IWRM Action Hub

CASE STUDY

Transboundary: Junction of land degradation, biodiversity loss and water resources management in Kagera and Nyando catchments of Lake Victoria basin

Summary

The Lake Victoria Basin is facing major ecological challenges stemming from unsustainable agriculture practices and deforestation, impacting the livelihoods of the local communities. Actions have been taken, including an action plan for management of the basin and the establishment of Lake Victoria Basin Commission. This case study provides insights into the link between policy formulation and implementation and enforcement and the importance of rooting the policies within the local communities.

Background

Over the last 50 years the Lake Victoria and its watersheds have undergone rapid ecological changes. Currently, major environmental threats in the Lake Victoria Basin (LVB) include unsustainable agriculture and deforestation in the catchments.

This has resulted to sedimentation and proliferation of aquatic plants in the lake, most notably phytoplankton and an increase in water hyacinth mainly originating from the Kagera river basin.

The threats facing the lake have caused considerable hardship for the population depending on it for their livelihoods and have also reduced the biodiversity of the lake’s fauna and flora. More than 80% of the population in LVB is engaged in agricultural production and the basin forms a significant part for agriculture and livestock keeping that maintain the livelihoods of small-scale farmers. Deforestation coupled with bad agricultural practices has exacerbated the problem of sedimentation in the lake. As a result, soil erosion in prime agricultural areas within the catchments causes food productivity losses.

In Kagera and Nyando catchments there is also persistent land degradation accompanied by serious loss of biodiversity with impacts on the agro-ecosystems thus affecting the livelihoods of local people who largely depend upon the natural resources for their living.

As the main contributor of water inflow into Lake Victoria, the Kagera River is a major source of sediment and phosphorus flow into Lake Victoria. Of the eleven main rivers draining into Lake Victoria from Kenya, the Nyando river basin has the highest average

slope and sediment transport capacity. Floods in the Kano plain have become more severe and frequent as the river gradually losses its ability to buffer environmental variability.

Actions taken

The riparian countries of LVB through the East African Community (EAC) and its protocol for sustainable management of the LVB have developed an action plan for management of the entire lake and its catchments across sectors.

In 2003, the EAC signed a Protocol for Sustainable Development of LVB. The Protocol has played a crucial role in the establishment of an institutional framework for better management of the LVB. Under the protocol, Lake Victoria Basin Commission (LVBC) was formed as an apex institution responsible for all the management initiatives in the LVB.

Other important management bodies involved in the LVB include Nile Basin Initiative (NBI) and the Nile Equatorial Lakes Subsidiary Action Programme (NELSAP) focusing on the promotion of economic growth, eradication of poverty and a reversal of environmental degradation.

There are significant differences in institutional structure between the two catchments (Kagera and Nyando).

Kagera being a transboundary river basin means that the countries within the catchment (Burundi, Rwanda, Tanzania and Uganda) would have to set and agree on a management structure in reference to the policy framework of the LVBC. However, in terms of institutional setting Kagera in the mean time does not have any institutional framework as the KBO has been dissolved and the proposal to form Kagera basin management unit are still under way and not yet formalized. There is no management structure in place since KBO was dissolved in 2004. Currently there is a proposal to form a Kagera Basin Management Unit (KBMU) to be under LVBC but it is still in an early development stage. Each country tries to manage their portion of the river basin.

On the other hand, Nyando as a single country catchment which is managed by the WRMA and specifically under the Lake Victoria South meaning Nyando has a proper management structure. There is also a CMS in Nyando though focusing mainly on flood management.

In terms of policy framework and land management practice implementation, both catchments face the same challenges. In addition, land management policies within a catchment (upstream and down stream) vary significantly.

Outcomes

Policy framework and formation of institutions in LVB was driven by the EAC and a new institutional framework under the LVBC has provided a platform for coordination and the formation of strategies for catchment management.

However, the coordination and exchange of information is mainly at top levels. There is a clear relationship between poverty and environmental degradation reflected by the inability to adopt and undertake conservation measures by majority of the people. Most people in the basin are struggling for basic needs of life and the thought of conservation is far from obtaining those needs.

Although significant progress has been made in formulating land management policies and the promotion of land management practices, their practical application at subsistence level still remains low. This is due to inadequate extension services to reach the small scale farmers much remains to be done for scaling up and translating the policies into concrete actions at the micro watershed level.

Due to lack of a strong legislation support, the main problem with the policies is the gap at national levels and their implementation at local level. Many of the policies have not been translated into legislations hence they cannot fully be turned into action due to lack of legislation support. Hence there is a need to bridge the gap between national and local level to foster an understanding of the policies.

The link between the national and local levels often suffers from budgetary cuts and low capacities. In addition, the continued creation of new ministries and departments presents a major obstacle in terms of having meaningful coordination.

Lessons Learned

Formation of village watershed committees is crucial to act as mediators among stakeholders, especially local communities within a catchment and the government agencies at district level. It makes the management plans well rooted in the local communities in a catchment.

Involvement of local communities through watershed committees also enables the use of local knowledge and resources in developing cost-effective plans and to increase the acceptability of these plans among stakeholders.

Use of incentives creates a more positive attitude to conservation among farmers and pastoralists and helps accelerate conservation. Wide adoption of incentives in the catchments encourages subsistence farmers to take conversation measures which prevents land degradation in the basin.

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