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Enhancing water resource management through an inclusive green economy approach: The case of Lake Victoria Basin

The present policy brief draws from an upcoming report by the Economic Commission for Africa (ECA), informed by a survey of nine selected projects in the Lake Victoria Basin complemented with literature, which has established that applying inclusive green economy-related principles and approaches enhances the outcomes of water resource management objectives. This policy brief provides a synthesis of the findings and recommends, among other things, the development and implementation of an inclusive green economy strategy or framework for water resource management in the Basin under the Lake Victoria Basin Commission.

Lake Victoria Basin

The Lake Victoria Basin is endowed with abundant water and other natural resources, and is vital to its communities and countries owing to its role in supporting valuable ecosystems and economic activities. Its sustainable management and use underpins economic productivity, livelihood systems and environmental sustainability in the region. This requires the continual adoption and integration of new and emerging principles and approaches that produce desirable outcomes and impacts, such as improvements in livelihoods, water use efficiency and ecosystem productivity for electricity generation, among other things.

The Lake is transboundary and of significance to basin countries, which are also the East African Community Partner States, namely Burundi, Kenya, Rwanda, Tanzania and Uganda. Despite its significance, the Lake itself and the entire Basin have undergone marked degradation and ecological changes, mainly due to human activities over the past decades. These have resulted in, among other impacts, eutrophication, declining water quantity and quality, proliferation of invasive fauna and flora and changes in trophic diversity, all of which affect its ecological and economic importance. Although there are efforts to manage water resources in an integrated manner, especially following the establishment of the Lake Victoria Basin Commission (LVBC), there is a need to explore new approaches that could further enhance economic, social and environmental outcomes.

East African Community and management of the Lake Victoria Basin resources

Although basin countries have national management frameworks, basin-wide management was hugely influenced by a transboundary framework under the auspices of the East African Community (EAC). The framework includes the 1996 EAC Treaty; the 2001 Convention for the Establishment of the Lake Victoria Fisheries Organization, the 2006 Protocol on Environment and Natural Resources Management and the 2003 Lake Victoria Protocol. The latter established the Lake Victoria Basin Commission as an apex institution of the EAC for the Basin. In addition, the EAC Development Strategy sets out priority programmes to be implemented during a specified five-year period; the current is from 2011-2016. The EAC framework seeks to harmonize national frameworks.

Inclusive green economy principles, approaches and practices in selected projects

The nine assessed projects are set out in the table below. Although these projects focused on conserving or restoring ecosystems to protect the environment, watersheds or the lake itself, they all (at varying levels)

integrated economic and social dimensions. They also attempted to provide alternative livelihoods to reduce overdependence on environmental resources. Furthermore, the projects were triggered by environmental concerns arising from the unsustainable use of environmental and natural resources to meet social and economic needs, and from inadequate environmental protection during the execution of development activities. This echoed the complex cause-effect relationships among the three dimensions of sustainable development.

consistent with inclusive green economy principles – was applied. Social inclusion was reinforced by paying special attention to and supporting vulnerable groups, such as women and young people. The projects generated employment either directly or indirectly through the provision of skills and opportunities in green growth-related sectors such as ecotourism, sustainable farming and agroforestry. The transboundary projects promoted equity, fairness and justice among the countries through basin-wide initiatives.

Nine assessed projects

Project name	Lead implementing organization	Period
Kagera Transboundary Agroecosystems Management Project (TAMP)	Food and Agriculture Organization	April 2010 – February 2015
Lake Victoria Environmental Management Project phase II	LVBC	2009 – 2013, extended by two years
Mount Elgon Regional Ecosystem Conservation Programme	LVBC	1 March – 31 November 2012
Mara River Basin Management Initiative	World Wide Fund for Nature	August 2004 – June 2017
Sio-Malaba-Malakisi Transboundary Integrated Water Resources Management and Development Project	Nile Basin Initiative	2005 – 2015
Dunga Wetland Alternative Livelihoods Project	Econfinder, Kenya	2011 – 2014
Mount Elgon Integrated Watershed Management Project	Vi -Agroforestry	January 2011 – March 2013
River Nyando Wetland Resource Utility Optimization Project	VIRED International	2006 – 2012
Yala SWAMP Project	Econfinder, Kenya	2010 – 2014

Source: Adapted from ECA, Enhancing waters resources management through inclusive green economy: a survey of selected projects in the Lake Victoria Basin, 2016.

The assessment established that all the projects, to varying degrees, explicitly set out to tackle economic and social concerns. Conceptualized as watershed conservation initiatives, livelihood interventions were also aimed at eradicating poverty, which is generally considered a cause and consequence of water resource degradation, mainly arising from a direct dependence on natural resources extraction.

Economic and social outcomes

Synergies among economic, social and environmental interests were harnessed through nature-based interventions that enhanced environmental quality and provided alternative livelihoods. They included tree planting, bee keeping, aquaculture and agroforestry so as to protect watersheds while enhancing agricultural productivity. The projects also promoted value addition to commodities from agriculture or ecosystem goods. Moreover, payment for ecosystem services to finance co-management through community participation –

Environmental outcomes

The projects generated several environmental benefits while employing a number of good practices, including the use of indigenous trees to rehabilitate degraded areas; using and improving indigenous technologies/practices such as terracing in Rwanda; and harnessing green and low cost technologies such as a hydrodrum to pump water in a village without electricity in Kericho, Kenya. They also promoted rainwater harvesting and flood control. Besides preventing further degradation of watersheds and water quality, they helped to increase water yields in reservoirs. Furthermore, they supported water pollution control interventions through the promotion of cleaner production processes in industry; and the provision of sanitation facilities, pollution risks management and navigation safety to prevent oil spills into the Lake. They also promoted alternative sources of energy for cooking to reduce tree cutting for fuelwood; and the restoration of degraded lands and ecosystems such as wetlands and forests.

Awareness creation, community participation and partnerships

Project implementation created awareness, promoted community participation and, in various ways, created partnerships with communities, Governments, civil society, the private sector and among various projects implementers. In this regard, good practices covered the following: establishing associations as a means to leverage participation and financial resources; awareness-raising through evidence-based or demonstration approaches; signing of voluntary agreements or memorandums of understanding with communities; and promoting cleaner production technologies as incentives. Partnerships provided a means to leverage resources, knowledge, information and goodwill.

Strengthening institutional arrangements, policies and research

Phase II of the Lake Victoria, Environmental Management Project made progress in harmonizing effluent standards for the Basin, which were approved by the East African Legislative Assembly; a Water Resource Bill is scheduled for approval by the same body. In addition, in 2012, the project developed a basin-wide sustainable land management strategy to promote sustainable land management practices. In Kenya, effluent discharge control plans (a 'soft' approach) were adopted in 2007 to persuade industries to meet effluent discharge requirements. The Sio-Malaba-Malakisi project promoted joint planning and implementation of transboundary water resource management interventions in the sub-basin. However, none of the assessed projects had set-out to undertake or support research activities for generating new knowledge for water resource management.

Enabling measures, challenges and opportunities

The successful implementation of the projects was facilitated by good leadership and political will at the national and basin levels; policies, laws, regulations and institutional arrangements in basin countries; and financing, capacity-building and awareness-raising. At the same time, inadequate funding, inappropriate development activities in ecologically sensitive areas, weak law enforcement, high levels of poverty, and climate variability and change constituted some important challenges to project implementation.

Notwithstanding, many opportunities abound for enhancing inclusive green economy-based management of the Basin's water resources. These range from the Basin's natural resource endowments; the existence of policies and legal frameworks that incorporate elements of inclusive green economy; the support and management framework of EAC and its organs; existing indigenous practices and technologies; national, regional and international non-governmental organizations working at the national and basin levels; and the substantial number of development partners supporting water resource management in the Basin.

Recommendations

The following would further promote inclusive green economy principles and approaches in water resources management in the Basin:

- Developing of an inclusive green economy strategy or framework for water resource management under the auspices of the LVB
- Improving the use of integrated assessment tools and methodologies in project design and implementation beyond environmental and social assessments that have been applied by the Sio-Malaba-Malakisi project
- Scaling-up/out existing initiatives, especially good practices by local and central Governments and the private sector through micro-financing
- Strengthening awareness creation and capacity-building to target all stakeholders, including local politicians, to engender more meaningful engagement
- Strengthening partnerships with the private sector to leverage investments and promote compliance
- Building strategic alliances with relevant local and international agencies to promote inclusive green economy approaches that foster sustainable water resource management
- Strengthening delivery on commitments through programme management processes that comply with the Paris Declaration on Aid Effectiveness, foster the timely release of funds and deter fraudulent practices.

ECA policy briefs are based on various analytical work and research on the social and economic development of Africa carried out at, or in collaboration with, the Commission. The mandate of ECA is to promote economic and social development in member States and foster regional integration in Africa.

For more information, please contact the Green Economy and Natural Resources Section (GENRS), of the Special Initiatives Division (SID), ECA, Addis Ababa, Ethiopia, at +251-11-544-3089.