

# Global Drought Assessment Workshop

## *Towards a Global Drought Early Warning System – What Can We Accomplish Now?*

Drought is a complex phenomenon which operates on many time scales and impacts many sectors of the economy and of society. Drought monitoring, assessment, response, mitigation, adaptation, and early warning systems have been created in a number of countries around the world, and some regional and continental efforts have been successful, but a Global Drought Early Warning System (GDEWS) remains elusive. The creation of a GDEWS faces hurdles, including technical, data, observation network, communications, administrative, and political issues across international borders. These would all have to be overcome, or at least addressed, before real progress can be made on a GDEWS. What works in one region, such as the North American Drought Monitor, may not work in another region in the same form. International Drought Monitors on other continents, if they are to be successful, must address the needs, and function within the resources, of the countries on each continent.

The creation of a Clearinghouse for international drought information and services is one small step in building a GDEWS, but it is the piece that should prove to be easiest to construct. The National Integrated Drought Information System (NIDIS) has been created to address drought services and early warning in the United States. The NIDIS US drought portal (USDP) is a web services infrastructure which serves as a drought information and services clearinghouse for the United States. Its robust services could serve as the foundation for a broader international drought Clearinghouse, but there may be other, better options. The Clearinghouse would serve as a focus for international collaboration, addressing such matters as what is a drought and which indices best monitor drought. Voluntary contributions – of drought status, response, and forecasts from the nations and regions of the world – to the Clearinghouse would paint an integrated, global picture of drought, a first step in moving toward a GDEWS.

In December 2009, the World Meteorological Organization (WMO) announced the consensus agreement among international drought experts that the Standardized Precipitation Index (SPI) should be used to characterize meteorological droughts by all National Meteorological and Hydrological Services around the world and that a similar, comprehensive review of agricultural and hydrological droughts should be undertaken in order to develop common indices for better early warnings in the agricultural and water sectors.

The April 2010 Global Drought Assessment Workshop will draw international drought experts from around the world to Asheville, North Carolina, USA, to discuss existing national and regional drought activities and to review previous efforts to monitor drought on a global scale. By examining what has been tried, what hasn't worked, and what is working now, a clearer picture will emerge of the next steps which can be taken towards creating a GDEWS. Workshop goals include:

1. The creation of a Clearinghouse for international drought information and services.
2. Develop recommendations to the WMO of specific characteristics of the SPI (such as standardizing base period, time scales, and probability distribution functions to use) that should be adopted by the National Meteorological and Hydrological Services around the world, as well as where this information should be integrated and hosted.
3. Provide a venue for progress on the WMO goal of identifying common indices to use for agricultural and hydrological droughts.