



## WATER RESOURCES RESEARCH GRANT PROPOSAL

**Project ID:** 2003AR57B

**Title:** Analysis of Water Conflicts in Pakistan and the Middle East – A Comparative Study

**Project Type:** Research

**Focus Categories:** Law, Institutions, Policy, Water Use, Water Supply

**Keywords:** Transboundary Water Conflicts

**Start Date:** 03/01/2003

**End Date:** 02/28/2004

**Federal Funds:** \$4350.00

**Matching Funds:** \$ 8698.00

**Congressional District:** 3

**Principal Investigators:** Davis, Ralph K (University of Arkansas)

**Abstract:** Extended drought during recent years and shrinking water resources in Pakistan and Middle Eastern countries (Jordan, Israel, Lebanon, Syria and Egypt) indicate that the countries are nearing conditions of chronic water stress. The gap between demand and supply of water across all the countries has increased to levels creating inter-provincial and transboundary conflicts. This may also be true about the water situation in the U.S., especially in the western region where Colorado fights with Kansas over water share in the Arkansas River basin. Conflicts in Arkansas River basin are particularly contentious because of the falling groundwater table and many unresolved tribal water-right disputes. This project examines the water resources situation in Pakistan, India and the Middle East from socio-cultural and political perspective. The purpose of the research is to evaluate alternative policy scenarios, within the design of the local and regional implementation schemes, for resolving inter-provincial and transboundary conflicts. Data on the following aspects shall be acquired from primary and secondary sources to analyze the water situation and the institutions involved in the management of water resources in two regions:

(1) the development of water institutions and their roles in the historical context, (2) the coordination among institutions, (3) the inter-provincial water conflicts, and cultural and religious heterogeneity that complicates the water situation and (4) strategies to resolve the conflicts. Primary data shall consist of

interviews with the key personnel in water related institutions. Secondary data for Pakistan, India and the Middle East will come from several country reports; published papers, water related research reports and most importantly from database called the Transboundary Freshwater Dispute Database (TFDD) summarized by Hamner and Wolf. TFDD contains general findings from comparative assessments of river basin treaties. The collection includes water-related treaties and also 39 U.S. inter-state compacts dating from 1870 to the present. Research will also make use of the water laws and water related legislation of the U.S., especially Water Act 217 passed by the Arkansas Legislature in 1969 to understand the water resources planning, and the mechanisms available at the state level to resolve the interstate conflicts. Based upon the data, scientific and socio-political approaches for simulating alternate policy scenarios will be identified within the design of the local and regional implementation to resolve the future regional conflicts. It is expected that this research will also benefit policy makers of Arkansas and other Western states in efficient and timely planning of water resources to avoid the inter-state conflicts as severe they are in Pakistan and the Middle Eastern countries.

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