

## Summary of Panel 2 by José Luis Castro

The questions for this panel intended to address the main characteristics of these processes in each basin, the events relevant to their historical changes, the role of both governments on this historical evolution, and the areas in need of more attention.

Among the characteristics common to both basins, there is climate and reduced in-stream flow and groundwater activity, and both show pulse flow dominant. The two basins also have deltas which are highly impacted environmentaly. From the policy and institutional perspective, there are differences on points of view between both countries, due to the nature of each political system (polycentric vs. centralized). In addition to this, on the US side there are legal differences between the border states.

The events relevant to the historical changes experienced by the processes analyzed include the development of water infrastructure, both in the US and along the common border. Examples of this are the construction of the Hoover and Glen Canyon dams in the first case, and the All American Canal and the system of dams under the 1944 Treaty (La Amistad and Falcon) in the latter. Other important aspect refers to the legal accords and treaties devised by both countries throughout history, as the Guadalupe Hidalgo Treaty, the 1906 Treaty, the Rio Grande Compact in 1929, the 1944 Treaty, the signing of NAFTA, as well as social processes like the revolutionary period in Mexico. Other processes mentioned include the increasing water demands, the on going drought, the withdrawal and diversions that lead to large consumptive use and alteration of hydrologic processes. Finally, plans and legal events in the US were also cited as relevant to the question posed.

The role of both governments concerning the processes analyzed generated divergent opinions. First, there is recognition of government cooperation to reach agreements (CILA-IBWC, Nadbank-Becc). Also, and despite the existence of different visions and government fragmentation, it is believed that the idea of a system is kept. From the critical side, the opinions point to a lack of emphasis on freshwater infrastructure, and the persistence of drought impacts despite planning actions for that. Also there is the issue of environmental justice. From the US perspective, the role of the Federal Government is emphasized in financially supporting water related agreements; providing technical assistance; infrastructure operation, and providing grants and funding for water improvements.

The question of areas that require more attention drew a number of opinions that complemented each other. There is the need for more studies and exchange where the points of view of both countries are considered, using a holistic and more equitable approach to binational management of river water, with the aim to achieve water security and sustainability. In this process, collaboration and understanding, as well as leadership will be essential. It is also important to share a basin vision, and integrate the local initiatives. All of this collaboration must be shielded from politics, incentives and regulations. Besides these general guidelines, there are more specific recommendations. The application of adaptive management strategies are considered an important tool to be used, given their huge potential. Other measures considered include improvements in data collection, interstate regulation (in the US case), reductions to water consumption and changing the discourse.