

Across the Middle East and North Africa (MENA), droughts disrupt communities, livelihoods, water and food systems, the economy and environment. Though reflecting the natural variability of climate and water cycles, droughts are predicted to become more frequent and widespread in the coming decades. Hence the need for countries of MENA to enhance current approaches for managing droughts. While droughts cannot be prevented, pro-active risk management can help reduce their impacts and build resilience among those affected.

The MENAdrought project, led by the International Water Management Institute (IWMI), brings findings from international experience to Morocco, Jordan and Lebanon, with the aim of strengthening their capabilities to manage drought risk. For this purpose, the project relies on the three-pillars approach of the Integrated Drought Management Program (http://www.droughtmanagement.info/).



PROJECT: MENAdrought

DONOR: US Agency for International Development

(USAID), Middle East Bureau

PARTNERS: IWMI, University of Nebraska's National

Drought Mitigation Centre and Daugherty Water for Food Institute, NASA Goddard Space Flight Center, Johns Hopkins University and national partners, including ministries, government agencies, research

centers and civil society groups

PARTICIPATING COUNTRIES:

Morocco, Jordan and Lebanon



At the heart of the work of the MENAdrought project is its focus on strengthening in-country capacity and locally led development to create an enabling environment for improved drought management and to catalyze sustainable, enterprise-driven enhancement of drought resilience. The project's expected outcomes are as follows:

- Enhanced in-country capacity to develop and use drought monitoring/early warning systems
- Improved leadership, risk planning and drought management in MENA governments, based on informed analysis and participatory planning
- Strengthened capacity among water and agricultural managers to provide drought-affected communities with guidance and training in resilient agricultural practices
- Enhanced awareness and capacity at the national and regional levels to manage drought impacts through proactive planning and effective implementation of resilient management technologies and practices

In the medium and longer term, the project is expected to have the following impacts:

- Improved water and food security together with drought resilience in vulnerable communities (and even at the national level) as well as reduced economic losses from drought
- More stable rural livelihoods and reduced displacement of individuals living in rural or agriculturally dependent communities during drought episodes



## **MENAdrought**

Morocco | Jordan | Lebanon



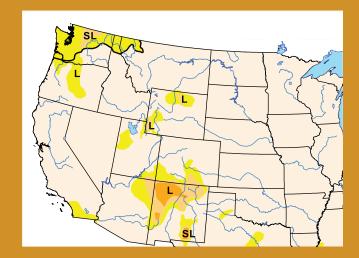








## MONITORING EARLY WARNING SYSTEMS



In each of the three project countries, drought is unique and complex. In many areas, drought impacts on water resource systems need to be represented explicitly in both rainfed and irrigated agricultural systems. The project will capture these impacts through the development of a Hydro-Composite Drought Index. It will also focus on the development of early warning systems that raise awareness of likely drought conditions over the next 1-3 months among water, weather and agriculture managers, so they can take actions to help curb some of the impacts.



## VULNERABILITY AND IMPACT ASSESSMENTS



If those actions are to be targeted and effective, it is important to know which communities, economic sectors and environments are most impacted by droughts and why they are particularly vulnerable. Phase 1 carried out assessments of impact and vulnerability. Phase 2 will examine the economic and social costs. This information is an important part of drought analyses, which are used to help orient investments in institutions, infrastructure and information systems needed for enhanced drought management.



## MITIGATION, RESPONSE AND PREPAREDNESS



Pillar 3 encompasses a new area of work under the drought project. Its key focus is on developing water and agricultural technology packages that can help build resilience in two areas that are most impacted by droughts. To enhance preparedness, the project team is working closely with multi-ministerial inter-disciplinary teams at various levels from technical drought monitoring to policy and management planning. This involves many working sessions and "writeshops" that bring together ideas, experiences, and insights from many different stakeholders to define the plans, decrees, policies, actions, roles and responsibilities needed for drought response.