



Drought and Humanity: A National and Global Challenge for Improving the Prediction, Planning, and Management of Water Scarcity

by Stephen G. Wells

What are the problems?

What are the challenges?

Why is the Geological Society of America addressing this issue?

What are the problems?



*1977 Drought & resulting 24-hour desertification event
Southern California, USA*

Prolonged drought episodes have highlighted an increasing vulnerability of all regions in the U.S. to water shortages

*“A nation that destroys its soils, destroys itself.”
– President Franklin D. Roosevelt, Feb. 26, 1937.*



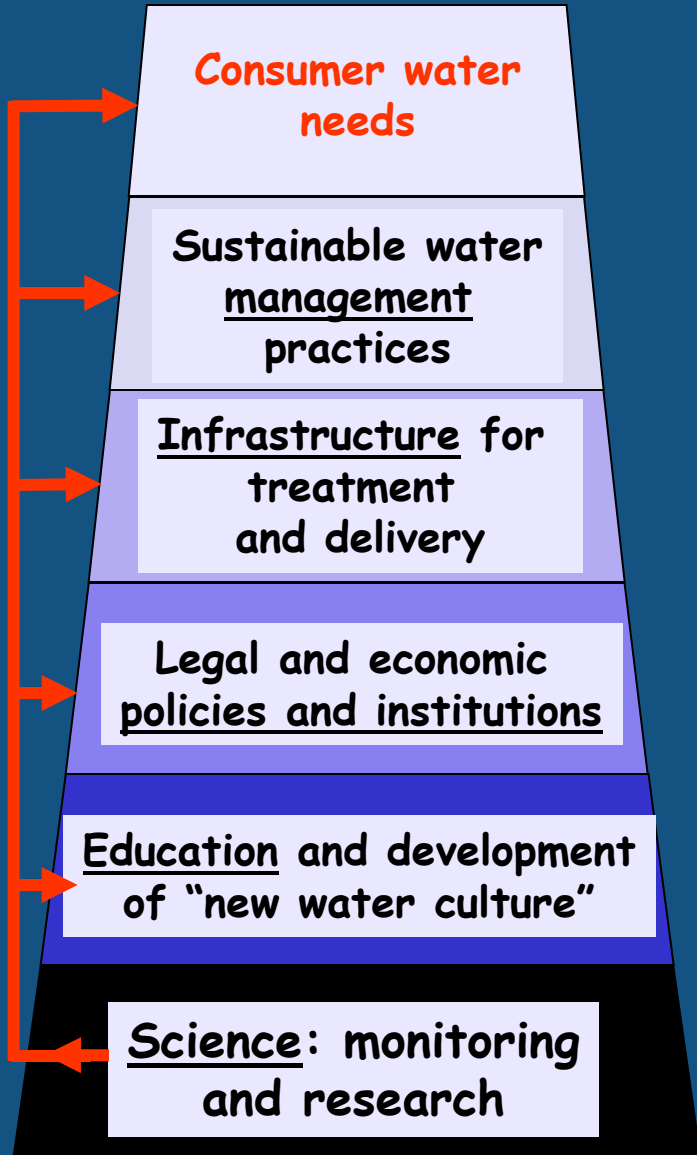
Dust Bowl, USA: National Archives: 114 SC 5089

Drought threatens the livelihoods of one billion people worldwide



Zinder, Niger - 2005

National Water Management Components



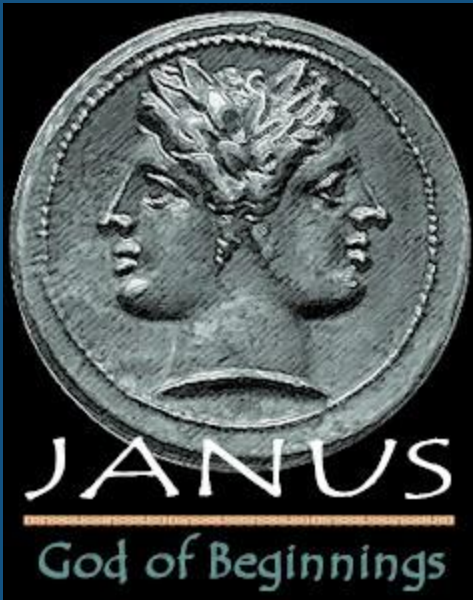
Goal

Who?

Ultimate Goal: Water is available where and when it's needed	All
Flexible and drought-sensitive water management processes	Local State
Adequate treatment, delivery, and storage	Local State Federal
Equitable water rights Realistic pricing Drought mitigation provisions	State Local Federal
Social preparation for changes in availability and cost of water	All
Climate change/variability research & modeling. Monitoring of water and environment	Federal University

Shared vision + Collaborative solutions

What is role of Geological Society of America?



A look to the past:

**Long-term geologic history to improve
predictions, planning, and management.**