IWRM Action Hub

CASE STUDY

Transboundary: Water Governance and Implementation of IWRM through Local Community Action in the Tacaná Watersheds

Wathersheds of Tacana originate on the volcano, with both shared by Guatemala and Mexico. This region is of great strategic importance for both countries since they supply water to a large number of residents in the cities located downstream and are the main source of irrigation water for agriculture. In the lower reaches, fishing is an important source of income.

Background

The watersheds of the Tacaná volcano, which stands at an altitude of 4,093 m, cover a transboundary area of 3,170 km² right in the middle of the border area of the Department of San Marcos, Guatemala and the State of Chiapas, Mexico. These watersheds are of great strategic importance for both countries since they supply water to a large number of residents in the cities located downstream and are the main source of irrigation water for agriculture. In the lower reaches, fishing is an important source of income. However, deforestation and degradation of the upper watersheds and of river banks has lead to erosion and flooding and reduced capacity of the watersheds to absorb water. Water is primarily used for domestic purposes and small-scale irrigation in Guatemala, while in Mexico, 54% of surface water is used for irrigation, 26% for human consumption and 10% for agribusiness. Coffee production and export plays an essential part in the livelihoods strategies of communities.

Marginalised farmers have been forced to higher altitudes on the volcano and have cleared forests to make way for small farms. In the low and middle parts of the catchment, agriculture sector pollutes the water and larger-scale farming has degraded the land. Unregulated land use change has been especially damaging on steep hillsides and deforestation has reduced the capacity of the soils to retain water. The resulting erosion has strongly increased the risk of floods and mudslides.

Actions taken

The Water and Nature Initiative (WANI) set up a demonstration project in the Tacaná Watersheds on the boarder of Guatemala and Mexico together with its partners. The project was a combination of livelihoods projects and bottom-up integrated governance of water resources management with the major goals to raise awareness and disseminate information about water resources management. WANI and partners supported the design of numerous community pilot projects which addressed water, soil and environmental

conservation. Eighty six pilot projects were carried out by community groups in Guatemala and 21 in Mexico. Women make up 90% of these groups, empowering them to take a more proactive role in the development of their communities which was formerly the exclusive domain of men.

Through an ecosystems approach, which focuses on environmental restoration for livelihood security, these small scale initiatives have energised the communities to self-organise and has enhanced their development opportunities. Within the project numerous community pilot projects to improve livelihoods through water, soil and environmental conservation were carried out. The community pilot projects were also part of the mechanism to bring stakeholders together to organize themselves into Microwatershed councils. Additionally, when the Tropical Storm Stan hit the area in 2005, activities to restore water supplies were carried out by WANI. Since 2008, WANI and partners have facilitated in high level training courses on transboundary watersheds in Guatemala and Mexico.

Outcomes

The WANI Tacaná Watersheds demonstration project has built a platform for wider influencing of regional and national water management. The promotion of integrated water resources management and resilience at the local, national and regional level has continued with other projects which mostly focus on governance through microwatershed councils and building resilience through water management. The continued livelihoods work is also a strong component in these complementing projects. Beginning with a grassroots approach to water
management, increased knowledge and information and the improvement of environmental health and livelihoods, the Tacaná region has shown the way forward in scaling up local level approaches to national level initiatives. Overall, by 2011, a total of 107 projects had been implemented in all microwatersheds, covering the areas of conservation and environmental restoration, food security, income generation and basic social services.

Lessons Learned

The understanding that developing local governance and organisational structures benefit and complement IWRM actions. Integrating local communities and their social structures into Mirco-watershed councils leads to greater cohesion and unity.

Strengthening community-based alliances and integrating them with municipal and national development institutions increases coordination between administrative levels.

Developing disaster risk management planning should be integral to the overall watershed management planning and not just as an emergency response.

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