

LAKE VICTORIA STATE OF THE BASIN REPORT 2025

WHAT IS THE LAKE VICTORIA BASIN AND WHY DOES THIS REPORT MATTER?



45 Million+

People depend on
the basin



5

Partner Nations
Tanzania | Uganda |
Rwanda | Kenya |
Burundi



259,800 km²

Total Basin Area



68,800 km²

Lake Surface Area



OVERVIEW

The Lake Victoria Basin State of the Basin Report 2025 is the first-ever comprehensive health check of one of Africa's most vital freshwater systems. Produced by the Lake Victoria Basin Commission (LVBC) with experts from all five Partner States, it brings together all available data on the lake's environment, people, economy, and governance into one shared picture.

KEY FINDINGS



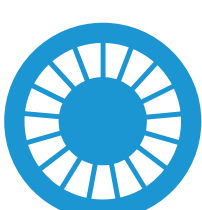
Lake Victoria is the world's largest tropical lake and the second largest by surface area globally, yet it averages only 40 metres deep.



80% of the lake's water comes from direct rainfall onto its surface, making it extremely sensitive to climate change.



The basin spans Tanzania, Uganda, Kenya, Rwanda, and Burundi, with only one outlet: the Victoria Nile at Jinja, Uganda.



The report serves as a baseline to measure progress in years ahead and align with the SDGs, Africa's Agenda 2063, and climate agreements.

KEY MILESTONES

- First-ever comprehensive State of the Basin assessment for Lake Victoria.
- Report jointly developed and validated by all five Partner States.
- Establishes a shared basin-wide data and monitoring framework.
- Creates a baseline for future investment, policy, and environmental tracking.

"For the first time, we have gathered all the facts about our lake in one place. This information will help us make better decisions to protect and use this precious resource wisely."

"Shared Waters, Shared Future: Uniting for a Sustainable Lake Victoria Basin."



LAKE VICTORIA STATE OF THE BASIN REPORT 2025

OVERVIEW OF THE LAKE BASIN BASIN

 **45 M**
Population (2025)

 **165M**
Projected
population by 2050

 **60%**
LVB share of
combined Partner
State GDP

 **65–74%**
Population aged
under 25



OVERVIEW

The Lake Victoria Basin is the demographic and economic heart of East Africa. It supports over **45 million** people across five countries, with a population growing from **3.5 to 3.8%** per year. Understanding who lives in the basin, how they earn a living, and why poverty and environmental damage reinforce each other is essential for sustainable management.

KEY FINDINGS

-  The basin is one of the most densely populated in Africa, averaging 350 people per km², compared to 35 per km² for Africa overall.
-  65–74% of the population is under 25, creating both a youth dividend opportunity and a major employment challenge.
-  Agriculture employs 32–85% of the workforce across Partner States, mostly in rain-fed smallholder farming.
-  Access to basic services remains low: water access ranges from 62–82%; sanitation from 24–74%; electricity from 11–75%. 46–74% of the basin population lives below the international poverty line.
-  Tourism contributes roughly 10% to regional GDP and provides around 7% of employment.
-  Rapid urbanization, estimated at 4–6% per year, is creating pollution hotspots as waste goes directly into the lake.

KEY MILESTONES

- Positions the Lake Victoria Basin as a major economic and population hub driving regional growth and livelihoods across East Africa.
- Highlights the basin's growing population, projected to rise from 45 million to 165 million by 2050.
- Delivers the first integrated basin-wide assessment connecting livelihoods, urban growth, poverty, and environmental sustainability.

"Most people in the Lake Victoria Basin are under the age of 25. With better education, skills training, and job opportunities, the 'youth bulge' can be turned into an asset for the region."

"Shared Waters, Shared Future: Uniting for a Sustainable Lake Victoria Basin."



LAKE VICTORIA STATE OF THE BASIN REPORT 2025

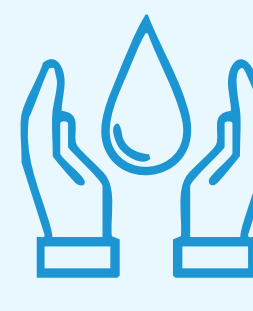
NATURE AND BIODIVERSITY



200–300
Cichlid fish
species in the lake



33%
Decline in wetland
area since 1980s



18.9%
Basin area under
protection



76%
Freshwater species
assessed as
threatened



OVERVIEW

The Lake Victoria Basin is one of Africa's most ecologically significant regions, hosting extraordinary biodiversity including the world-famous cichlid fish. Its forests, wetlands, rivers, and lake provide clean water, fish, flood protection, climate regulation, and cultural heritage for millions. But this natural wealth is under growing threat.

KEY FINDINGS



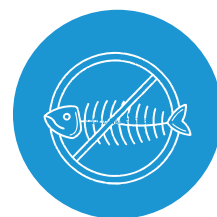
Lake Victoria is globally famous for its cichlid fish diversity, with 200–300 species, many found nowhere else on Earth.



The basin's wetlands, forests, and satellite lakes provide services worth billions: clean water, flood control, carbon storage, and biodiversity.



Wetland area has declined by approximately 33% since the 1980s due to drainage for agriculture and urban expansion.



Of 651 freshwater species assessed, 204 are endemic (found only here) and around 76% are threatened.



Water hyacinth, an invasive weed, remains a recurring threat, spreading rapidly when pollution and nutrient levels rise.



A new invasive concern is giant salvinia (*Salvinia molesta*), spreading into the lake from the upper Nile system.



Rangelands declined from 42.4% to 34.0% of land cover between 2017 and 2024, while cropland and built-up areas increased.

KEY MILESTONES

- Establishes the first basin-wide biodiversity and ecosystem health assessment for the Lake Victoria Basin.
- Highlights Lake Victoria as one of the world's most unique freshwater biodiversity hotspots, home to hundreds of endemic cichlid species.
- Identifies wetlands, forests, and satellite lakes as critical natural infrastructure.
- Strengthens the case for nature-based solutions and ecosystem restoration as central pillars of basin management and investment planning.

"Healthy ecosystems are the lake's natural defence system. When forests are cleared and wetlands are drained, the lake loses its ability to absorb floods, filter pollution, and sustain fish stocks."

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LAKE VICTORIA STATE OF THE BASIN REPORT 2025

WATER RESOURCES



23 BCM

Annual river
inflows to the lake



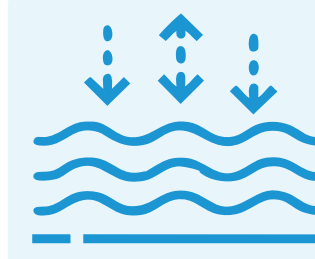
179

Streamflow
monitoring stations



55%

Of monitoring
stations are
functional



76%

Annual renewable
groundwater
recharge



OVERVIEW

The Lake Victoria Basin holds enormous water resources but managing them wisely is increasingly difficult. Rivers, groundwater, and the lake itself are under pressure from climate extremes, deforestation, outdated management rules, and inadequate monitoring. This chapter reveals both the richness and the fragility of the basin's water system.

KEY FINDINGS



80% of Lake Victoria's water comes from direct rainfall, with only 20% from rivers, making the lake exceptionally sensitive to rainfall variability.



Lake levels have swung dramatically: from record lows in 2006 to record highs in 2020 and again in 2024, a range of about 4 metres.



Only about 55% of the basin's 179 river flow monitoring stations are fully functional, leaving critical data gaps.



The rules governing water release from Lake Victoria, the 'Agreed Curve', were set in the 1950s and no longer reflect today's climate or water demands.



A major milestone was reached in 2025: the first coordinated, basin-wide lake survey in over 20 years, using the research vessel RV Jumuiya.

KEY MILESTONES

- Delivers the first consolidated basin-wide assessment of rivers, groundwater, lake levels, and water monitoring systems.
- It marks the first coordinated Lake Victoria survey in over 20 years.
- It reinforces the need to modernize the Agreed Curve to reflect current climate realities and water demands.
- It strengthens the foundation for a shared regional water information and monitoring system across the Basin.

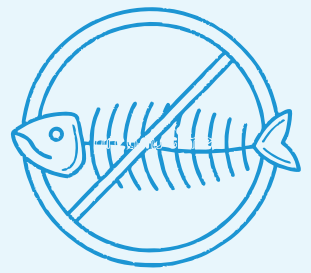
"Managing water without good information is like driving at night with your headlights off. You only see the problem when you are already in danger."

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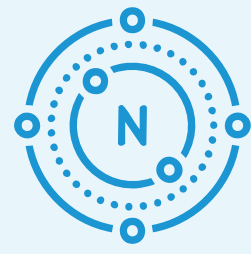
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WATER QUALITY



40%

Of lake bottom
now a 'dead zone'



38,828
tons /year

Total nitrogen
entering the lake



9,270
tons /year

Total phosphorus
entering the lake



\$135,000/
month

Extra treatment costs
at Ggaba plant, Uganda



OVERVIEW

Water quality in Lake Victoria is in serious and measurable decline. Pollution from sewage, agriculture, industry, and mining is creating dead zones, toxic algal blooms, and rising health risks for millions of people who depend on the lake for drinking water, food, and livelihoods. This is the most urgent environmental challenge facing the basin today.

KEY FINDINGS



Around 40% of Lake Victoria's bottom now lacks enough oxygen to support fish and aquatic life, creating widespread dead zones.



A 'pollution halo' of degraded water surrounds the lake's shoreline, most severe in Winam Gulf, Murchison Bay, and Mwanza Gulf.



Fish landings in Kenya fell from approximately 200,000 tonnes in 2002 to around 98,000 tonnes in 2022, a 50% collapse.



Rivers bring 80% of the lake's pollution despite contributing only 20% of its water, carrying sewage, fertilisers, and sediment.



Kisumu invested ~\$70 million in a new water treatment plant; Mwanza upgrades have cost over \$100 million.



Schistosomiasis affects 40–80% of people in some lakeshore areas due to contact with contaminated water.

KEY MILESTONES

- Provides comprehensive basin-wide assessment of water quality pressures and pollution hotspots in Lake Victoria.
- Establishes clear scientific evidence linking pollution, ecosystem decline, public health and economic costs.
- Strengthens the case for coordinated basin-wide wastewater investment and pollution control measures.
- Advances a shared regional framework for water quality monitoring, targets, and cross-border data cooperation.

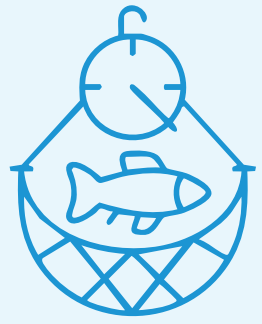
"The lake can be saved, but only if action is taken now. The science is clear and the solutions already exist. What is needed is strong political will, sustained financing, and effective cooperation among all five basin countries."

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LAKE VICTORIA STATE OF THE BASIN REPORT 2025

HOW WATER IS USED



\$1.12B

Annual fisheries
value at landing
sites



3-4M

Livelihoods from
fisheries



10%

Tourism share of
regional GDP



2.4B m³

Water used
annually; set to
double by 2050



OVERVIEW

Water from the Lake Victoria Basin underpins virtually every aspect of economic and social life in the region. From the fish that feed millions to the hydropower that lights homes, water is the invisible engine of East Africa's development. But growing demand, pollution, and climate change are putting this engine under severe strain.

KEY FINDINGS



Lake Victoria supports the world's second-largest inland fishery, dominated by Nile perch (53% of catch), dagaa (23%), and Nile tilapia (7%).



40% of large Nile perch are caught before they can reproduce, while 30–40% of dagaa is wasted post-catch due to poor storage.



Hydropower provides roughly two-fifths of total electricity generation in the basin; electricity production has more than tripled since 2000.



Water demand is projected to more than double from 2.4 billion m³ today to 5.4 billion m³ by 2050.



Lake transport supports 5 million livelihoods and is growing as a low-carbon alternative to road haulage.



1,500 to 5,000 people drown on Lake Victoria each year, making it one of the world's deadliest inland waterways.

KEY MILESTONES

- Highlights the Lake Victoria Basin as a critical driver of food security, energy production, trade, transport, and livelihoods across East Africa.
- Establishes the growing link between water demand, economic growth, and long-term resource sustainability in the basin.
- Reinforces the strategic value of fisheries, hydropower, and lake transport to regional economies and employment.
- Identifies major opportunities for investment in irrigation, clean energy, water efficiency, and safer lake transport systems.

"Water in the Lake Victoria Basin is not just a resource. It is the foundation of food, energy, transport, and livelihoods for over 45 million people. How we manage it in the next decade will define the region's future."

"Shared Waters, Shared Future: Uniting for a Sustainable Lake Victoria Basin."



LAKE VICTORIA STATE OF THE BASIN REPORT 2025

CLIMATE CHANGE, VULNERABILITY, AND RESILIENCE.



0.2–0.3°C

Warming per
decade since 1960



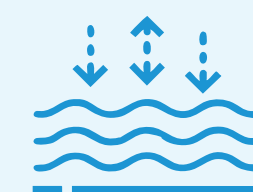
3x

Increase in major
floods and droughts
since the 1950s



38.5M

People potentially
displaced by 2050



2.4B m³

Climate disaster
losses across 5
countries
(2020–2024)



OVERVIEW

Climate change is no longer a future threat for the Lake Victoria Basin. It is a present reality that is already reshaping rainfall patterns, lake levels, food systems, and human health. The basin is warming faster than the global average, and the consequences are accelerating.

KEY FINDINGS



The basin has been warming at 0.2–0.3°C per decade since 1960, slightly faster than the global average, with nights warming faster than days.



Extreme weather events have tripled in frequency since the 1950s: from one major flood or drought every three years to one to two per year.



The floods of 2019–2020 displaced over 200,000 people and pushed Lake Victoria to its highest recorded level.



Climate losses from 2020–2024: Kenya \$1.85 billion, Tanzania \$1.26 billion, Uganda \$920 million, Rwanda \$480 million, Burundi \$380 million.



Early warning systems for storms have already reduced fisher deaths by around 30%, demonstrating the value of climate information.



Meeting climate adaptation and mitigation needs is estimated to require more than \$130 billion by 2030.

KEY MILESTONES

- Establishes a basin-wide evidence base on climate risks and resilience in the Lake Victoria Basin.
- Confirms climate change as a major driver of floods, droughts, ecosystem stress, and economic losses.
- Demonstrates the value of early warning systems in protecting lives and livelihoods.
- Strengthens the case for investment in climate adaptation, resilient infrastructure, and nature-based solutions.

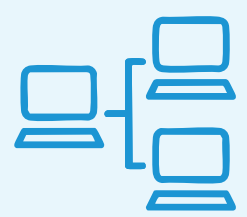
"Climate change is already reshaping life in the Lake Victoria Basin. Between 2020 and 2024, climate-related disasters caused a combined \$4.8 billion in losses across the five partner countries. The window to act is narrowing."

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LAKE VICTORIA STATE OF THE BASIN REPORT 2025

HOW LAKE VICTORIA IS GOVERNED



130+

Local authorities
in LVRLAC
network



95%

Reduction in water
hyacinth since 1990s



55% - 68%

Urban water access
improvement
(2010 – 2020)



3

Governance tiers:
regional, national,
local



OVERVIEW

Governing a lake shared by five nations is extraordinarily complex. The Lake Victoria Basin has one of Africa's strongest regional water governance frameworks, with well-established institutions, legal agreements, and cooperation mechanisms. But a persistent gap between good plans and effective implementation continues to allow pollution, overfishing, and environmental decline.

KEY FINDINGS



The three-tier governance structure links the LVBC at regional level, national ministries, and local communities including Beach Management Units.



The Nile Cooperative Framework Agreement entered into force in October 2024, a historic shift toward fairness and shared responsibility.



Osiendela's Radio Lake Victoria broadcasts reach fishing communities on islands and remote landing sites, demonstrating civil society's role.



The framework-function gap: the rules are good, but enforcement, financing, and coordination remain too weak to match the scale of the challenge.

KEY MILESTONES

- Highlights Lake Victoria Basin as one of Africa's strongest models for transboundary water cooperation.
- Demonstrates successful regional action through the 95% reduction of water hyacinth.
- Marks major progress in expanding urban water access across lakeshore towns between 2010 and 2020.
- Strengthens the foundation for shared basin governance through the Nile Cooperative Framework Agreement and regional coordination mechanisms.

"The Lake Victoria Basin has the right institutions and agreements. The challenge is not a lack of plans, but the difficulty of implementing them consistently and at scale. Good governance requires sustained financing, skilled people, and real accountability."

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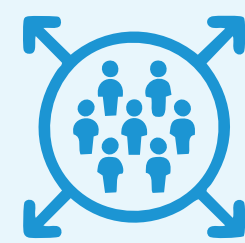
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LOOKING AHEAD: A SHARED FUTURE



\$1.9B

Needed for sanitation
across 100+
lakeshore towns



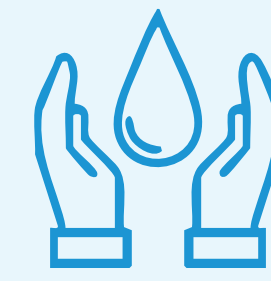
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Future pathways:
crisis, partial
improvement, or
transformation



7

Strategic
recommendations
for the basin



5-year

Recommended
SoBR monitoring
cycle going forward



OVERVIEW

The final chapter of the SoBR asks the most important question: what future do we choose for Lake Victoria? The science is clear. Two very different futures are possible by 2050. The difference between them is not money or technology alone, but political will, regional cooperation, and sustained action starting now.

KEY FINDINGS



Scenario 1 (Business as Usual): Pollution and degradation continue, fish stocks collapse, toxic blooms spread, poverty deepens, and climate shocks displace millions.



Scenario 2 (Partial Improvement): Some progress in selected towns and catchments, but action remains uneven and many root causes go unaddressed.



Scenario 3 (Transformative Cooperation): Countries invest together in clean cities, restored wetlands, sustainable fisheries, and climate-resilient infrastructure, leading to a recovered lake and a thriving blue-green economy by 2050.



The most urgent investment is sanitation: \$1.9 billion is needed to address wastewater and solid waste from 100+ urban centres around the lake.



Restoring forests, wetlands, and catchments often deliver greater benefits at lower cost than large engineering works.



A 5-year SoBR monitoring cycle is recommended, tracking environmental health, people's wellbeing, and governance performance.

KEY MILESTONES

- Presents a shared long-term vision for restoring and sustainably managing the Lake Victoria Basin by 2050.
- Identifies sanitation investment and ecosystem restoration as top priorities for basin recovery and resilience.
- Establishes a recommended 5-year SoBR cycle to track environmental, social, and governance progress.
- Strengthens the call for sustained regional cooperation, financing, and implementation across all five Partner States.

"We can continue on our current path and watch the lake deteriorate, taking our prosperity with it. Or we can make bold changes now and secure a healthy, thriving lake for our children and grandchildren. The choice is ours."

"Shared Waters, Shared Future: Uniting for a Sustainable Lake Victoria Basin."

