



# Coping with water scarcity in the Near East and North Africa

The Near East and North Africa Region (NENA)<sup>1</sup> may be facing the most severe intensification of water scarcity in history. Agriculture, which uses over 85 percent of the total freshwater, will most likely absorb the bulk of this shock. This shortage will have major implications for food security and the rural economy of the region.

NENA countries need to strategically plan their water resources allocation as making the best use of every single drop of water has become an imperative.

## KEY FACTS

The NENA **Internal Renewable Water Resources (IRWR)**<sup>2</sup> per capita are among the lowest in the world and are expected to fall over 50 percent by 2050.

**NENA IRWR**  
609 m<sup>3</sup> per capita per year (2012)

**WORLD IRWR**  
6080 m<sup>3</sup> per capita per year (2012)



70 percent of NENA total area exists under desert and arid conditions.

### At the same time...

- agriculture in NENA uses approximately 85 percent of the total available freshwater in the region;
- over 60 percent of water resources in the region flows from outside national and regional boundaries.

*Water is the binding constraint for agriculture in the NENA countries*



## Water and food security in NENA

The NENA region is one of the most water scarce areas in the world. Per capita fresh water availability, which is 10 percent of the world average, has decreased by 2/3 during the last 40 years and is projected to decrease by 50 percent in the next 35 years if the current trends in population growth and consumption patterns continue at the same pace.

Groundwater, which has become a significant source of water across the region, and which is the basis for the rapid growth of new agricultural economies in the Arabian Peninsula, is now also experiencing significant depletion.

The considerable degradation of water quality is accelerating, along with competition for water between all sectors.

The cause of higher temperatures, droughts, floods and soil degradation, climate change will impose a further threat to the region's water resources and food security. The decrease in production that this situation is likely to cause, could contribute to increasing NENA's current dependence on cereal imports.

**Water is the binding constraint for food production in all NENA countries and remains a core issue that can no longer be tackled through a narrow sectoral approach.**

A sustainable vision is needed for the way water is used. Efficient water allocation among sectors and productive use of the water allocated to agriculture are essential and strategic steps to prompt a shift in the way this resource is managed in the region.



<sup>1</sup> Algeria, Bahrain, Egypt, the Islam Rep. of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen.

<sup>2</sup> Internal Renewable Water Resources (IRWR) are defined as the average annual flow of rivers and recharge of groundwater (aquifers) generated from precipitation occurring within a country's borders.



■ **A regional approach for water management**

Water is a shared resource that crosses political and geographic boundaries; cooperation among countries is key to its sustainable use and management.

FAO has launched a **Regional Initiative on Water Scarcity in the Near East and North Africa (WSI)** to support countries in streamlining policies, governance and practices related to the management of this strategic resource.

Under the Water Scarcity Initiative, NENA countries are developing a **collaborative strategy on sustainable agriculture water management** to be implemented through the support of a **regional partnership** among stakeholders that are part of the Initiative.

The collaborative process launched by the Initiative is the first of its kind in the region, as it leverages both the diversity of NENA countries and the complexity of the water management field to seek participatory solutions, to understand the challenges and potentialities as well as to provide mutual learning opportunities.

**THE ROLE OF AGRICULTURE IN NENA ECONOMIES**

Region-wide, the **agricultural sector remains key to primary production contributing an average of 13 percent to regional GDP**, ranging, with the exception of some Gulf countries, from 2 percent in Jordan to more than 20 percent in Sudan and Syria.

The sector provides jobs and incomes for 38 percent of the region's economically active population.

Food exports make a considerable contribution to the economy of many NENA countries and help to pay for food imports.



■ **The way forward**

NENA countries have contributed considerable investments to improve water management and have progressed on many fronts. Nevertheless they recognize that water scarcity will likely escalate: available water resources must be managed more efficiently and sustainably than ever before.

This requires a comprehensive reform that promotes, at the first place, an innovative approach in the way water resources are allocated, governed, managed and conserved.

Among the most important measures to be taken it is necessary to:

- Create a broad consensus on the water reform agenda among all involved stakeholders.
- Acknowledge farmers' role in prompting a shift in the way water resources are used and managed.
- Involve the private sector as the actual manager of the food value chain and the supplier of the latest available technologies.
- Establish partnerships that are action-oriented and result-based.
- Develop tools to concretely measure results and collect evidence to support policy making and decision making processes.

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