IWRM Action Hub

CASE STUDY

Kenya: Shared risks and opportunities in water resources: Seeking a sustainable future for Lake Naivasha

Summary

Lake Naivasha is a renowned Ramsar site located in the Rift Valley in Kenya. The water in Lake Naivasha also anchors a flourishing horticultural industry. The Lake Naivasha Riparian Association (LNRA) was established in 1929 to protect local land owner's rights. The LNRA became more strident in trying to balance the impact of the expanding commercial interests surrounding the lake with protecting its environmental integrity.

Background

Lake Naivasha is an internationally renowned Ramsar site located in the Rift Valley in Kenya. But unlike most other designated wetlands of international importance, the water in Lake Naivasha also anchors a flourishing horticultural industry. It is unique in that it is home to both an internationally renowned environmental treasure as well as a blossoming agriculture industry that exports high value fresh vegetables and cut-flowers to European and English markets. The two most valuable crops in the Naivasha basin are cut flowers and vegetables. The vegetables grown in Lake Naivasha contribute approximately KSh6.65 billion ($95 million) to the Kenyan economy. Kenya is also one of the world's largest exporters of cut-flowers and Lake Naivasha is at the heart of the nation's floriculture industry, accounting for more 70% (KSh28 billion) of the country's cut flower exports. The Naivasha basin involves a broad group of stakeholders including large horticulture companies and their employees, smallholder farmers, local government and basin inhabitants, and those dependent on the broader Kenyan economy and trade.

For an agriculture-based economy that is completely dependent on its water resources for economic production, the social, economic, financial (investment), regulatory and reputational risks associated with a deteriorating bio-physical environment are significant. Given its links to the national economy and the international export markets, these risks are not localized within the basin, but extend through to the rest of Kenya. The discharge of municipal wastewater and irrigation return flow poses threats to the water quality in the lake. The direct use of Lake Wetland areas for the cultivation of horticulture, cattle ranching and game during drought periods are having detrimental consequences for the lake's ecological functioning. The risk of deterioration of the lake's water quality and ecosystems pose secondary risks such as reputational loss, withdrawal of existing investments and loss of future investment potential.

Actions taken

Local water resource management in Naivasha finds its roots in the Lake Naivasha Riparian

Association (LNRA), which was originally established in 1929 to protect local landowners rights. With the advent of the floriculture industry in the early 1980s, the LNRA became more strident in trying to balance the impact of the expanding commercial interests surrounding the lake with protecting its environmental integrity. The Lake Naivasha Growers Group (LNGG) was also established in the late 1990s by a group of progressive commercial farmers who recognized that their commercial interests were tied up in the sustainable use of the lake. Although they have different incentives, both of these groups have established capacity and are well versed in the environmental issues of the lake. They have access to funding and have good communication networks.

In addition, the government has established the Lake Naivasha Imarisha Board to coordinate all actions and actors in the basin. Through a combination of consumer and buyer pressures, the private sector has made some significant strides in self-regulating water use in commercial farming operations. The Lake Naivasha Growers Group (LNGG) is a commercial farming body that has its own code of practice relating to water use and environmental impacts that its members have to follow.

Outcomes

The case study highlights the nature and magnitude of shared risk and opportunity between various players around Lake Naivasha. Instead of coalescing around the popular perception that the lake is at risk of permanent collapse, stakeholders rather have an opportunity to act collectively to optimize the management of their water resources to safeguard against some of the varied risks that water stresses create. This strategy to increase water efficiency is grounded on three interlocking platforms: improved governance, fostering partnerships and promoting more responsible individual water use.

Governance: Governance in the catchment is clearly hamstrung by the lack of accurate and available data on the state of the basin's water resources. There is critical knowledge gap related to abstracted water use in the basin and also the interaction of water flows between the lake and groundwater reserves. It is therefore impossible to implement effective water resource governance measures without knowing how much water is currently being abstracted by stakeholders and similarly knowing how much water is available.

Partnerships: There is a general recognition of the issues around the lake and its catchment, but

coherent and proactive management of the water resources in the basin has been limited during the period of rapid development over the past two decades. This resulted in mobilization of both private sector and the government to find a lasting solution. Today, there is also widespread acknowledgement that the water and land management of the basin must improve, which will require adequate institutional arrangements and resourcing. There is a need for a central mechanism that can collect, synthesize, and distribute information, as well as build partnerships between water users in the upper catchment and those around the lake. The Payment for Environmental Services (PES) programme provides a useful precedent of such a partnership. Water users around the lake were able to influence the land use practices of smallholder farmers in the upper catchment by sharing knowledge and promoting more sustainable agriculture practices that have led to tangible welfare increases. It is important recognize that these partnerships need to apply to all stakeholders, not only the water users in the catchment.

Responsible Action and Water Stewardship: Incentives and disincentives for more responsible individual action need to be created. A strong regulatory net incentivizes individual water users to adapt their behavior. A mechanism that can be used is the application of a water use (stewardship) standard that promotes self-regulation.

Lessons Learned

The power to protect is jointly held by many. In this particular basin, it is held by government ministers, research and development specialists at state-of-the-art flower farms; subsistence farmers in the upper catchment; and investors, consumers, and development funders.

This diversity is matched by the range of arguments that motivate them to act. Revealing how water flows through economies provides powerful incentive for cooperative action; helps the various stakeholders understand their shared risk and opportunity in better water management.

The progress and achievements in Lake Naivasha are infinitely replicable, as long as people are willing to see how their futures are linked to their neighbors' and to nature's.

Organisation
World Wide Fund for Nature - WWF

Year
2014

Country
Kenya

Region
Africa

Keywords
Food and Nutrition , Financing , Stakeholder engagement

Thematic Tagging
Ecosystems/Nature-based solutions , Water services
Language English

Supporting Materials
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Related IWRM Tools
Basin Organisations, Risk Assessment, Ecosystem Assessment, Payments for Ecosystem Services

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