



IMPROVING WATER QUALITY IN LAKE VICTORIA BASIN

SOCIAL AND LIVELIHOOD DEVELOPMENT

Improving water quality in the Lake Victoria Basin (LVB) requires a long-term, comprehensive, holistic, coordinated, multi-donor, and multi-stakeholder approach.

This approach includes:

1. Waste Management (including industrial effluents);
2. Sustainable Land and Water Management and
3. Social and Livelihood Development.

This Note summarizes Interventions to improve the socio-economic conditions and livelihood options of the people in the LVB.¹



Lake Victoria basin. Image credit: World Bank Geo Watershed Generator

POLLUTION SOURCES AND INTERVENTION OPTIONS

Sources

Sediment from land degradation and erosion from upstream forest and agricultural areas, *fecal, liquid, and solid waste*, and *untreated industrial effluents* from urban areas around the lake and upstream are the main sources of LVB pollution. The effects of this pollution (e.g., increase in water hyacinth, pollution of groundwater,

contamination of domestic water supply, destruction of wetlands) ultimately *worsen water quality in the lake and rivers feeding into the lake* (increasing biological and chemical oxygen demand (BOD & COD), fecal coliform, nitrogen, phosphorous, heavy metals, sediment, turbidity, etc.). Worsening water quality contributes to *reduced fish stocks and biodiversity in the lake, diminished lake-based livelihoods* (e.g., fishing, selling fish, navigation), *worsened health impacts* (e.g., increasing water-borne diseases), *increased conflicts* (e.g., over fishing areas and between pastoralists and farmers), *worsening climate*

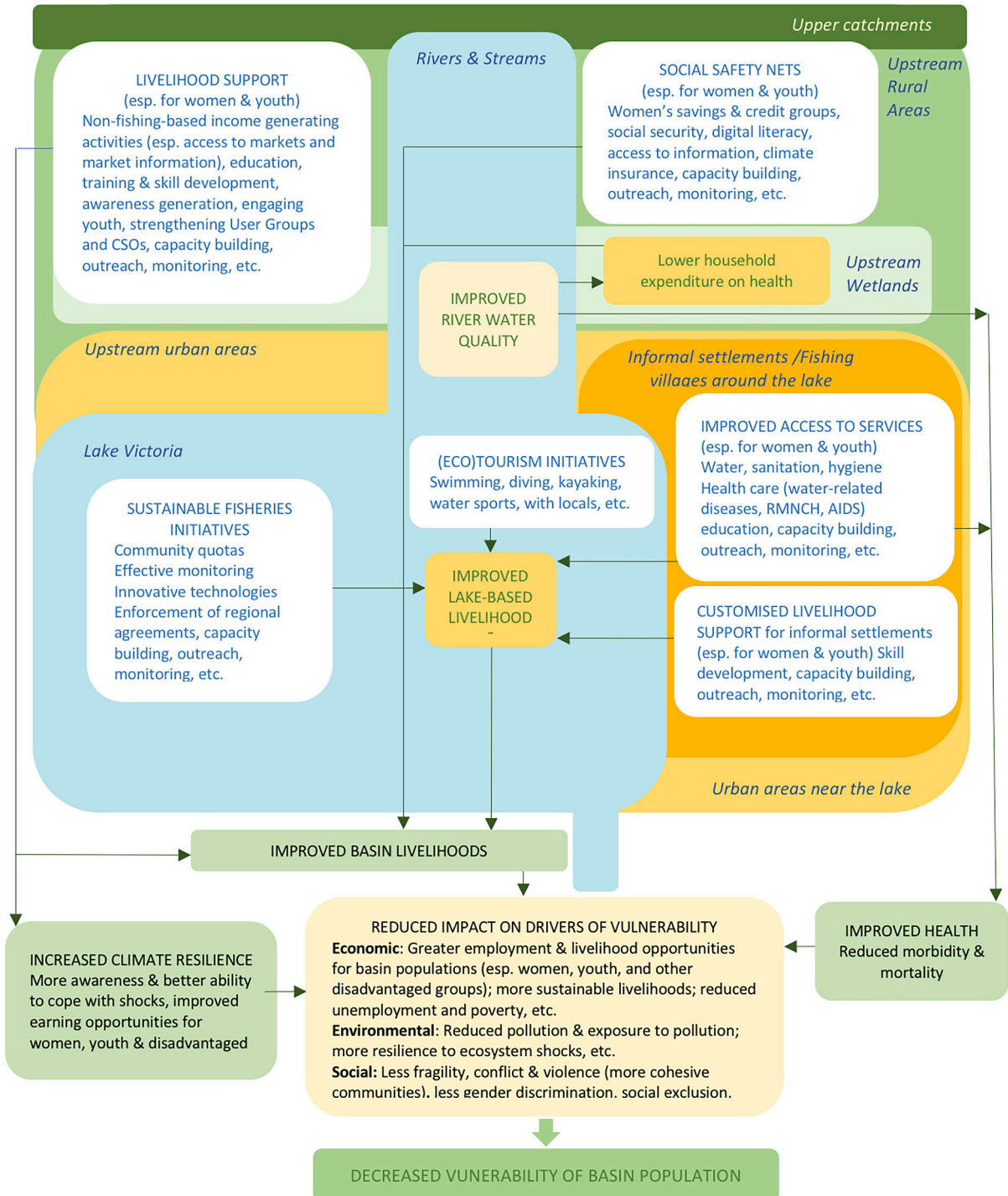
¹ *Strategy Note on Improving Water Quality in the Lake Victoria Basin*, Great Lakes Water Quality Advisory Services and Analytics (P172554), Washington DC: World Bank, May 2021. This study looked into the causes of degradation of water quality in Lake Victoria and explored potential engagement areas to improve it. The study documented global and regional lake restoration lessons and recommended a long-term, multi-country strategy for the Lake Victoria Basin, in the following areas: catchment management, sanitation, industrial pollution management, and water quality monitoring, with livelihood support, gender equity, and social inclusion mainstreamed in this work.

impacts (e.g., flooding of lake-side settlements), displaced people from floods and droughts), and affects the drivers of vulnerability.

Options

These include support for *fishing-based livelihoods* (including sustainable fisheries, facilitating infrastructure, and customized support for vulnerable communities) and *non-fishing-based livelihoods* (including ecotourism

initiatives (supporting local initiatives that promote swimming, diving, kayaking, and water sports for tourists), *social safety nets*, and *improved access to basic services* (e.g., health, education, and water, sanitation and hygiene (WASH)), all within a *community-based, gender-sensitive, and socially equitable implementation framework*, with a special focus on women, youth, and children (see the schematic diagram and details of intervention options below).



Legend



Intervention options

- **Provide alternative livelihoods, especially for women, youth, and other disadvantaged groups.** Alternative sources of income and food, especially for those with high dependence on natural resources (e.g., land, water, and forest resources) could not only address endemic unemployment, poverty, and economic deprivation but also reduce environmental degradation. This could include investments in economic infrastructure (e.g., rural roads, micro-irrigation, markets, and storage facilities), economic and financial services (e.g., business skills and financial advisory services) and connectivity (e.g., improved roads and communication networks). This will need a comprehensive assessment on alternative livelihoods and local economic development strategies to determine the economic, financial, and strategic feasibility (e.g., for small town connectivity and cross-border trade).
 - **Improve access to development services, especially for disadvantaged groups.** Investments in services such as water, sanitation, and hygiene (WASH), education, and health are vital for the general population, but special efforts are needed to ensure that women, children, youth, the elderly, the disabled, widows, and other disadvantaged groups can build their human capital, skills, and capabilities. Instead of focusing only on small-scale livelihoods (or low-capital investment activities), the lens should be broadened to include even high-capital social enterprises, such as ecotourism and water sports (e.g., swimming, diving, and kayaking), giving local populations shares in enterprises and training and employing local youth to work in them.²
 - **Develop sustainable gender-equitable fisheries:** Apart from the techno-economic aspects of sustainable fisheries (e.g., regulating fishing equipment and fish catch through community quotas), ensuring equitable access to fishing zones and markets, adequate monitoring, innovative technologies, capacity building, outreach, regional coordination), strong measures are necessary to negate the gender bias in local fishing communities by strengthening and expanding existing initia-
- tives. While much of the emphasis has been on enumerating women's labor and economic contributions to the sector and on documenting their relative marginalization, more needs to be done to address the huge gender gap in small-scale fisheries by (1) assessing the discrimination women face in fisheries; (2) documenting how women fish workers are redefining gender relations by challenging and transforming the structural disadvantages they face;³ (3) ensuring that laws and policies address issues in the entire fish supply chain (e.g., pre-harvest, harvest, and post-harvest); and (4) identifying and addressing the social, economic, and cultural barriers that reinforce gender-based vulnerabilities in other sectors, through complementary policy changes and implementation measures.⁴
- **Provide adequate technical and financial resources for gender and social inclusion plans and strategies.** Instead of focused projects aimed at improving gender equity and social inclusion, these are frequently 'integrated' into a wide range of development projects (e.g., water supply, sanitation, watershed management, and fisheries). However, in such contexts, they tend to be relegated to capacity building and training, and sufficient resources must be allocated to ensure that these critical aspects are mainstreamed into all parts of the project planning cycle, monitored for effectiveness, and any weaknesses addressed by sourcing the required expertise.⁵
 - **Leverage social safety net and community development programs in the region.** This can be achieved by scaling up the delivery of cash transfers and grants linked to tackling the drivers of vulnerability, transitioning from natural-resource-dependent livelihoods, and mitigating the unequal impacts of water quality degradation. Tackling the underlying social drivers of water quality degradation, and its unequal impacts, invariably requires finding ways to incentivize households to transition to alternative livelihoods and to compensating poor and vulnerable households affected by water quality improvement initiatives. This requires leveraging social policy and programs such as social safety nets, social protection programs, and community development programs.

² Tourism activities may have to wait till the water levels are cleaner, but a useful model of locally-beneficial tourism is <https://www.villageways.com/>.

³ Smith, H. (2017) Small fish, big problems: Gender-based violence in Lake Victoria's fisheries. Duke's Human Rights Centre. Franklin Humanities Institute, Duke University. <https://humanrights.fhi.duke.edu/small-fish-big-problems-gender-based-violence-in-lake-victorias-fisheries/>

⁴ FAO (2017) *Towards gender-equitable-small-scale fisheries governance and development: A Handbook*, Rome: Food and Agriculture Organization <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1105891/>

⁵ During the stakeholder interviews, resource persons with experience implementing gender interventions throughout the project cycle in LVB noted that resources are frequently allocated only at the planning phase and are absent as the program or project moves to implementation.



Promising approaches

- **Strengthen partnerships between regional institutions, national agencies, local governments, and communities to tackle the multi-sectoral drivers of vulnerability.** Coordinated action and investments are required at all levels. Examples that systematically address the multidimensional drivers of vulnerability by working across multiple levels include the following Bank-supported initiatives: (1) the Lake Chad program for regional coordination, connectivity, and agricultural livelihoods (as part of a regional strategy involving coordinated actions at the national, local and community levels); (2) the Intergovernmental Authority for Development (IGAD) in the Horn of Africa (to develop and implement a multi-sectoral and multi-level approach to tackling resilience, including improving access to groundwater); and (3) in Indonesia, where the national strategy includes the Investing in Nutrition and Early Years Program (at four levels, to converge a multi-sectoral package of interventions in vulnerable households).
- **Learn lessons and upscale existing social safety and community development initiatives.** In Burundi, the success of the Social Safety Net Program (SSNP) - which aims to provide regular cash transfers to

extremely poor and vulnerable households while strengthening the government's delivery of social support services- has led to a second phase of the Program. Implementing similar initiatives in the other LVB countries could target vulnerable households and support transitions to alternative livelihoods at scale. Also, community development programs focused on displacement and environmental management in Burundi, Rwanda, and Uganda (e.g., the Socio-Economic Refugee and Host Community Project in Rwanda and the Integrated Community Development Project in Burundi) could be leveraged as part of a regional effort - with limitations and caveats that must be addressed during the planning and implementation of such initiatives.⁶

- **Leverage a range of livelihood pilots in the region.** Livelihood pilots - including aquaculture (UN Women), the Katosi Women Initiative, the Health of People and the Environment (HOPE) project, initiatives of the Lake Victoria Fisheries Organization (LVFO) and the Nile Basin Discourse - that have successfully demonstrated proof of concept (e.g., initiatives supporting savings groups, micro-credit, and revolving funds) can be systematically reviewed for financial and other support for scaling up. For example, there are several savings and credit

⁶ The Bank has looked at cash transfers and noted that: "While there are few long-term studies of unconditional cash transfers, the available evidence suggests that their short-term effects are not sustained. Sometimes, this may be because the transfers put beneficiaries on an earlier/accelerated growth path than non-beneficiaries, with the two groups converging over time. In other cases, unconditional cash transfers end up being palliative, meaning that they improve outcomes while the income support is in place, but fail to cause sufficient accumulation of human (or other forms of) capital to alter long-term outcomes. In such cases, UCT beneficiaries end up back at square one soon after the cessation of transfers." (<https://blogs.worldbank.org/developmenttalk/how-should-we-design-cash-transfer-programs>).

organizations in Uganda (e.g., SACCOs) and in Burundi (e.g., solidarity groups) that rotate funds among group members at nominal interest rates. Between 2013 and 2020, the NEWMAP in Nigeria successfully created sustained alternative livelihoods for approximately 20,000 beneficiaries (organized into Community Interest Groups) who were impacted by soil erosion. These are movements that can be grown into Federations of such Groups (each of which can use its corpus to leverage loans from commercial banks), non-banking finance companies, and livelihood cooperatives, facilitated by NGOs and supported by government programs and banking regulation changes, as the Self-Help Group (SHG) movement in India has demonstrated. Following an assessment to gather best practices and lessons learned, effective programs could be developed to generate alternative livelihoods, inculcate environmental protection behaviors, and ultimately reduce key drivers of water quality degradation in rural areas, wetlands, and human settlements.

- **Deliver results-based financing to local authorities and communities for tackling the multi-sectoral drivers of vulnerability.** The Bank is supporting the Government of Kenya to deliver results-based financing to strengthen local climate resilience and reduce community vulnerability. This includes performance-based grants for strengthening institutions across multiple sectors and enhancing citizen participation in the identification and management of risks and vulnerabilities and investment grants for local climate action. The Bank has also supported Ethiopia to use results-based financing mechanisms for landscape management. These approaches, with special efforts to target socially excluded and other marginalized groups, can provide powerful incentives for all actors to focus on a shared set of outcomes, enhance local capacity, transparency, and accountability, and accelerate the process of determining what works, where, and why to achieve results.
- **Active regional and national NGO networks:** The Nile Basin Discourse is a network of over 600 civil society organizations, with chapters in each of the five EAC countries, while sector-wise national networks also exist (e.g., UWASNET in Uganda). There are also strong local NGOs, including ones working exclusively with the fishing communities (e.g., Katosi Women's Development Trust, Uganda), focusing on women's health and livelihoods. Following a detailed assessment, providing targeted capacity building, financial support, and networking with other groups can increase their reach and effectiveness significantly.

Programming principles

- **Take a holistic approach to water quality degradation.** At the strategic level, this requires targeting the most vulnerable populations, working at a sufficiently large scale to make a difference to vulnerability, and adapting specific strategies to tackle problems faced by the most marginalized people, including women, informal settlers, and others. Investments are required in alternative livelihoods, connectivity, service delivery, and resourcing gender and social inclusion plans. Finally, key design principles include local ownership, stakeholder mapping, and multi-pronged gender-based violence (GBV) approaches. Conflict-sensitive approaches will also be critical given the high rates of conflict across the basins.
- **Engage with local leaders, communities, and other stakeholders.** Local communities are often not engaged in a substantive way in the planning and design of projects meant to benefit them. They may not be provided with the necessary information or are simply excluded when activities are undertaken in their community. This can lead to a lack of buy-in and ownership of activities, and even conflict, thus jeopardizing the long-term sustainability of the project. Lessons from an in-depth case study on Community-led Total Sanitation in Tanzania and several other case studies demonstrate that when local stakeholders are engaged in defining development challenges and solutions via program activities, the results are more relevant to local needs and are more effective than traditional donor-led approaches. This challenge of community buy-in was also raised during the stakeholder consultations with multiple agencies with experience in LVB emphasizing the need to conduct awareness-raising campaigns in local languages that account for the different ways that people access and understand information, and their ability to access information using a diversity of communication methods.
- **Adopt a “peace lens” or conflict-sensitive approach to implementation, particularly in regions and communities exposed to violent conflict and fragile institutions.** Building on local, regional, and international good practice and lessons learned, programming could consider supporting a range of activities at all levels to strengthen and interact with existing (e.g., formal, informal, and traditional) mechanisms and institutions, including dispute resolution institutions, community security initiatives, and peace-building and social cohesion activities among host and refugee communities. Both the Water and the Social Sustainability and Inclusion (SSI) Global Practices at the World Bank have invested in understanding how to deliver development



interventions that are sensitive to the local context and strengthen social cohesion and capacity for local authorities, traditional institutions, and communities to manage conflict and prevent violence.

- **Ensure gender-sensitive approaches to all interventions.** Gender-sensitive approaches can help to improve the suitability, sustainability, and reach of project interventions by focusing on and involving women and other socially disadvantaged groups in planning, design, implementation, monitoring, and management. Embedding gender equity and social inclusion into policy at all levels is crucial to achieving water and sanitation for all, which in turn advances many other parts of the Sustainable Development Goals (SDG0 agenda, particularly education and work.⁷ According to the African Development Bank (AfDB), water infrastructure projects can catalyze significant social change in the areas where they are implemented. Following the policy of the African Water Facility (which works with project planners to ensure that gender and social equity are addressed in the implementation and eventual outcomes of each program), programs should ensure that women
- and other socially disadvantaged groups (e.g., girls, the poor, youth, and the disabled) can receive specific benefits (e.g., knowledge transfer or income generation) and participate effectively in decision-making and all other aspects of the project cycle (from planning and implementation to monitoring and post-project sustaining of benefits).
- **Use a multi-pronged approach to tackle gender-based violence.** Given that the Bank places a strong emphasis on tackling GBV at all project phases, it will be critical that a comprehensive approach is integrated into the planning and implementation process, particularly if any future programming involves construction.⁸ As part of its work, the Association of Fishers and Lake Users (AFALU) of Lake Victoria has tried to share general information with men about GBV. However, they feel there is a need for a two-pronged approach that incorporates a comprehensive plan for people who are facing GBV so they know their rights while also having access to shelters where they can report their experiences. It is also important to have a targeted plan in place to work with men and boys to address the drivers of GBV.

⁷ UN Water at <https://www.unwater.org/water-facts/gender/>

⁸ The World Bank adopted measures in response to a Uganda case of GBV on a road construction project to integrate these findings into the Bank's 2015 Procurement Framework, current social safeguard practices, the Environmental and Social Framework (ESF) of 2016 and the [Labor Influx Guidance Note](#).

**FOR MORE INFORMATION:**

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