

# **THE MEXICO AND U.S. PASO DEL NORTE REGION: CHALLENGES TOWARDS A COMMON FUTURE FOR WATER RESOURCES**

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## **ABSTRACT**

Sustainable development on the Paso del Norte region is based on the security of adequate quantity and quality of water. This region is located at the northwestern Chihuahua, Mexico and southwestern United States transboundary area. Issues related to water resources along this common border are constrained by:

- 1) Physical assessment factors related to the characterization of water resources along these desert ecosystems;
- 2) Diplomatic issues related to the fact that most of the available surface and subsurface water resources are shared in their geospatial distribution;
- 3) Environmental, economic, political, and demographic pressures where industrial, domestic, as well as ecological usages demand their right to a limited resource, and;
- 4) The compliance of decision makers and politicians on both sides of the border to address the challenge and find common solutions to a long term problem of water policy and management.

The purpose of our paper was to address these different topics in order to review different scenarios to maintain a common future of our shared water resources, visualizing the problem from a “no borders” perspective. GIS technologies were used to physically characterize the binational watersheds along this region identifying available water resources at scale 1: 250, 000; international treaties were reviewed to understand the political implications on the different diplomatic issues governing water allocation and management on the border; and the different plans and projects to administrate water resources on both sides of the border were analyzed to compare diverse perspectives and approaches to the common challenge. Transboundary distribution of these watersheds have both surface and subsurface waters available for future sustainable development that require expensive integrated long-term management and water policy plans. Binational groups of experts, academics and policy makers have addressed the problem discussing the possibility of managing water resources in an integrated manner; however, more analysis and negotiations are still waiting on these round tables to accomplish trusted shared common solutions to the water problems on the Paso del Norte region.