



EXPERTS RECOMMEND WAYS OF COPING WITH INCREASING DROUGHTS

Geneva/Beijing, 19 February 2009 (WMO) – International experts gathered in Beijing (China), from 16 to 17 February 2009 to review the increasing frequency and severity of droughts and extreme temperature events around the world. More than 40 scientists from climate and agricultural research institutes, universities and environmental monitoring organizations participated in the International Workshop on Drought and Extreme Temperatures organized jointly by the World Meteorological Organization (WMO) and the China Meteorological Administration (CMA).

Several workshop presentations noted the recent heatwave, long-term drought and wildfires in Australia. The workshop endorsed the Australian Bureau of Meteorology's Drought Statement of 4 February 2009, which stated: "The combination of record heat and widespread drought during the past five to ten years over large parts of southern and eastern Australia is without historical precedent and is, at least partly, a result of climate change."

This increase in Australian droughts could be a temporary climate event lasting 10 to 30 years, as several presentations noted that these events have occurred in the historical climate record elsewhere in the world. But the recent increase of drought and heatwaves in Australia is consistent with the WMO/UNEP Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, which says that the world has been more drought-prone during the past 25 years. Several participants detailed examples of droughts and heatwaves, such as those in Europe in 2003, in southeast Australia in 2009, and currently in northern and central China, which is the worst drought in half a century

Climate projections for the 21st century indicate increased frequency of severe droughts in continental USA and Mexico, the Mediterranean Basin, parts of northern China, across southern Africa and Australia and parts of South America. According to the IPCC, severe heatwaves are expected to increase everywhere, especially in the continental western USA, northern Africa, the Middle East and central Asia, southern Africa and Australia.

The workshop adopted several recommendations to cope with increasing droughts and extreme temperatures on agriculture, rangelands and forestry. One of the main recommendations was to develop a unified and standardized drought index that can be practically applied to a wide-range of agricultural purposes across the world. The workshop strongly recommended that WMO make appropriate arrangements to identify the methods and to marshal resources for the development of standards for agricultural drought indices in a timely manner.

Other recommendations include supporting more proactive drought planning; promoting use of more water efficient coping strategies such as new drought tolerant crop varieties, water harvesting, micro irrigation techniques, and agro forestry; and using groundwater more efficiently for agriculture. Implementing these coping strategies will require better use of weather and climate information and early warning systems to assist in determining where and when to use the strategies.

The workshop also emphasized the need to strengthen national capacities for collecting and processing data and information on natural disasters such as drought; to promote the use of crop insurance products; and to appropriately use crop varieties in consideration of climate variability

and change . It will be increasingly important to take into account the impact of climate change on future drought intensity and duration, especially in countries where drought currently has low impacts, and also to improve the linkage between farmers and agricultural extension services. Finally, the workshop underlined the need to develop precision models of impacts of future climate change on agricultural systems.

These recommendations are based on a thorough review of drought monitoring and assessment in the various parts of the world, as well as the impacts of these and extreme temperatures on agriculture and forestry.

WMO, with CMA and other partners, have been developing tools to monitor and predict the effects of drought and heatwaves on agriculture and forestry. The aim is to increase awareness of the agriculture and forestry communities to these extreme climatic hazards. World Climate Conference-3, which is being held from 31 August to 4 September 2009 in Geneva, Switzerland, will address these needs as well, through several presentations on the connections between climate variability and change and agriculture.

WMO is the United Nations System's authoritative voice on weather, climate and water.

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