

A Transboundary, Socio-Environmental Database for the Rio Grande/Río Bravo Basin

Finding solutions for better managing scarce water resources that meets growing human water needs while sustaining ecosystems, requires data-sharing and integration across several agencies and disciplines. Increasing human population paired with a changing climate poses many challenges and uncertainties for water resource managers. Access to a database with critical information is one potential solution to successful adaptation planning. However, in a transboundary basin, this task is complicated by the disparity of data sources, and inconsistencies in content and languages. For this reason, a research team led by the University of Oklahoma created an open access, spatial database that crosses political and disciplinary boundaries to better understand watershed management and the intertwined social and environmental dynamics throughout the Rio Grande/Río Bravo Basin.

As a collaborative effort between social and environmental scientists and with the help of various agencies and stakeholders, the researchers assembled and thoroughly documented 145 spatial datasets – mainly derived from publicly available data sources – that synthesize information on five main themes:

- 1- Water & Land Governance
- 2- Hydrology
- 3- Water Use & Hydraulic Infrastructures
- 4- Socio-Economics
- 5- Biophysical Environment

This database provides three main contributions. (1) It facilitates the access to and expands the availability of information on social and environmental characteristics of the basin. (2) It maps the geographic boundaries of water resource decision-makers and the spatial heterogeneity of local conditions, which can help stakeholders to better understand different development trends across a region. (3) It highlights data gaps for a truly basin-wide, socio-environmental approach for the Rio Grande/Río Bravo Basin.

To read the full article, click [here](#).

To see a more general overview on how the creation of this database became a reality, checkout the following [blog](#).