

# COOPERATION FOR TRANSBOUNDARY WATERSHED MANAGEMENT: THE MEXICO-U.S. SAN PEDRO RIVER

**José María Martínez Rodríguez<sup>1</sup>**

**José Luís Moreno Vázquez<sup>2</sup>**

<sup>1</sup>*El Colegio de Sonora, Hermosillo, México*

<sup>2</sup>*El Colegio de Sonora, Hermosill, México*

*E- mail: [josemaria@colson.edu.mx](mailto:josemaria@colson.edu.mx)*

Upper San Pedro watershed shared by Mexico and the United States is vibrant region in which a diverse geopolitical problematic converge. Both sides of the border show high urban growth rates<sup>1</sup>, increasing economic activity in both military and mining industries, as well as social conflicts related with migration patterns<sup>2</sup>and increasingly illicit drug trafficking<sup>3</sup>.

At the same time, this is a privileged space of ecological transition, unique in the world, in which two enormous regions, the Artic and the Tropics, share their biological boundaries in a delicate balance<sup>4</sup>.

The importance of the biodiversity of this natural boundary of the planet is just beginning to be appreciated: over 2,000 plant species; 265 bird species; about 75 reptile species; over 90 species of native mammals, fish, insects, mushrooms and lichens, already known and still to be discovered, form part of the vibrant life ties present in this contrasting and complex biotic boundary.

Two of the most emblematic species of temperate and warm regions, the black bear (*Ursus americanus*) and the jaguar (*Pantera onca*), coexist in the area, within a corridor that goes back and forth between the continent's two regions.

Thus, the strategic wealth of this entire region is not represented, as traditionally thought, by the existence of inexhaustible gold and cooper deposits which have made it famous, but rather by the invaluable environmental services it has been providing for thousands of years.

Climate regulation, the generation of rainfalls, oxygen production, biomass creation, soil formation, waste degradation, pollutant absorption, and many other processes that have benefited the

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<sup>1</sup> The rate of population growth in Cananea between 1990-2000 was 1.77 (INEGI, Population Census 2000)

<sup>2</sup> At the Mexican border towns there is a "migration economy", only in the Naco-Douglas corridor 400 people are deported every day (La Jornada 02-24-2008)

<sup>3</sup> According with an Autonomus of Madrid University research (El mapa de la droga en México Author Carlos Resa Nestares) Sonora is the state with the highest number of drug prisoners for each 100,000 inhabitants. The highest level of Cananea's crime saga took place a year ago when a curfew was dictated because the imminent confrontation between Mexican army and drug dealers bands (Dossier 08-16-2007).

<sup>4</sup> Martinez, J.M. Sky Island Revista Sonarida Sonora-Arizona Educational Institute. 2007.

successive (and growing) generations populating this land, have only been possible thanks to the “work” performed by this generous ecosystem which both countries share.

During the last few years, a number of efforts have been conducted in both countries, not only in the institutional framework and social networks, but also on research related with status of natural resources, particularly in the hydrological basin reserves.

Studies on superficial water quality, condition of aquifers, natural resources basin management, biota and wildlife monitoring, social and environmental impact of agrarian reformation<sup>5</sup>, among others, gives us an idea of changing dynamics of Mexican San Pedro Basin.

The results of our research synthesis and academic instruction program at El Colegio de Sonora’s Integrated Basin Management Graduate Program indicate that achieving integrated watershed management requires social actors and decision-makers to negotiate complex synergies. Our research demonstrates the nature of the challenges, obstacles and opportunities for collective action and basic consensus construction among conflict party interests at a regional level.

In the Mexican side, a new initiative of the national federal office for water resources (CNA) emphasizes the San Pedro River watershed as a “prototype,” which opens new expectations for inter-institutional coordination as well as to create new links with US counterparts, in the interest of collaborative efforts among both countries. Mexican basin emblematic projects include three mayor steps: Planning, implementation and evaluation and improving. At this moment, the San Pedro River Basin it’s at the first step, where information systematization, diagnosis, actors’ typology and elaboration of detail action program its taken place.

This study it’s based on academic discussions among professors and graduate students focus on basin management, particularly those who has been working on this area for many years, many of whom, at the same time, as been responsible for official development programs implemented at the San Pedro River area. At the same time we will expose in course research and outreach environmental issues at Ajos-Bavispe National Land Reserve, as well as interviews with key actors in the San Pedro Commission group.

As one of the main objectives of our integrated basin management program, this study will allow us to understand multi-interest water group behavior theory in a more complex level, since the San Pedro basin involves not only current local environmental-socio-economic conflict, but also bi-national and

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<sup>5</sup> A large group of institutions have been involved on these researching efforts: Conabio, Universidad de Sonora, Universidad Autónoma de México, University of Arizona, Udall Center, National Water Commission, Sonora Environmental Institute, Mexican Natural Areas Commission, as well as a number of Mexican and American non goubernalmental organizations (TNC, Sonoran Institute, BIDA, Naturalia, Red Fronteriza, ARASA, etc.).

therefore bicultural components. This is precisely the arena where transboundary watershed approaching may have a significant contribution.

Theme topics:

- International political issues, decision-making and conflict resolution
- Involving stakeholders in transboundary areas
- Institutional and legal issues