



## CASE STUDY

# Kenya: Challenges facing the implementation of IWRM in Lake Jipe Watershed



## Summary

Lake Jipe is facing a number of environmental and management problems which if not addressed, might lead to the disappearance of the lake. These problems include siltation, soil erosion, recurring droughts leading to shrinking fishery, deforestation, reduced lake run off, overgrazing and invasive waterweeds. The Lake Jipe Basin Integrated Management Plan (2009-2014) was developed in a consultation with various stakeholders including government, civil society, private sector, and the local communities.

## Background

Lake Jipe watershed is an important transboundary wetland ecosystem at the border of Kenya and Tanzania that covers an estimated area of 30km<sup>2</sup>. Lake Jipe is facing a number of environmental and management problems including siltation, soil erosion, recurring droughts leading to shrinking fishery, deforestation, reduced lake run off, overgrazing and invasive waterweeds. Other problems include transboundary resource management issues as well as limited income generating activities among the communities. Water pollution is another major challenge facing the basin. This is brought about by inappropriate liquid waste management from surrounding settlements, urban and peri - urban centers where the use of septic tanks, soak pits and open drains is commonly used to dispose sewerage, industrial discharge, and other wastewater material.

Preliminary efforts to address the degradation of Lake Jipe basin adopted a top-down approach whereby the government excluded local communities from the project design, planning, and decision-making process. As a result, community needs, and aspirations were not addressed which led to further marginalization of the poor. At the same time, all government led projects in the basin have

failed because they contributed to the displacement of local people from their communal land. This resulted in a lack of motivation to conserve Lake Jipe - local people do not have secure tenure rights to use and manage the resources. Furthermore, swampy areas have been illegally reclaimed for rice fields where water is derived through flooding irrigation. These swamps or floodplains have a role in groundwater recharge and filtration points thus its disappearance will have adverse environmental consequences.

## **Actions taken**

The Lake Jipe Basin Integrated Management Plan (2009-2014) was developed in a consultation with various stakeholders including government, civil society, private sector and the local communities. It focuses on improving farming systems, sustainable livestock production, conservation and management of water, fisheries, and forest resources. The Plan is an enabling guideline that outlines actions to achieve sustainable and equitable use of land and water resources in the basin for

sustainable livelihoods. In terms of the social systems, the management plan aims to create awareness on wetlands values and wise use principles, capacity building of the riparian community and involve them in participatory action research. Furthermore, there is a clearly defined monitoring and evaluation framework to track progress and ensure successful implementation of the management plan.

Also, the Government of Kenya and Tanzania have signed a memorandum of understanding for the joint transboundary management of the Lake Jipe basin. The MoU aims to establish a joint cooperative framework for sustainable development and management of the ecosystems and set up institutional arrangement for the management of ongoing projects, programmes, and initiatives within the basins. It is worth noting that the MoU is silent on key issues such public participation and collaborative research efforts.

## **Outcomes**

Despite having a 5-year management plan for the lake Jipe watershed, the catchment is experiencing severe environmental degradation. The management plan has proved to be ineffective mainly because the basin is not in a protected area therefore there is increased encroachment at the shores of Lake Jipe and the nearby tributary rivers in attempt to secure food security. Poor governance is a contributing factor to the failure of the management plan. This is because there is lack of complementary conservation by-laws which makes it difficult to enforce the proposed strategies into actionable deeds. In addition, there is lack of ground personnel to monitor compliance. Lastly, the continuous loop of dependency on natural resources in the basin due to lack of diversified livelihood options limits wetland conservation efforts.

Over 90% of population adjacent to lake Jipe live in rural areas and depend primarily on agriculture for their livelihood. The impact of bad agriculture practices includes soil erosion and siltation of rivers and Lake Jipe, reduced flow, lowering of water table, more sediment load produced into the rivers and water bodies increase nutrient level, which create conducive environment for growing of, water weeds. Since most farmers do not have user rights, they are not willing to invest in permanent soils and water management techniques thus resulting in soil and land degradation. The issue was well recognized in the planning stage, however, it was not fully addressed in actions.

## **Lessons Learned**

Although the legislation is in place, it does not guarantee the positive results without “soft” measures including consensus building, social change instruments and shared vision planning.

The first step to ensure a successful management plan implementation is to build and strengthen the institutional and technical capacity of government officials and policy makers.

This case study demonstrated a complexity of issues ranging from ecosystem protection, agriculture policy aspects, institutional barriers, right based approach and empowering women and other vulnerable groups. Thus, IWRM approach is highly relevant tool to be applied.

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