

## TR-166

Environmental Issues of the U.S.-Mexico Border Region: A Workshop Summary

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## • Full Text

A July, 1994 workshop was held in College Station to examine information available on environmental issues facing the Rio Grande River basin along the U.S.-Mexico border in Texas. The objectives of the workshop were:

- 1. to identify current university, state, and federal data bases for the region;
- 2. to inventory research and analytical capabilities; and
- 3. to determine future research plans and projects of interest.

This report summarizes the workshop, which was organized and conducted by the Texas Water Resources Institute, a unit of the Texas Agricultural Experiment Station.

Additional development of the border region may result in the degradation of many aspects of the environment and ecosystem. Factors leading to this deterioration might include: population growth and urbanization, industrial growth, shifts in agricultural practices, and international politics. The impact of changes in these factors would be felt in, among other things, water availability, water quality, air quality, land use and management, food safety, coastal resources, and information coordination. Consequences of changes in both physical and social systems could include the degradation of human health, biodiversity, and quality of life. Whether an increase in general economic well-being in the region will come about as the k result of increased trade and development is not yet certain. An economic increase I could help compensate for the loss and damage to natural resources caused by I urbanization and industrialization. On the other hand, a lack of economic improvement or, worse yet, an economic backslide, in conjunction with resource degradation could mean irreversible problems for the region's development, [ economic survival and quality of life.

Border region environmental problems are being addressed by both countries, but they suffer from lack of

communication and coordination; lack of organization in assembling, analyzing, and interpreting existing data; and lack of a well-defined, comprehensive, and coordinated research plan for the region. Part of the mission of the College Station Workshop was to identify and recommend ways to contribute to the resolution of border environmental problems with a binational focus to evaluate the latter. The purpose of this report is to list and discuss each of the major suggestions, which are:

- 1. to develop an organizational structure to improve coordination between U.S. and Mexican agencies;
- 2. to provide incentives to encourage better cooperative research ventures; and
- 3. to name an umbrella coordinating agency for the development, assessment, and distribution of existing data from the region.

This report also presents major components of a strategic research plan for the border region, including the needs and expected research outcomes. Workshop participants identified the following natural resource and environmental problems as having greatest need for research: public health, water quantity and quality, agricultural land use, environmental conservation, ecosystem management, transboundary institutions, and transportation and international commerce. It is likely that collaborative research and planning will be required to provide solutions to these and other problems. Collaborative research activities will likely be shared among U.S. and Mexican universities, and State, Federal, and local agencies.

This report contains abstracts of presentations from the following speakers:

- Economic Impacts of NAFTA in the Border Region: Prospects for Texas Agriculture Parr Rossen, Department of Agricultural Economics, Texas A&M University System, College Station, Texas
- The Demography of the Texas-Mexico Border Region Rogelio Saenz, Department of Rural Sociology, Texas A&M University, College Station, Texas
- The Sustainable Development Initiative for the Rio Grade/Rio Bravo Basin Dan Sisbarro, Center for Global Studies, HARC, Houston, Texas
- The Bureau of Reclamation's Future on the U.S.-Mexico Border Dan Page and Roberta Ries, United States Department of the Interior, Bureau of Reclamation, Rio Grande Project, El Paso, Texas and Denver, Colorado
- Hydrologic Modeling of the Rio Grande Basin C. Alan Jones, Blackland Research Center, Texas Agricultural Experiment Station, Temple, Texas
- Border Programs of the Texas Natural Resources Conservation Commission (TNRCC) Steve Niemeyer, Texas Natural Resources Conservation Commission, Austin, Texas
- The Role of the Frank Hernandez Environmental Laboratory in Support of Environmental Science Programs A.
  Mehdi Ali, Agricultural Research and Extension Center, Texas A&M University, El Paso, Texas
- Senate Bill 503 and 319(h) Activities on the Border Bryan "Bo" Spoonts, Texas State Soil and Water Conservation, Board, Temple, Texas
- Gap Analysis: An Assessment of Biodiversity in Texas Lloyd B. McKinney, Department of Forest Science-Mapping Sciences Division, Texas A&M University, College Station, Texas in cooperation with Nancy Mathews, TX Cooperative Fish and Wildlife Research Unit, National Biological Survey, Texas Tech University and Joy Winckel, Department of Range and Wildlife Management, Texas Tech University
- Overview of Extension Water Quality and Conservation Programs in the Lower Rio Grande Valley Guy Fipps,

- Department of Agricultural Engineering, Texas A&M University, College Station, Texas
- Microbiological Research on Transboundary Water Quality Problems at El Paso Suresh D. Pillai, Texas Agricultural Research and Extension Center, El Paso, Texas
- An Overview of the U.S. Fish and Wildlife Service Land Management Program in the Lower Rio Grande Valley, Texas - Larry R. Ditto, Project Leader, Lower Rio Grande Valley National Wildlife Refuge Complex, McAllen, Texas
- Texas Parks and Wildlife Department Programs to Identify and Minimize Impacts to Natural Resources Along the Texas Mexico Corridor - Texas Parks and Wildlife Department Programs to Identify and Minimize Impacts to Natural Resources Along the Texas-Mexico Border - Ismael "Smiley" Nava, Texas Parks and Wildlife Department, Resource Protection Division

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