



# Water Scarcity



## FOCUS COUNTRIES

Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Oman, Tunisia, United Arab Emirates, Yemen and West Bank & Gaza Strip.

## OVERALL GOAL

Support countries in coping with one of their prime challenges: pursuing food and water securities for sustainable social and economic development amid an unprecedented severe escalation of water scarcity.

adopt good agricultural practices. This is to ensure alignment with the imperatives of (i) setting the sustainable limits of water consumption and (ii) making the best use of water, including the use of non-conventional water sources.

## ABOUT THE REGIONAL INITIATIVE

The Near East and North Africa (NENA) region has the lowest per-capita fresh-water resource availability of any region in the world. In the last 40 years, available fresh water has decreased by two-thirds. By 2050, it is expected to decline a further 50 percent due to rising populations, food security policies, socio-economic development, and climate change. Irrigated agriculture consumes over 85 percent of the region's available fresh-water resources, meaning it will face strong competition from other water users and that it must become more efficient with its water usage, while contributing to food security and to the rural economy.

The Water Scarcity Regional Initiative (WSI) supports the NENA region countries to strategically plan their water resource management and allocation, review their water, food security and energy policies, formulate effective investment plans, modernize governance and institutions, account for transboundary surface and ground water and

Major focus areas of the initiative include: (i) adopting global standards for water-accounting systems; (ii) expanding the knowledge base for irrigation efficiency and water productivity; (iii) improving groundwater governance; (iv) using nonconventional water; (v) adapting for climate change; (vi) managing drought; and (vii) implementing scenario analysis, including the water-food-energy nexus approach, to identify safe operational boundaries for water consumption within which achieving SDGs targets.

## CONNECTING TO THE SDGs

The regional initiative contributes to the following Sustainable Development Goals (SDGs):



## MAKING A DIFFERENCE

The WSI leverages distinct mechanisms to provide innovation and research for a higher impact in delivering results:

- > **Regional Collaborative Strategy:** Established among NENA countries to systematically identify knowledge gaps and unsettled issues with agricultural water and to assess the need for strengthening cooperation at the regional level. The strategy is operationalized through a Regional Collaborative Platform.
- > **Strategic Partnership:** More than 20 partners at regional and international levels are participating in the WSI work plan, following the principle of best comparative advantage and more-value-for-money. These also include financial resource partners and the private sector. The results-based partnerships have been established to generate a critical mass of capacities and resources for 'impact-at-scale'.
- > **Advanced Knowledge:** Efforts are oriented towards empowering countries with world-standard tools, data and methods to develop a knowledge base (evidence) on water-resource accounting, management and governance. Advances in space technology through satellite remote sensing and the latest smart information and communication technologies are applied. Countries' capacity is built to apply the tools, data and methods to use the knowledge base and to analyze real cases and scenarios towards water sustainability.
- > **Operative Learning:** Implemented through an exchange of solutions between country 'practitioners' (e.g. farmers-to-farmers, professionals-to-professionals and decision-makers-to-decision-makers), and enabled through the Regional Collaborative Platform.
- > **Women:** The WSI pays particular attention to the role of women in the decisions and management of water in agriculture.
- > **Financial Resources:** Substantial amounts of money have been mobilized in support of the WSI to accelerate results, thereby maintaining maximum alignment between Sustainable Development Goals and regional and country priorities.
- > **Political Momentum:** Ultimately, the WSI works towards generating the political momentum for an inclusive water-reform agenda in the region. In fact, the WSI has been endorsed by the Water Ministerial Council of the League of Arab States as a mechanism to support the Arab Water Security Strategy 2030.



### YEMEN

Fresh water availability is threatened by climate change, especially recurrent and prolonged droughts.

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## IN PRACTICE

Examples of current activities:

1. Establishing integrated agriculture-aquaculture pilot-farms in Algeria, Egypt and Oman.
2. Establishing community-farm demonstration fields to show the benefits of new irrigation technology and promote out-scaling with Egypt's wheat, in partnership with the International Center for Agricultural Research in the Dry Areas (ICARDA).
3. Completing a diagnostic assessment of groundwater governance on aquifers in Jordan, Morocco and Tunisia, covering watersheds of several hundred square kilometers.
4. Installing the first solar-energy water-pumping station serving 230 fedans in Egypt's Nile Delta to cope with energy cuts and water scarcity, with trainings delivered and more stations planned.
5. Implementing a plan to envision future climate-change scenarios in Egypt, Jordan and Lebanon and for 'hotspots' at the regional level in partnership with the United Nations Economic and Social Commission for Western Asia (ESCWA), GIZ and the Arab Centre for the Studies of Arid Zones and Dry Lands (ACSAD).
6. Selecting drought-monitoring indices for Jordan, Lebanon, Morocco and Tunisia, in partnership with ICBA, Nebraska National Mitigation Center and USAID.
7. Empowering 'Water Accounting' units within ministries of water resources with advanced space technology.
8. Sharing country experience through multi-disciplinary teams participating in the Regional Collaborative Platform.

### Contact

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### More information

<http://www.fao.org/neareast/perspectives/water-scarcity/en/>