategy on Migration, Environment and Climate Change 2021-2030](#), and on its broad and prominent experience in WASH interventions across contexts spanning the Humanitarian, Development, and Peace dimensions, IOM commits to further advancing the role that integrated human mobility solutions can play in addressing water-related issues, and the role that integrated resources management can play for human mobility, as a central element to protect populations' human rights and promote resilient, cohesive and peaceful societies.

IOM provides solutions:

- » **For people to make informed decisions to remain in situ** when possible and preferred by local communities through innovative, sustainable and cooperative water resources management, but also through adaptation solutions, including water-related disaster risk management with preventive measures, anticipatory actions, and early warning systems accessible to all.
- » **For people on the move**, responding to the impacts of water extremes on displaced populations, including through WASH assistance, while ensuring that sustainable water management is a priority when finding durable solutions to displacement.
- » **For people to move**, where migration is an adaptation strategy and a response to losses and damages related to water resources, with specific attention to the context of water issues in the rural world.

Better coordination and enhanced policy coherence are key to achieve effective solutions for people and communities. The holistic and integrated approach that IOM promotes to address human mobility and water extremes in the context of climate change, disasters and environmental degradation, aligns with the recommendations on human mobility in the 2023 [Praia Call for Action](#) and 2022 [Dakar Declaration](#). It also follows IOM's long-term engagement in workstreams of the UN-Water, in the development of the World Water Development Report, in the Water Scarcity in Agriculture (WASAG)'s Migration Working Group, in the World Water Forum, in the Dushanbe Water Process and at UNFCCC COPs.

IOM simultaneously aims to strengthen through its WASH intervention the collaboration, coherence and complementarity across humanitarian, development and peacebuilding actions within IOM and with its partners, ensuring comprehensive, people-centered approaches supporting progress toward durable solutions. IOM promotes and works ensuring equitable access to environmentally sustainable and climate-resilient WASH infrastructure and services tailored to local needs and contexts, including by engaging in relevant thematic policy processes to address the linkages between human mobility and water scarcity, as recommended by the Praia Call for Action; and by empowering local governments to include migrants and displaced persons alongside host communities in decision-making on the governance of water-related issues.

MAIN HAZARDS



Hazards associated with extreme rainfall and tropical storms, with increasing intensity in climate change scenarios, especially in coastal cities and settlements



Increased and more frequent temperature extremes, rainfall variability and drought



Sea level rise, coastal erosion and water logging are critical concerns in coastal urban areas

MAIN CLIMATE IMPACTS



Destruction of infrastructure, housing and economic damages



Food and water insecurity with losses and damages related to agriculture/crop production



Water scarcity and saline intrusion issues affecting large urban areas, losses of ancestral practices and cultural heritage

Displacement associated with extreme weather events

Rural-to-urban mobility increasingly driven by climate hazards

Increased need for planned relocation in areas regularly affected by disasters, creating a sense of discomfort, loss of sense of place and anxiety

IOM ENGAGEMENT

Through the Humanitarian-Development-Peace Nexus approach, IOM programming on human mobility and water expands from infrastructure projects developing integrated water resources management to community stabilization in the context of impacted water resources and protection of displaced persons from disasters related to water extremes. IOM is also one of the largest recipients of emergency WASH funding worldwide, according to the Financial Tracking Service of OCHA, with a budget between 110 to 120 million in 2022 for delivering WASH programs implemented in approximately 60 countries. **By 2025, IOM will reach at least 25 million conflict and disaster-affected people with life-saving WASH services** to ensure the human right to drinking water and sanitation for displaced populations and their host communities and contribute to the achievement of SDG 6 in crisis and displacement settings.

CASE STUDY 1

Transforming Life-saving Infrastructures and Services into Durable WASH Solutions in South Sudan

In South Sudan, IOM is taking action to address the water and sanitation crisis by focusing its efforts on the continuous provision of life-saving infrastructure and services for the most vulnerable people who continue to be affected by conflict and floods. Since 2013, IOM has been the main WASH actor in the country's two largest camps for internally displaced people (IDP): Bentiu and Malakal. As such, IOM

supplies safe and dignified access to both water supplies (around 120,000 individuals) and sanitation, including the collection, disposal and treatment of fecal matter (200,000 IDPs) in the two camps.

IOM is also accelerating further change and catalyzing appropriate and cost-action in Bentiu and Malakal by leading the transition from strict emergency response to durable infrastructure and services that integrate the humanitarian and development needs of the displaced individuals and host community. One of the core axes of IOM engagement is the effective integration and capacitation of public authorities. For example, IOM supports public authorities in the construction, rehabilitation, operation and maintenance of high-impact water and sanitation infrastructure by providing high-quality materials, joint implementation of infrastructure designs and physical assessments that ensure the adequate use of natural resources and minimize any environmental impact. This strategy lies in the firm belief that by empowering, capacitating and encouraging public authorities to provide water and sanitation infrastructure and services effectively, change will not only be accelerated in Bentiu and Malakal but replicated elsewhere in South Sudan.



Kapoeta, South Sudan © IOM 2018/Ashley McLaughlin

CASE STUDY 2

Reducing Climate-induced Displacement through Infrastructure and Innovations for Water Capture in the Agro-pastoral Sector in Somalia

In Somalia, competition over access to land and water is the structural driver of most violent conflict. Climate change and environmental degradation further reduce scarce water resources, forcing communities to migrate and confront one another for control over diminishing ecological yields. Through multi-sectoral and cross-expertise collaboration, IOM, UNEP and SIPRI are implementing and advancing policy to reduce environmentally induced displacement and conflict in target locations in Galmudug State through tangible investments in physical water infrastructure and pragmatic innovations for water and energy capture in the agropastoral sector, bolstered by sustained dialogue and enhanced natural resource management.

In one of the target locations called Bilil, IDPs that hail from this location and who are currently residing in IDP camps displaced by drought and lack of services started to return to Bilil upon hearing about the planned support of integrated packages. The package consists of construction of a solar-powered borehole, agro-pastoral livelihood opportunities for women, and infrastructure support - currently being discussed with communities - potentially dedicated to enhance the value chain of goat rearing and milk production.

In addition, new small-scale businesses have been popping up in the location, which also signals a rejuvenation of economic activity.



Somalia © IOM 2020

CASE STUDY 3

Integrating Rural Development for IDP Communities Through Water Supply System Revitalization in Azerbaijan



Azerbaijan © IOM 2010/Mila Teshaieva

In Azerbaijan, water plays a crucial role in agricultural production, and its shortage negatively affects livelihoods of the rural population in a

context where climate change exacerbates this vulnerability. With 40% of the total population engaged in the agricultural sector, lack of water becomes not only a hygienic problem but also a factor hindering the well-being of individual households, communities and the development of the country. IOM provided safe and consistent water supplies for people in the region by renovating kahrizes (traditional, sustainable water supply systems). To date, 21 kahrizes have been renovated and aim to provide drinking water to villages with a population of up to 4,000 people.

IOM contributes to the prevention of forced economic migration by enhancing rural communities' access to energy-free water resources to increase agriculture productivity and livelihoods through the provision of water infrastructure and by providing opportunities for income-generating activities in link with the Kahriz renovation. The project continues implementing a community-driven approach, paying specific attention to cross-cutting issues such as gender, governance, and environmental sustainability.

CASE STUDY 4

Delivering Comprehensive WASH Support in Yemen

Before the war, Yemen was considered a water-scarce country. After seven years of conflict, the situation has worsened. The destruction of water systems, fuel shortages and lack of maintenance have affected 40% of the country's hydraulic assets. In response to severe water scarcity during 2020 and 2021, IOM carried out the construction and rehabilitation of groundwater extraction systems that have benefited more than 350,000 people affected by the conflict. Most of these projects have included implementing pumping systems powered by solar energy to provide reliable and affordable access to clean water for communities affected by the ongoing humanitarian crisis in areas where fuel and electricity supply is either nonexistent, erratic, or too expensive.

A central point of the IOM WASH strategy in Yemen is to consider and minimize all potential environmental impacts of the interventions carried out. In this sense, IOM provided technical training to beneficiaries to give them the capacity to responsibly self-manage water production systems, as well as training WASH actors through the IOM's lead Global Solar and Water Initiative project. Similarly,

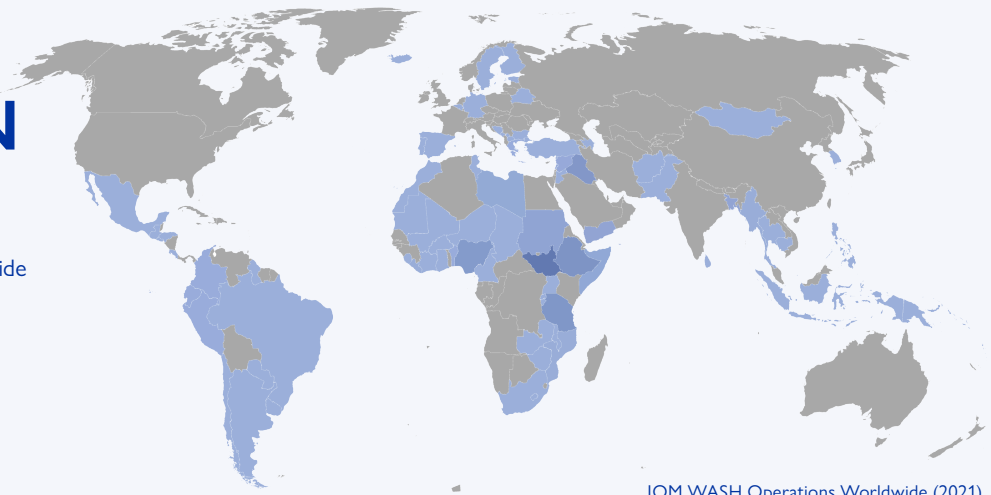
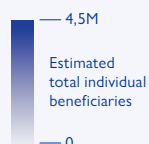
IOM has worked with specialized groundwater partners to improve the management of the water systems through the implementation of remote monitoring systems of groundwater abstraction and to enhance the administration, operation and maintenance of systems.



Lahj, Yemen © IOM 2018

In 2021, IOM delivered
WASH services to over
13 MILLION
individuals in 62 countries

IOM is among the 3 largest recipients
of emergency WASH funding worldwide
(OCHA/Financial Tracking Service)



IOM WASH Operations Worldwide (2021)

This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration