

BACKGROUND

Importance of the Ayuquila watershed.

The Ayuquila river watershed covers almost 9,800 km² of the states of Jalisco and Colima, Mexico. Mexico's federal government considers it among the 15 most important rivers in the Pacific drainage and one of the country's priority biodiversity conservation areas. It is important in providing drinking water to a population close to 500,000 inhabitants, irrigating over 30,000 ha of productive agricultural lands and harboring three major natural protected areas. A high complexity in environmental conditions characterizes the watershed, consequently, a high biodiversity exists, which includes several types of forests including the highly threatened mountain cloud forest. The socio-economic and political conditions show a similar complexity as the environmental ones. Municipalities' downstream from the Autlán-El Grullo central valley experience a high social marginalization and poverty, while those upstream and within the valley show a high degree of urban development. In the entire region, migration rates to the U.S.A. are high, inducing an acculturation process, mainly among the younger population, and a loss of labor capabilities. Various medium-sized towns are located in the watershed as well as a large number of rural communities. These towns – in addition to irrigation agriculture - require increasing amounts of water and are a major source of water pollution since water treatment plants are absent. They are also the main producers of solid waste in the region. This trend strongly affects the surrounding rural communities who depend directly on the natural resource base. Urban areas are growing at the expense of fertile agricultural lands. Recently, an urban process of revalorization of the value of a healthy riparian landscape is occurring. Rural areas represent a cultural richness, due to both the presence of indigenous groups and rural communities with specific traditions and the isolated and dispersed nature of many settlements.

Important crops in the watershed include maize, sugarcane, chili peppers, agaves (for the mezcal and tequila production), and tomatoes. Most crops, with the notable exception of sugarcane, have an important export component. Cattle breeding has gained in importance since the 1970s and is considered today as one of the more important driving force of land-use change in the watershed. Loss of forest cover due to forest fires, and encroaching grazing and agricultural areas occurs both in the uplands as well as in the riparian areas, generating ecological and social instability and degradation in both terrestrial and aquatic environments. A strategic alliance between an academic institution (Manantlán Institute of Ecology and Conservation of Biodiversity-DERN-UdeG), a local government agency (Sierra de Manantlan Biosphere Reserve-CONANP) and the poor agricultural communities living along the Ayuquila river served to catalyze innovative local environmental and socio-political watershed restoration processes. Joint work has included participatory socio-environmental diagnosis, biodiversity inventories, bio-physical and chemical water quality monitoring program, public relations awareness campaign, rural community organization, and new inter-institutional arrangements to address ecological deterioration and socio-political processes that generate environmental injustice. A scheme is being developed by which research results on river/riparian areas feed directly into management and political decision-making processes, where poverty alleviation campaigns are integrally linked to

environmental restoration projects, and where citizen information/awareness assures the continuity across political administrative changes. The scheme allowed the partners to play a key role resolving disputes among stakeholders.

The Ayuquila watershed management project has been strengthening urban and rural actors in the implementation of more sustainable practices, amongst others, related to water use, management and recycling of solid wastes, soil conservation practices, and forest restoration. The action agenda of the project is driven by 8 municipalities that are united in the “intermunicipal initiative for sustainable watershed management and conservation” with the participation of a multi-disciplinary research group of sociologist, economists, aquatic ecologists, vertebrate ecologists, plant ecologists, foresters and agronomists, among other disciplines. By working at local scales and engaging municipal governments, the project is generating a novel approach to managing and financing watershed management and restoration initiatives. This project is beginning to draw national and international attention serving as a case study at different institutions (e.g., SEMARNAT, USAID, SCB, RARE Center for Tropical Conservation, LEAD-International program and the United Nations University).

Beneficiaries.

The main beneficiaries of this project are the people that live in the Ayuquila River valley. The communities that directly depend on the river for their lively hood will benefit with cleaner water and improved health conditions. The urban population will benefit from an improved landscape context and increased recreational activities. Urban dwellers will also see more efficient use of municipal resources in both solid and water wastes management. The project initiates new mechanisms for communicating, consulting and discussion local environment/health related problems that will probably spill over to other sectors of local government, thus providing benefits to those not directly related to the river. Local land owners (private or communal) with forested lands will benefit from the new programs implemented to reduce loss of forest cover and provide incentives for the ecosystem/economic services provided by the upland and riparian forest areas.

Urgency context of this proposal

One of the recurring problems of environmental stewardship projects at the local level in Mexico is continuity. This involves both economic self-maintenance mechanisms, as well as political commitment during each three-year change in municipal administrations after elections. In the Ayuquila River the IMECBIO, has a proven track record in promoting citizen participation in environmental projects and processes. The IMECBIO and the DRBSM, catalyzed in 1995 what was to become the first citizen-induced municipal solid waste recycling program in Western Mexico. In spite of strong opposition during its inception at El Grullo, it has now gone through three municipal administrative changes (including change in ruling political parties) and this continuity has been maintained due to the decisive support of the local population, brought about by an intensive participatory and organizational environmental education campaign. The project spread to the municipality of Autlán, and now, as part of this proposal is being considered at the regional level (15 municipalities). A fiduciary fund was created by the intermunicipal association as an economic mechanism to support the watershed management initiative. Although the population in all eight participating municipalities are supporting the projects, there needs

to be concrete products soon to keep the momentum going across the recent political administrative changes. Municipal presidents initiated their terms in January of 2004, and the trip to Wisconsin and Ontario, will not only serve for training, but will build trust among the municipal presidents, which is necessary to achieve group cohesion and a successful program.