

# **DROUGHT MANAGEMENT AND PREPAREDNESS IN THE UNITED STATES: ARE RECENT LESSONS LEARNED TRANSFERABLE TO BRAZIL?**

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## **ABSTRACT**

Drought is a common feature of the climate of the United States and Brazil. Drought in both nations continue to result in significant economic, social, and environmental impacts. For example, the drought of 1988 in the United States resulted in losses estimated at nearly \$40 billion nationwide, and extreme drought in 1996 resulted in impacts of more than \$6 billion in the state of Texas alone. Droughts in the Nordeste during the late 1970s and early 1980s, as well as in the early 1990s resulted in significant social hardships and economic impacts. Lessons learned from these recent droughts in both countries demonstrate the ineffectiveness of existing assessment, response, and coordination efforts at both the federal and state level, the relatively low level of preparedness to deal with this recurrent feature of climate, and the apparent increasing vulnerability to drought in both nations.

The purpose of this presentation is to discuss recent episodes of drought in The United States and the steps being taken to prepare for the recurrence of these events. This presentation will be organized into five sections. First, recent patterns of drought occurrence and impacts in the United States will be illustrated and considered in their historical context. The role of a new climatic index, the Standardized Precipitation Index (SPI) in detecting the 1996 drought will also be discussed. Second, progress in drought planning by state governments will be reviewed, including the characterist of state drought plans. Currently, 28 states in the United States have drought plans in place, and an additional 5 states are in various stages of plan development. Third, drought policy initiatives that emanated from the 1996 drought in the Southwest and Shouthern Great Plains states will be discussed in detail. These initiatives include: (1) a federal/state report to the President identifying long-term mitigation and preparedness measures, including the development of a national drought policy; (2) a report to the President and Congress by the Western Governors' Association recommending the formation of a western drought coordination council to improve drought mitigation and preparedness in the 17 western states; and (3) the introduction to the U.S Congress in the 1997 of the "National Drought Policy Act" for the purpose of creating a comission to develop a policy and plan. Fourth, the role and mission of the National Drought Mitigation Center (NDMC) will be discussed, particularly with regard to these activities. The NDMC, which was formed in 1995, may be a useful model for Brazil to follow in reducing vulnerability to drought. Finally, the transferability of these recent actions to the recurrent problems of drought in Brazil will be discussed, including the important role the meteorological community can play in lessening future impacts to drought. In particular, the development in an integrated climate monitoring system can help detect the emergence of drought and other extreme climatic events and trigger the implementation of appropriate mitigation and response programs.

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