

## **A Comparative Study of Coastal Seas Governance Involving Chesapeake Bay and a Watershed in Mexico**

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Mexico and the U.S. share many problems in terms of undesirable environmental changes which occur as result of developmental pressures. Among these changes are eutrophication, loss of fisheries, and coastal erosion. However significant differences exist in terms of development, cultural attitudes, and political institutions in both countries and alter the way environmental problems are addressed. We undertook a comparative study in both countries to assess to what extent management approaches being implemented in the Chesapeake Bay may or not be applicable to the Usumacinta-Grihalva watershed. The former, a  $165 \times 10^3$  km<sup>2</sup> watershed comprising five separate states and the District of Columbia (DC) is managed by a non-hierarchical program under the auspices of the U.S. Environmental Protection Agency. There is no similar program in Mexico for the  $70 \times 10^3$  km<sup>2</sup> Usumacinta-Grihalva watershed. The states of Vera Cruz, Oaxaca, Campeche and Chiapas operate comparatively independently in terms of environmental regulation. Also, there has been no international vehicle to include Guatemala (which includes a significant portion of the watershed) in environmental decision-making. On the other hand, the central government in Mexico has traditionally delegated less authority to its States than the U.S. and could provide more efficient policy making than in Chesapeake Bay, which has a diffuse structure of jurisdictional responsibility. In spite of these differences, many problems (agricultural runoff, reforestation, and restoration of fisheries) are surprisingly similar in both systems and would benefit from increased exchanges of expertise. Among the elements of the Chesapeake Bay program that are especially relevant to counterparts in Mexico are stream reforestation to reduce nutrient and sediment inputs, a habitat-based approach to resource management that includes restoration of sea grasses, active involvement of concerned citizens supported by extensive public education activities, and an active and cooperative dialog between the region's jurisdictions at the levels of governors and members of state legislatures. In view of the increasing pace of development in this region of Mexico, which has experienced burgeoning growth particularly along the coast, more

cooperation between states and stakeholders (farmers, fishermen, petroleros, *etc.*) needs to be fostered to avoid future environmental crises. If indeed there is an early commitment to overall watershed management in the Grialva-Usumacinta by various public, political and environmental entities, Mexico may be able to avoid having to adopt a program as comprehensive and expensive as that on Chesapeake Bay to restore this important coastal environment and conserve its living marine resources.